

4.4 BIOLOGICAL RESOURCES

4.4 BIOLOGICAL RESOURCES

This section describes the baseline biological resources conditions in the project area and potential biological resource impacts resulting from construction, and operation and maintenance of the proposed project and alternatives to the project.

4.4.1 Environmental Setting

Survey Area

The project area includes the substation parcel, staging yards, and all temporary and permanent work areas along the power line alignment. For the purposes of inventorying and analyzing potential biological resource impacts, a biological survey area was established that includes the project area plus a 500-foot buffer extending from the project area. The inclusion of the buffer area in the biological survey area allows for the assessment of potential indirect effects to habitats and species that occur outside of and adjacent to the project area. The biological survey area is shown on Figure 4.4-1.

Methods

The biological resource analysis focuses on the potential for the project to affect sensitive (special-status) species or habitat. Species are considered to be special-status if they meet any of the following criteria:

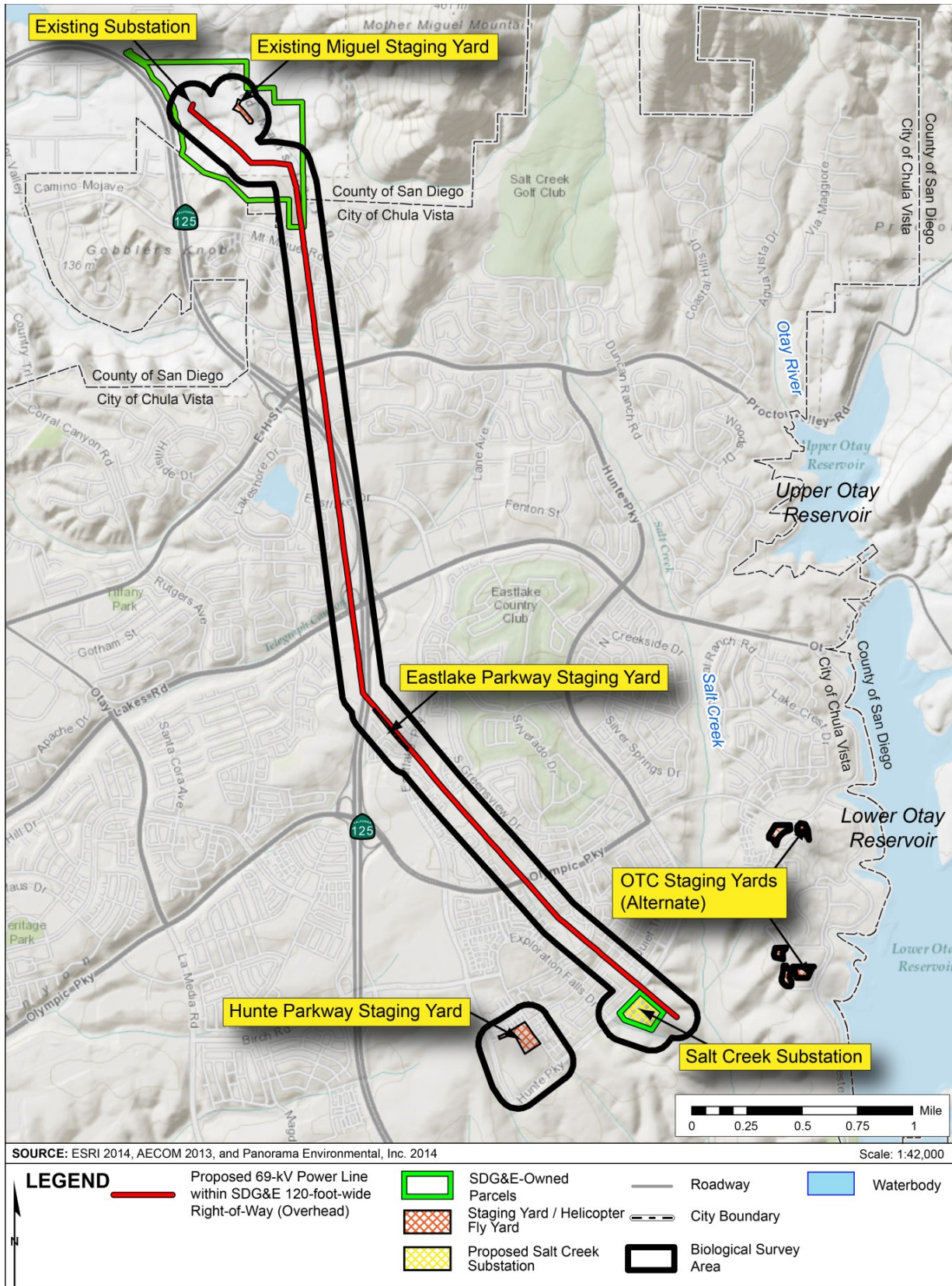
- Plant and animal species listed as endangered, threatened, or candidates for listing under the federal Endangered Species Act (ESA)
- Plant and animal species listed as endangered, threatened, or candidates for listing under the California Endangered Species Act (CESA)
- Animal species designated as Fully Protected, as defined in California Fish and Game Code Sections 3511, 4700, 5050, and 5515
- Animal species designated as Species of Special Concern by CDFW
- Plant species included on California Rare Plant Rank (CRPR) as List 1, 2, 3, or 4
- Species covered under the SDG&E Subregional NCCP
- Species that meet the criteria for endangered, rare or threatened under CEQA Guidelines Section 15380

The biological resource analysis consisted of literature review, site visits, habitat assessments, and focused surveys.

The potential for special-status species to occur in the project area and vicinity was determined through a process using literature and database review and biological surveys, as discussed below. The survey results are documented in Appendix D, Tables D-1 and D-2. Species with a moderate or high potential to occur in the project area or nearby are discussed further in this document.

4.4 BIOLOGICAL RESOURCES

Figure 4.4-1 Biological Survey Area



4.4 BIOLOGICAL RESOURCES

Literature and Database Review

SDG&E and the CPUC conducted database review for the project by submitting queries to the California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS) Electronic Inventory. The results of the queries were reviewed for documented occurrence of special-status species in the nine-quadrangle area surrounding the project area: Jamul Mountains, Otay Mesa, Imperial Beach, National City, Otay Mountain, Dulzura, La Mesa, El Cajon, and Alpine quadrangles. The CPUC also reviewed SDG&E's NCCP and Low-effect HCP for Quino checkerspot butterfly (QCB) for information on covered species and SDG&E mitigation requirements. The CPUC reviewed the City of Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan for information on species and City Preserve areas near the project.

Surveys

The biological survey methods are summarized in the Biological Resources Technical Report for the Salt Creek Substation PEA (AECOM 2013e). Surveys of the biological survey area were conducted between 2011 and 2013, and survey reports were provided in SDG&E's Application for a PTC and SDG&E supplemental filings to the CPUC. The CPUC reviewed and evaluated the following survey reports to assess baseline biological resource conditions within the project area:

- *Vegetation and Rare Plant Summary Report for the Proposed Salt Creek Substation* (AECOM 2011d)
- *45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly for the Proposed Salt Creek Substation* (AECOM 2011c)
- *45-Day Summary Report of 2011 Protocol Surveys for the Coastal California Gnatcatcher for the Proposed Salt Creek Substation* (AECOM 2011a)
- *45-Day Summary Report of 2011 Protocol Surveys for Least Bell's Vireo for the Proposed Salt Creek Substation* (AECOM 2011b)
- *Western Burrowing Owl Presence/Absence Surveys for the Proposed Salt Creek Substation* (AECOM 2011e)
- *Rare Plant Survey Report for the Proposed Salt Creek 69kV Transmission Line Installation Project* (AECOM 2012c)
- *45-Day Summary Report of 2012 Focused Surveys for Quino Checkerspot Butterfly for the Proposed 69kV Transmission Line Installation Project* (AECOM 2012a)
- *45-Day Summary Report of 2012 Focused Surveys for Coastal California Gnatcatcher for the Proposed 69kV Transmission Line Installation Project* (AECOM 2013b)
- *Western Burrowing Owl Presence/Absence Surveys for the Transmission Line Installation Project* (AECOM 2012e)
- *Reconnaissance-Level Jurisdictional Waters Assessment Summary for the Salt Creek Transmission Line from the Miguel Substation to the Proposed Salt Creek Substation* (AECOM 2012d)
- *January 17, 2012 Jurisdictional Wetlands/Waters Determination (Eastlake Drive to Otay Lakes Road Transmission Line Segment)* (AECOM 2012b)
- *Aquatic Features Summary for the Proposed Salt Creek Substation Site* (AECOM 2013d)

4.4 BIOLOGICAL RESOURCES

- *2013 Western Burrowing Owl Summary Report for the Salt Creek Substation and Power Line Project, Chula Vista, California* (AECOM 2013a)
- *45-Day Summary Report of 2013 Focused Surveys for the Quino Checkerspot Butterfly for the Proposed Salt Creek Substation Project for SDG&E* (AECOM 2013c)
- *Jurisdictional Delineation Report for the Salt Creek Substation Salt Creek 69-kV Transmission Line Installation Project, Chula Vista, CA* (AECOM 2013f)

Vegetation mapping was conducted by SDG&E in March, April, and June 2011, March 2012, and July 2013. Habitats were classified based on the dominant and characteristic plant species in accordance with vegetation community classifications following Holland (1986), as modified by Oberbauer et al. (2008). Focused rare plant surveys followed the survey protocols in *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000); *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2009); and *CNPS Botanical Survey Guidelines* (CNPS 2001).

SDG&E performed focused surveys for QCB, coastal California gnatcatcher, least bell's vireo, and western burrowing owl (AECOM 2011a; AECOM 2011b; AECOM 2011c; AECOM 2011e; AECOM 2012a; AECOM 2012e; AECOM 2013a; AECOM 2013b; AECOM 2013c). QCB investigations included habitat assessments to identify suitable habitat and focused surveys following USFWS protocols (USFWS 2002). Coastal California gnatcatcher and least bell's vireo surveys followed the USFWS survey protocol for the species (USFWS 1997; USFW 2001). Western burrowing owl surveys followed the California Burrowing Owl Consortium Guidelines (CBOC 1993).

SDG&E performed a preliminary delineation of waters of the state and U.S. in 2012 (AECOM 2012b). SDG&E subsequently performed a jurisdictional delineation of potential wetland areas (AECOM 2013f) that followed the 1987 USACE Wetlands Delineation Manual and the 2008 Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region, Version 2.0 (Environmental Laboratory 1987; Environmental Laboratory 2008).

Agency Consultation

SDG&E submitted survey reports for the proposed project to CDFW and USFWS as required in the SDG&E Subregional NCCP. CPUC contacted USFWS and CDFW to discuss the proposed project. The following topics were discussed with the agencies:

- Potential for occurrence and impacts to state and federally listed species and species of special concern
- Mitigation required under the HCP and NCCP
- Preconstruction survey requirements and buffers
- Fish and Game Code Section 1600 notification requirements

Habitat Types/Vegetation Communities

Fourteen vegetation communities and other land cover types were identified within the biological survey area. Table 4.4-1 provides a summary of the characteristics of each vegetation community and other land cover types and the acreage within the project biological survey area

4.4 BIOLOGICAL RESOURCES

Table 4.4-1 Vegetation Communities and Other Land Cover Types within the Biological Survey Area

Vegetation Community or Land Cover	Proposed Substation (Acres)	TL 6965 Transmission Corridor (Acres)	Staging Yards (Acres)	500-foot Buffer (Acres)	Total (Acres)
Riparian and Wetland					
Coastal and Valley Freshwater Marsh	-	0.05	-	0.41	0.46
Herbaceous Wetland	-	0.16	-	0.03	0.19
Mulefat Scrub	-	0.22	-	-	0.22
Riparian Scrub	-	0.14	-	0.98	1.12
Riparian Woodland	-	0.23	-	0.16	0.39
Southern Willow Scrub	-	0.01	-	-	0.01
Unvegetated Channel and Concrete Brow Ditch	0.13	0.26	-	0.09	0.48
<i>Riparian and Wetland Subtotal</i>	<i>0.13</i>	<i>1.07</i>	<i>-</i>	<i>1.67</i>	<i>2.87</i>
Upland					
Diegan Coastal Sage Scrub	1.14	4.14	-	49.23	54.51
Native Grassland	1.59	-	-	-	1.59
Nonnative Grassland	5.26	38.89	23.40	127.03	194.58
Valley Needlegrass Grassland	-	-	-	1.70	1.70
<i>Upland Subtotal</i>	<i>7.99</i>	<i>43.03</i>	<i>23.40</i>	<i>177.96</i>	<i>252.38</i>
Other Land Cover Types					
Disturbed Habitat	2.42	1.23	0.55	1.90	6.10
Landscape/Ornamental	-	6.51	0.05	55.40	61.96
Urban/Developed	1.10	19.86	2.90	426.26	450.12
<i>Other Land Cover Subtotal</i>	<i>3.52</i>	<i>27.60</i>	<i>3.50</i>	<i>483.56</i>	<i>518.18</i>
TOTAL	11.64	71.70	26.90	663.19	773.43

Source: AECOM 2013e

4.4 BIOLOGICAL RESOURCES

by project component. Vegetation communities mapped within the biological survey area are shown in Appendix D, Figures D-1 through D-11.

Special-status Plants

Special-status plant species listed on the CNDDDB within the nine-quadrangle area surrounding the project area, and their potential for occurrence in the biological survey area, are presented in Appendix D, Table D-1. The probability of occurrence within the project area was determined for each of these species using the following criteria:

- **Present.** Species detected during recent surveys within the biological survey area.
- **High Potential.** Species with known recent (i.e., last 25 years) recorded occurrences/populations in the biological survey area or nearby and for which highly suitable habitat occurs within the biological survey area. Suitable habitat includes all necessary elements to support the species (e.g., hydrology, soils, and cover).
- **Moderate Potential.** Species with known recent (i.e., last 25 years) recorded occurrences/populations nearby; however, suitable habitat in the biological survey area 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 biological survey area, 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 biological survey area is highly disturbed or extremely limited. A low potential is assigned to annual or perennial species that would have been detectable during a focused survey in the appropriate blooming period but were not found; however, small populations or scattered individuals are still considered to have a low potential to occur.
- **Absent.** Species with no suitable habitat in the project area.

Special-status plant species known to occur within the region that have a low, moderate, or high potential to occur within the biological survey area are discussed in Appendix D. Special-status plant species that are present or have a moderate or high potential to occur in the project area are identified in Table 4.4-2. Refer to Appendix D, Figure D-12 through D-17, for mapped special-status plant species locations.

Special-status Wildlife

Special-status wildlife species listed on the CNDDDB within the nine-quadrangle area surrounding the project area are provided in Appendix D, Table D-2. The probability of occurrence within the project area was determined for each of these species using the following criteria:

- **Present.** Species detected during recent surveys in the biological survey area.
- **High Potential.** Species with known recent (i.e., last 25 years) recorded occurrences/populations in the biological survey area or nearby, and for which highly suitable habitat occurs within the biological survey area. Suitable habitat includes all necessary elements to support the species (e.g., habitat type, cover, and food resources).

4.4 BIOLOGICAL RESOURCES

- **Moderate Potential.** Species with known recent (i.e., last 25 years) recorded occurrences/populations nearby; however, suitable habitat in the biological survey area 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 biological survey area, 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 study area is highly disturbed or extremely limited. Also, species with known historical (i.e., more than 25 years) recorded occurrences/populations from the site or nearby; however, the suitable habitat in the study area has been severely reduced or disturbed since past documentation. Additionally, species for which potentially suitable habitat is present within the study area, but the reported extant range is far outside the study area.
- **Absent.** Species with no suitable habitat in the project area or vicinity.

There are 31 special-status wildlife species known to occur within the region that have a moderate or high potential to occur within the project area (AECOM 2013e). Special-status wildlife species with a moderate or high potential to occur in the project area are identified in Table 4.4-2. Descriptions of these species and their habitat requirements are provided in Appendix D, Table D-2. A total of 16 special-status wildlife species were observed in the biological survey area.

Sensitive Habitats

Sensitive habitats are defined here as:

1. Areas that provide habitat for locally unique biotic species/communities (e.g., oak woodlands, coastal scrub, maritime chaparral, and indigenous and ancient forests)
2. Habitat that contains or supports rare, endangered, or threatened species as defined by CDFW, USFWS, and CNPS
3. Habitat that supports CDFW-listed Species of Special Concern
4. Areas that provide habitat for rare or endangered species and that meet the definition of Section 15380 of the CEQA Guidelines
5. Coastal tidelands and marshes
6. Coastal and offshore 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

4.4 BIOLOGICAL RESOURCES

Table 4.4-2 Special-status Species with Moderate or High Potential to Occur in the Biological Survey Area

Species Name	Status	NCCP Covered Species? ¹	# Detected or Nearest Recorded Occurrence	Potential to Occur
Plants				
San Diego thorn-mint (<i>Acanthomintha ilicifolia</i>)	FT, SE, CRPR 1B.1, NE	Yes	1,019 feet west of biological survey area	Moderate Potential
California adolphia (<i>Adolphia californica</i>)	2B.1	No	11	Present
San Diego County sunflower (<i>Bahiopsis laciniata</i>) ²	CRPR 4.2	No	19,450	Present
San Diego goldenstar (<i>Bloomeria clevelandii</i>)	CRPR 1B.1	Yes	4,345 feet east of the biological survey area	Moderate Potential
Small-flowered morning-glory (<i>Convolvulus simulans</i>)	CRPR 4.2	No	178	Present
Otay tarplant (<i>Deinandra conjugens</i>)	FT, SE, CRPR 1B.1	Yes	934	Present
Variegated dudleya (<i>Dudleya variegata</i>)	1B.2	Yes	60	Present
San Diego barrel cactus (<i>Ferocactus viridescens</i>)	CRPR 2B.1	Yes	140	Present
Palmer's grappling hook (<i>Harpagonella palmeri</i>)	CRPR 4.2	Yes	1,065,000	Present
Graceful tarplant (<i>Holocarpha virgata</i> ssp. <i>elongata</i>)	CRPR 4.2	No	13,060	Present
San Diego marsh-elder (<i>Iva hayesiana</i>)	CRPR 2B.2	No	1,860	Present
Southwestern spiny rush (<i>Juncus acutus</i> ssp. <i>leopoldii</i>)	CRPR 4.2	No	130	Present
Robinson's pepper grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>)	CRPR 1B.2	No	37	Present
Munz's sage (<i>Salvia munzii</i>)	CRPR 2B.2	No	2	Present
Ashy spike-moss (<i>Selaginella cinerascens</i>)	CRPR 4.1	No	1.75 acres	Present

4.4 BIOLOGICAL RESOURCES

Species Name	Status	NCCP Covered Species? ¹	# Detected or Nearest Recorded Occurrence	Potential to Occur
Wildlife				
Invertebrates				
Quino checkerspot butterfly (<i>Euphydryas editha quino</i>)	FE	No ³	7,460 feet east of biological survey area	High Potential
Hermes copper butterfly (<i>Lycaena hermes</i>)	FC	No	6,841 feet northeast of biological survey area	High Potential
Reptiles				
Belding's orange-throated whiptail (<i>Aspidoscelis hyperythra</i>)	CSC	Yes	No data recorded for this subspecies	Moderate Potential
Northern red-diamond rattlesnake (<i>Crotalus ruber ruber</i>)	CSC	Yes	1	Observed; High Potential
San Diego ringneck snake (<i>Diadophis punctatus similis</i>)	--	Yes	1,537 feet northwest of biological survey area	Moderate Potential
Coastal rosy boa (<i>Lichanura trivirgata</i>)	--	Yes	No data recorded for this subspecies	Moderate Potential
Coronado Island skink (<i>Plestiodon skiltonianus interparietalis</i>)	CSC	Yes	6 miles east of biological survey area	Moderate Potential
Coast patch-nosed snake (<i>Salvadora hexalepis virgultea</i>)	CSC	Yes	4.3 miles southeast of biological survey area	Moderate Potential
Two-striped garter snake (<i>Thamnophis hammondi</i>)	--	Yes	141 feet east of biological survey area	Moderate Potential
Birds				
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>)	WL	Yes	20	Observed; High Potential
Cooper's hawk (<i>Accipiter cooperii</i>)	WL (nesting)	Yes	6	Observed; High Potential
Tricolored blackbird (<i>Agelaius tricolor</i>)	SE	Yes	1.7 miles north of biological survey area	Moderate Potential
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	CSC (nesting)	Yes	8	Observed; High Potential

4.4 BIOLOGICAL RESOURCES

Species Name	Status	NCCP Covered Species? ¹	# Detected or Nearest Recorded Occurrence	Potential to Occur
Bell's sage sparrow (<i>Amphispiza belli belli</i>)	WL	No	2	Observed; High Potential
Golden eagle (<i>Aquila chrysaetos canadensis</i>)	CSC	Yes	6 miles east of biological survey area	Moderate Potential
Western burrowing owl (<i>Athene cunicularia hypugaea</i>)	CSC, NE	Yes	6	Observed; High Potential
Ferruginous hawk (<i>Buteo regalis</i>)	CAC	Yes	37 miles east of biological survey area	Low Potential
Swainson's hawk (<i>Buteo swainsoni</i>)	ST (nesting)	Yes	3,000 feet northwest of biological survey area	Moderate Potential
Prairie falcon (<i>Falco mexicanus</i>)	WL	No	5 miles north of biological survey area	Moderate Potential
Northern harrier (<i>Circus cyaneus hudsonius</i>)	CSC (nesting)	Yes	6	Observed; High Potential
White-tailed kite (<i>Elanus leucurus</i>)	CFP	No	7	Observed; High Potential
California horned lark (<i>Eremophila alpestris actia</i>)	WL	No	2	Observed; High Potential
Yellow-breasted chat (<i>Icteria virens</i>)	CSC	No	6	Observed; High Potential
Coastal California gnatcatcher (<i>Polioptila californica californica</i>)	FT, CSC	Yes	67	Observed; High Potential
Yellow warbler (<i>Setophaga petechia</i>)	CSC (nesting)	No	5	Observed; High Potential
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE, SE	Yes	3	Observed; High Potential
Mammals				
Western yellow bat (<i>Lasiurus xanthinus</i>)	CSC	No	4 miles north of biological survey area	Moderate Potential
San Diego black-tailed jackrabbit (<i>Lepus californicus bennetti</i>)	CSC	Yes	10	Observed; High Potential

4.4 BIOLOGICAL RESOURCES

Species Name	Status	NCCP Covered Species? ¹	# Detected or Nearest Recorded Occurrence	Potential to Occur
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	CSC	Yes	3 miles southwest of biological survey area	Moderate Potential
Southern mule deer (<i>Odocoileus hemionus fuliginata</i>)	--	Yes	1	Observed; High Potential
American badger (<i>Taxidea taxus</i>)	CSC	Yes	550 feet north of biological survey area	Moderate Potential

Notes:

¹ NCCP Covered Species refers to species that are covered by SDG&E's Subregional NCCP

² This species is also known as *Viguiera laciniata* and San Diego County viguiera

³ QCB is covered by the SDG&E Low-Effect HCP for QCB

California Rare Plant Ranks:

1B: Plants rare, threatened, or endangered in California and elsewhere

2B: Plants rare, threatened, or endangered in California, but more common elsewhere

4: Plants of limited distribution – A Watch List

0.1– Seriously threatened in California (more than 80 percent of occurrences threatened/high degree and immediacy of threat)

0.2– Fairly threatened in California (20–80 percent occurrences threatened/moderate degree and immediacy of threat)

Federal/State Listed:

FE = Federally listed endangered

FT = Federally listed threatened

FC = Candidate for federal listing

SE = State-listed endangered

ST = State -listed threatened

Other

CFP = California Department of Fish and Wildlife Fully Protected Species

CSC = California Department of Fish and Wildlife Species of Special Concern

NE = SDG&E Narrow Endemic Species

WL = California Department of Fish and Wildlife Watch List

Source: AECOM 2013e

The following sensitive habitats were observed in the biological survey area during surveys:

- Valley needlegrass grassland
- Diegan coastal sage scrub
- Southern willow scrub
- Coastal and valley freshwater marsh
- Herbaceous wetland
- Mulefat scrub, riparian scrub
- Riparian woodland

4.4 BIOLOGICAL RESOURCES

Appendix D, Table D-3, provides descriptions of these habitats, and their locations are mapped in Appendix D, Figures D-1 through D-11.

Jurisdictional Waters and Wetlands

A formal jurisdictional delineation was performed for the proposed substation site and transmission corridor in November 2013. Areas meeting the criteria for state jurisdiction were also evaluated and mapped. The acreage of potentially jurisdictional water features occurring in the proposed substation site and transmission corridor are listed in Table 4.4-3. No waters or potential waters were delineated within the staging yards or Miguel Substation during the initial reconnaissance survey. The waters delineation did not include the 500-foot buffer area.

Critical Habitat

Critical habitat under the ESA consists of: (1) specific areas within the geographic area occupied by the species at the time of listing, on which are found those physical or biological features that are essential to the conservation of the listed species and that may require special management considerations or protection, and (2) specific areas outside the geographic area occupied by the

Table 4.4-3 Potentially Jurisdictional Waters in the Proposed Substation Site and Transmission Corridor

Type of Jurisdictional Waters	Land Cover Type	Proposed Substation (Acres)	TL 6965 Transmission Corridor (Acres)	Total Acres
Jurisdictional Waters of the U.S. and State				
Wetland	Coastal and Valley Freshwater Marsh	-	0.051	0.051
Wetland	Herbaceous Wetland	-	0.162	0.162
Wetland	Riparian Woodland	-	0.229	0.229
Wetland	Mulefat Scrub	-	0.224	0.224
Wetland	Southern Willow Scrub	-	0.014	0.014
Other Waters	Concrete Brow Ditch	-	0.003	0.003
Other Waters	Unvegetated Channel	-	0.134	0.134
<i>Subtotal</i>		<i>0.000</i>	<i>0.817</i>	<i>0.817</i>
Jurisdictional Waters of the State				
Wetland	Riparian Scrub	-	0.142	0.142
<i>Subtotal</i>		<i>0.000</i>	<i>0.142</i>	<i>0.142</i>
Total Jurisdictional Waters		0.000	0.959	0.959
Non-Jurisdictional Waters				
Other Waters	Concrete Brow Ditch	0.127	0.131	0.257
Total Non-jurisdictional Waters		0.127	0.131	0.257

Source: AECOM 2013f

4.4 BIOLOGICAL RESOURCES

species at the time of listing that are essential for the conservation of a listed species (NOAA 2005). Critical habitat areas were identified by review of USFWS maps of critical habitat for federally listed species that could occur within the project biological survey area (Figure 4.4-2).

Quino Checkerspot Butterfly

No critical habitat for QCB occurs within the biological survey area. The nearest designated critical habitat for QCB occurs along the eastern perimeter of Otay Lake, approximately 1.1 miles southeast of the southern terminus of the transmission corridor.

Spreading Navarretia

No critical habitat for spreading navarretia occurs within the biological survey area. The nearest designated critical habitat for spreading navarretia occurs northwest of the existing substation along the southeast perimeter of the Sweetwater Reservoir, approximately 0.5 miles northwest of the transmission line northern terminus in the existing Miguel Substation.

Least Bell's Vireo

No critical habitat for least bell's vireo occurs within the biological survey area. The nearest designated vireo critical habitat occurs northeast of Sweetwater Reservoir, approximately 1.7 miles northeast of the northern terminus of the transmission corridor. Designated critical habitat for least bell's vireo also occurs east of Otay Lake, approximately 2.5 miles east of the southern terminus of the transmission corridor.

Otay Tarplant

Critical habitat for the endangered Otay tarplant was identified within the biological survey area at the southern terminus of the transmission corridor, near the proposed substation site (Figure 4.4-2). A total of 13.46 acres of critical habitat occurs within the 500-foot buffer of the transmission corridor at its southern terminus. Critical habitat also occurs just outside of the 500-foot buffer at the northern terminus of the transmission corridor and the existing Miguel Substation staging yard.

Coastal California Gnatcatcher

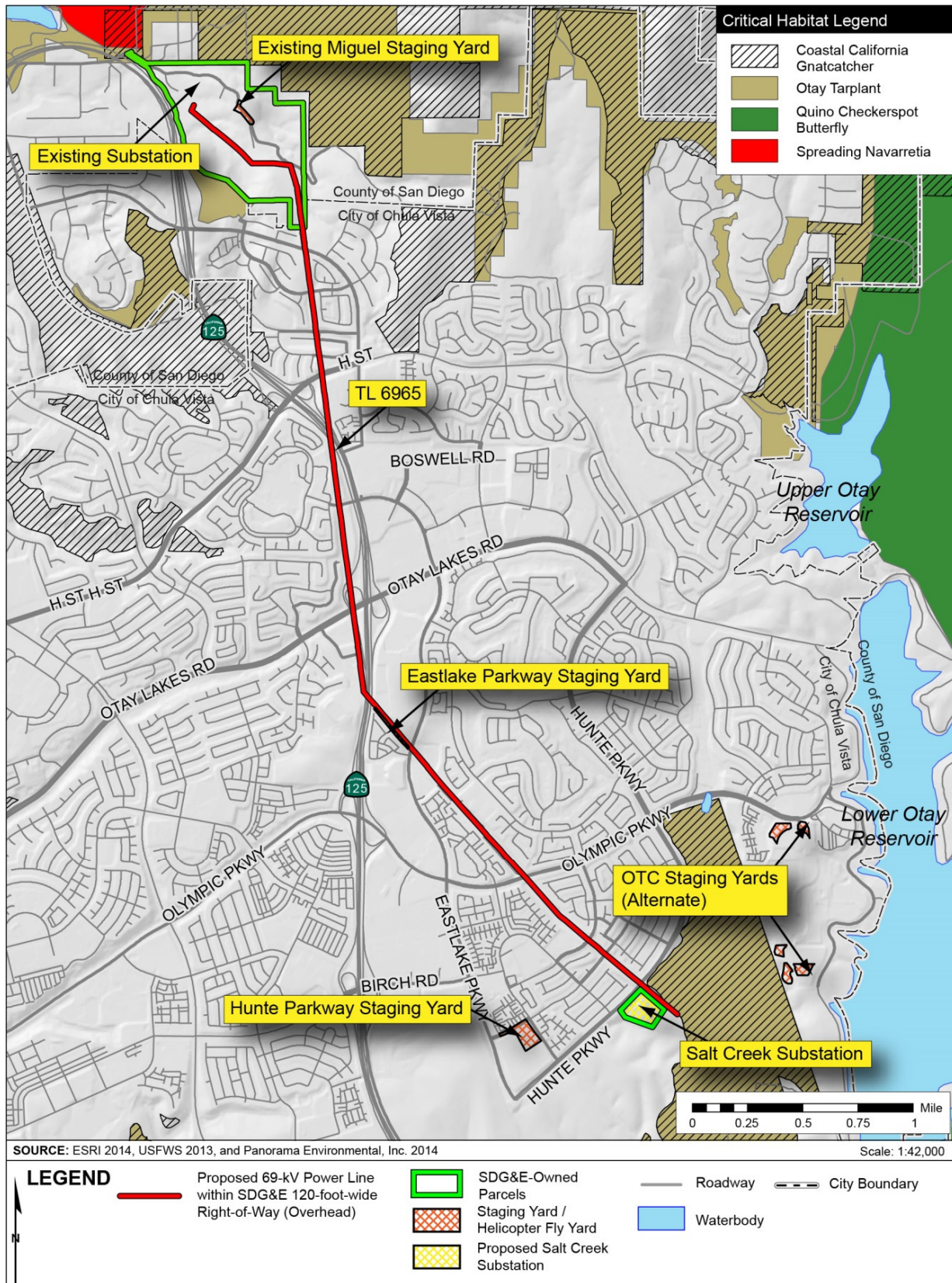
Critical habitat for coastal California gnatcatcher occurs just east and north of the northern end of the transmission corridor, but does not coincide with the biological survey area (Figure 4.4-2).

Preserve Areas

Preserves have been established in the area to protect habitat for various species. Preserve areas have been designated in plans such as the City of Chula Vista MSCP Subarea Plan and County of San Diego MSCP Subarea Plan. Preserve areas within the project region are shown on Figure 4.4-3. The Miguel Substation at the northern terminus of the project area is mapped as San Diego County MSCP Preserve. In addition, portions of the San Diego County MSCP Preserve and the City of Chula Vista MSCP Subarea Preserves surround much of the Miguel Substation. To the south, a City of Chula Vista MSCP Subarea Preserve lies immediately adjacent to and east of the proposed substation site. SDG&E's NCCP is implemented independently of the Preserve areas established in the City of Chula Vista and County of San Diego MSCPs.

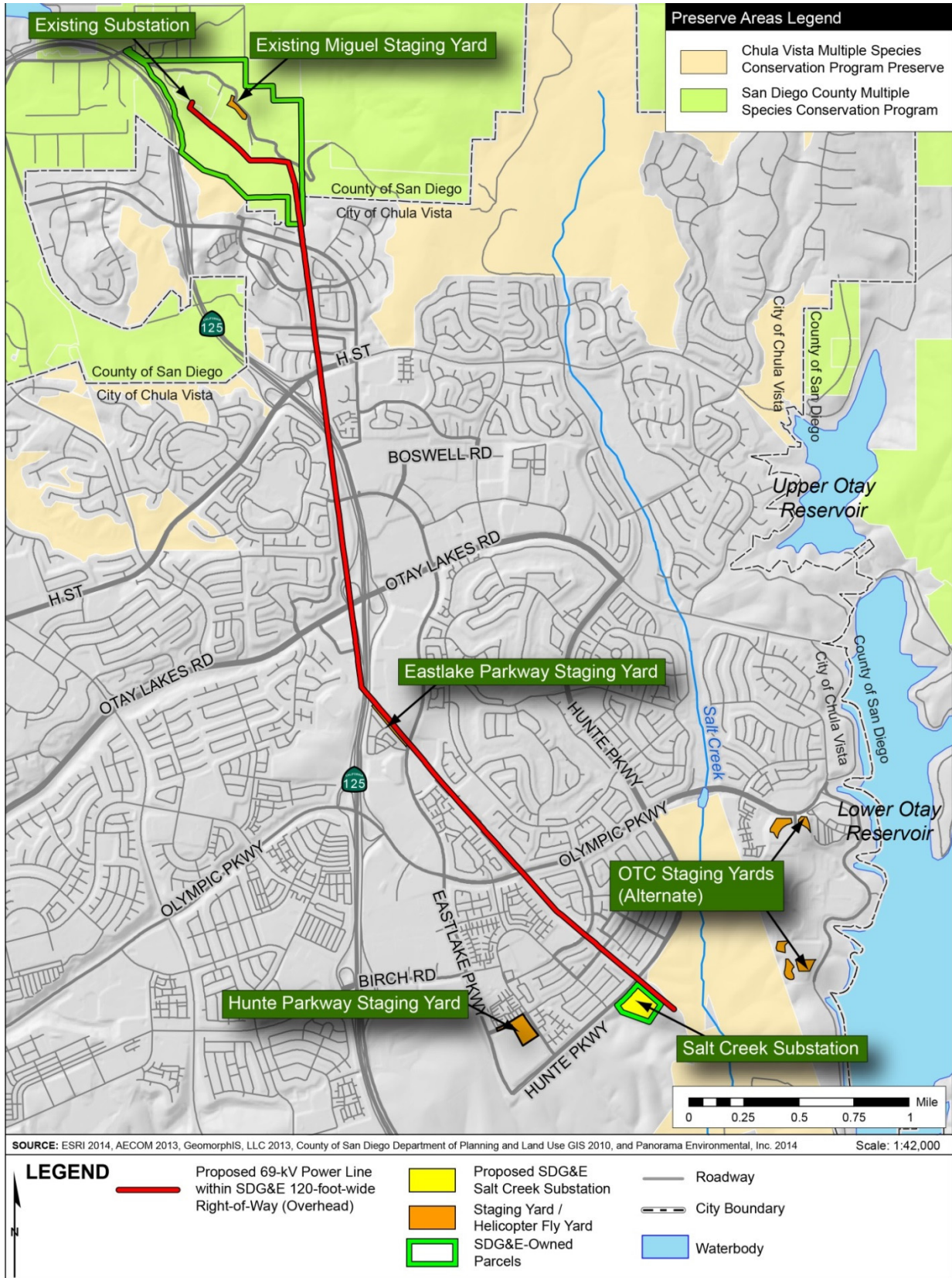
4.4 BIOLOGICAL RESOURCES

Figure 4.4-2 Critical Habitat Located in the Project Vicinity



4.4 BIOLOGICAL RESOURCES

Figure 4.4-3 Preserves Located in the Project Vicinity



4.4 BIOLOGICAL RESOURCES

Wildlife Corridors

Wildlife corridors are typically linear landscape features that connect suitable habitat in regions otherwise fragmented by rugged terrain, changes in vegetation, or human development.

Wildlife migration or movement corridors are important because they provide access to mates, food, and water. In addition, corridors (that can include canyon drainages, ridgelines, and areas with vegetative cover) also allow the dispersal of wildlife away from high-population areas and facilitate genetic diversity among populations. Wildlife corridors are considered sensitive by resource and conservation agencies.

The proposed substation site is not a linear feature that could potentially serve as a wildlife migration corridor, and the site does not coincide with a known migration corridor. The proposed substation site lies adjacent to Hunte Parkway and is flanked to the north by urban development, both of which can introduce stressors to wildlife. The proposed substation site does not represent an important regional or local migration corridor for wildlife movement or coincide with such a corridor.

The transmission corridor is a linear feature with vegetation communities that support wildlife species. The transmission corridor runs from open space at Mount San Miguel, located north of Miguel Substation, to the Otay Ranch Preserve located south and east of the proposed substation; however, the transmission corridor is bordered by dense development on either side and is intersected by five four-lane roadways and SR-125, which carry high traffic volumes. Habitat within the transmission corridor has been disturbed by several utility projects including two existing 230-kV transmission lines, a 69-kV power line, two high-pressure gas lines, and utility access roads and trails. These factors likely deter most wildlife species from using the approximately 120-foot wide strip of fragmented vegetation present within the transmission corridor. The transmission corridor does not represent an important regional or local migration corridor for wildlife movement.

4.4.2 Regulatory Setting

Federal

Clean Water Act

The intent of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the United States including streams and wetlands (33 CFR 328.3). Waters of the U.S. are classified as Wetlands, Navigable Water, or Other Waters and include marine waters, tidal areas, stream channels, and associated wetlands. Under federal regulations, wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3(b)).

Policies regulating the loss of wetlands generally stress the need to compensate for wetland acreage losses by creating wetlands from non-wetland habitat on at least an acre-for-acre basis.

4.4 BIOLOGICAL RESOURCES

Projects that cause the discharge of dredged or fill materials in waters of the U.S. require permitting by USACE.

Endangered Species Act

The federal ESA provides protection for plants and animals listed by the USFWS and the National Marine Fisheries Service (NMFS) as threatened or endangered. Section 9 of the ESA (16 USC § 1538) prohibits the take, possession, sale, or transport of any ESA-listed species. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, capture, collect, or attempt to engage in any such conduct” (16 U.S. Code [USC] Sections 1532(19), 1538). Take may also include modification of a species’ habitat. For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land, and removing, cutting, digging up, damaging, or destroying any listed plant on land under federal jurisdictions, and on non-federal land in knowing violation of state law (16 USC Section 1538(a)(2)).

The ESA requires the federal government to designate critical habitat for any species listed under the ESA, but also allows areas to be excluded from critical habitat (16 USC Section 1533(b)(2)). Critical habitat is a specific area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may also include specific areas outside the geographic area occupied by the species if the agency determines that the area itself is essential for conservation.

Section 7 of the ESA requires federal agencies to conduct consultation with USFWS and/or NMFS for any federal activity that may affect any federally listed species or its critical habitat. Informal consultation may precede, and obviate the need for formal consultation if USFWS and/or NMFS concur that the proposed agency action is not likely to adversely affect listed species. In the formal consultation process, USFWS and/or NMFS must issue a Biological Opinion regarding the potential for effect to listed species. USFWS and/or NMFS may issue an incidental take permit, allowing take of the species that is incidental to an otherwise authorized activity provided that the action will not jeopardize the continued existence of the species.

Section 10 of the ESA provides for issuance of incidental take permits for private actions that have no federal involvement through the development of a HCP. Effects to federally listed species with no lead federal agency require preparation of a HCP, management agreement, and an analysis prepared in compliance with the National Environmental Policy Act (NEPA).

SDG&E is implementing a Subregional NCCP (also serves as a HCP), which covers various plants and wildlife species and sensitive habitats, and a low-effect HCP specifically for QCB. These HCPs are discussed further below.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) provides protection for migratory birds. Conditions for permits to “take” migratory birds (as defined in the MBTA) are set forth in 50 CFR Part 13 [General Permit Procedures] and 50 CFR Part 21 [Migratory Bird Permits]). Activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the

4.4 BIOLOGICAL RESOURCES

regulations, or by permit are prohibited. The MBTA allows USFWS to issue permits to qualified applicants for the following types of activities:

- Falconry
- Raptor propagation
- Scientific collecting
- Special purposes (rehabilitation, education, migratory game bird propagation, and salvage)
- Take of predatory birds, taxidermy, and waterfowl sale and disposal

This protection extends to all migratory birds, parts, nests, and eggs. The full list of species protected under this act is found in 50 CFR 10.13.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC Section 668-668d) provides protection for bald and golden eagles. This protection extends to eagles, nests, and their eggs. It prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald or golden eagles, including their parts, nests, or eggs. The Act also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

State

California Endangered Species Act

The CESA provides legal protection for plants or wildlife species listed as threatened or endangered. The CESA prohibits the take of endangered and threatened species; however, California case law has not interpreted habitat destruction, alone, as included in the state’s definition of take. Under CESA, take is defined as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (California Fish and Game Code §86). CDFW administers the CESA and authorizes take through Section 2081 agreements, Section 2080.1 consistency determinations (for species that are also listed under the federal Endangered Species Act), or NCCPs. SDG&E has a Subregional NCCP that is discussed further below.

Native Plant Protection Act

The Native Plant Protection Act of 1977 prohibits importing of rare and endangered plants into California, taking of rare and endangered plants, and selling of rare and endangered plants. Beginning January 1, 2015, the Native Plant Protection Act (NPPA) allows CDFW to permit the take of state-listed rare plants using the same procedures and under the same conditions as incidental take permits, voluntary local programs, NCCPs, safe harbor agreements, and scientific/educational/management permits. Removal of rare plants by publicly or privately owned public utilities may occur in compliance with certain provisions of the NPPA (Fish and Game Code §1913, 14 CCR §786.9(d)).

4.4 BIOLOGICAL RESOURCES

California Fish and Game Code

The California Fish and Game Code includes regulations to protect:

- Wetland and riparian habitats – requires a streambed and/or lake alteration agreement for activities that impact these habitats
- Raptor protection – prohibits killing or raptor species and destruction of raptor nests
- Furbearing mammals – regulates trapping and hunting
- Fully protected species – designates certain species as “fully protected” and regulates take of these species
- Protection for birds – makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird; it is also unlawful to take possess or destroy birds of prey or their nests or eggs

Porter-Cologne Water Quality Control Act and Clean Water Act Section 401

SWRCB administers the Porter-Cologne Water Quality Control Act and Section 401 of the CWA, typically through its Regional Water Quality Control Boards (RWQCBs). The Porter-Cologne Water Quality Control Act, Water Code Section 13260, requires that, “any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state” to file a report of discharge with the RWQCB. Waters of the State are defined in the Porter-Cologne Act (Water Code Section 13050 (e)) as “any surface water or groundwater, including saline waters, within the boundaries of the state.”

Local

City of Chula Vista General Plan

The overarching objective of the City’s General Plan Environmental Element is to “conserve Chula Vista’s sensitive biological resources” by implementing the City’s MSCP Subarea Plan (City of Chula Vista 2003). The MSCP Subarea Plan was adopted by the City as a component of the General Plan in May 2003 and is discussed below.

SDG&E Subregional Natural Community Conservation Plan

The SDG&E Subregional NCCP was approved in December 1995 and was established according to the federal ESA, the CESA, and the NCCP Act. The NNCP authorizes certain levels of take of 110 covered species that may be affected by SDG&E’s ongoing activity impacts including installation, use, maintenance, and repair operations and expansion of its systems. SDG&E implements the NCCP’s “operational protocols” in conducting covered activities within the plan area; compliance with the NCCP supports the authorized take of species covered under the NCCP. The NCCP operational protocols include various protection, mitigation, and conservation measures to ensure the survivability and conservation of protected species and their habitat. The operational protocols provided in SDG&E’s NCCP include provisions for personnel training, pre-activity studies; and for maintenance, repair, and construction of facilities including access roads, survey work, and emergency repairs. Under the NCCP, compensatory mitigation for take impacts may be mitigated through a conservation bank or through habitat enhancement measures.

4.4 BIOLOGICAL RESOURCES

The project area is located within areas included in the Chula Vista MSCP Subarea Plan. SDG&E's public utility activities, such as the proposed project, are not subject to the regulatory jurisdiction of local governments and are therefore not governed by the terms and conditions of the City of Chula Vista MSCP Subarea Plan. However, in implementing its NCCP, SDG&E may coordinate with the City and other jurisdictions to achieve consistency with the local MSCP mitigation to the extent feasible.

The proposed project is located within the area where SDG&E's utility operations are currently covered by the NCCP. Take projected to occur as a result of SDG&E's covered activities within the NCCP area is nearing the level initially authorized under the NCCP. Take authorization for all of SDG&E's activities associated with proposed project, including maintenance activities, may not be available through the current NCCP. However, SDG&E may apply to amend the NCCP to add new area; cover additional species, subspecies, or populations; or amend the take authorization levels. The process to amend the plan will be conducted over a minimum of one year. The amended NCCP could be in place by as early as late summer 2016, or later (Hollenbeck 2015).

SDG&E Low-Effect Habitat Conservation Plan for the Quino Checkerspot Butterfly

The SDG&E's HCP for QCB, which authorizes incidental take of federally endangered QCB, was approved in May 2007. The HCP authorizes loss of 33 acres of QCB habitat and requires SDG&E to implement general and QCB-specific operational protocols to avoid or minimize take of QCB. SDG&E's HCP for QCB relies on the 1995 Subregional NCCP and states that should the 1995 Subregional NCCP become ineffective (i.e., is no longer being implemented), the protocols therein will still be implemented whenever a covered activity takes place in QCB habitat. To mitigate impacts to QCB, SDG&E must implement one of the following measures included in the HCP:

1. Pay into a QCB habitat fund that will be used to benefit QCB through acquisition, restoration, or enhancement of QCB habitat;
2. Enhance an unallocated portion of SDG&E's existing mitigation parcel for the benefit of QCB;
3. Purchase credits from a to-be-established QCB bank, should one be approved by USFWS in the future; or
4. Acquire a mitigation parcel that supports or could support QCB (Ebbin, Moser and Skaggs, LLP 2007).

Otay Ranch Resource Management Plan

The proposed substation is located within Otay Ranch, an approximately 22,899-acre planned community in the eastern portion of the City of Chula Vista. The Otay Ranch Resource Management Plan (RMP) was developed prior to the City of Chula Vista's MSCP Subarea Plan. The purpose of the RMP is to provide mitigation for development projects occurring in Otay Ranch by requiring conveyance/purchase of 1.188 acres of land for every 1 acre of developable land to assemble the Otay Ranch Preserve (City of Chula Vista 1993; City of Chula Vista 2002). The RMP is intended to be the functional equivalent of the County of San Diego Resource Protection Ordinance for Otay Ranch.

4.4 BIOLOGICAL RESOURCES

4.4.3 Applicant Proposed Measures

SDG&E proposes to implement measures that would reduce environmental impacts. The following relevant APMs are considered part of the proposed project (Table 4.4-4). The significance of the impact, however, is first considered prior to application of the APM and a significance determination is made. The implementation of the APM is then considered as part of the project when determining whether impacts would be significant and thus would require mitigation. These APMs would be incorporated as part of any CPUC approval of the project, and SDG&E would be required to adhere to the APMs as well as any identified mitigation measures. The APMs are included in the MMRP for the proposed project (refer to Section 9: Mitigation Monitoring and Reporting Plan of this Draft EIR), and the implementation of the measures would be monitored and documented in the same manner as mitigation measures. These APMs are in addition to the operational protocols outlined in SDG&E's NCCP (Appendix D).

SDG&E would comply with the requirements of the SDG&E Subregional NCCP and the low-effect HCP for QCB (Appendix D) and any other permits for biological resources. Compliance includes following the guidelines outlined in Section 7.1, Operational Protocols, and Section 7.2, Habitat Enhancement Measures, of the SDG&E Subregional NCCP (Appendix D).

SDG&E's habitat take is nearing the level initially authorized under SDG&E's NCCP. Take authorization for all of SDG&E's activities associated with the proposed project, including maintenance activities, may not be available through the current NCCP. The NCCP may be amended to add new area, cover additional species, subspecies or populations, or to amend the take authorization levels. SDG&E must maintain valid take authorization throughout the duration of construction for all state and/or federally listed threatened or endangered species documented in the project area (i.e., Coastal California gnatcatcher and least bell's vireo). If the NCCP is amended at any time prior to the completion of construction, SDG&E would submit a copy of the amended NCCP to CPUC upon signing of the implementing agreement, and SDG&E would follow the protocols in the amended NCCP. The CPUC shall have sole discretion to determine whether compliance with the amended NCCP will also satisfy the performance standards or requirements identified in mitigation measures in this EIR.

Table 4.4-4 Applicant Proposed Measures for Biological Impacts

APM Number	Requirements
APM BIO-1: Burrowing Owl	SDG&E will coordinate with CDFW to implement the avoidance and minimization measures, as needed and as appropriate, to avoid impacts to western burrowing owl. If western burrowing owl occupancy on site is confirmed during pre-construction take avoidance surveys, SDG&E will implement the CDFW-approved "Burrowing Owl Monitoring and Mitigation Plan" in coordination with CDFW.
APM BIO-2: SDG&E Subregional Natural Communities Conservation Plan	The Proposed Project will avoid and minimize impacts to biological resources through implementation of the SDG&E Subregional NCCP, which is a comprehensive conservation-based approach that provides more effective species protection than project-by-project conservation planning would achieve. The SDG&E Subregional NCCP establishes a mechanism for addressing biological resource impacts incidental to the development, maintenance, and repair of SDG&E facilities within the SDG&E Subregional NCCP coverage area. The Proposed

4.4 BIOLOGICAL RESOURCES

APM Number	Requirements
	<p>Project is located within the SDG&E Subregional NCCP coverage area.</p> <p>The SDG&E Subregional NCCP includes a Federal ESA Section 10(A) permit and a California ESA Section 2081 Memorandum of Understanding (for incidental take) with an Implementation Agreement with USFWS and CDFW, respectively, for the management and conservation of multiple species and their associated habitats, as established according to the federal and state ESAs and California's NCCP Act. The NCCP's Implementing Agreement confirms that the mitigation, compensation, and enhancement obligations contained in the Agreement and SDG&E Subregional NCCP meet all relevant standards and requirements of the California ESA, the federal ESA, the NCCP Act, and the Native Plant Protection Act with regard to SDG&E's activities in the Subregional NCCP Plan Area.</p> <p>Pursuant to the SDG&E Subregional NCCP, SDG&E conducted pre-construction studies for all activities occurring off of existing access roads in natural areas. An independent biological consulting firm surveyed all Proposed Project impact areas and prepared a Pre-Activity Study Report (PSR) outlining all anticipated impacts related to the Proposed Project. The Proposed Project will include monitoring, as recommended by the PSR and outlined in the SDG&E Subregional NCCP, as well as other avoidance and minimization measures outlined in the NCCP's Operational Protocols. Prior to the commencement of construction, a verification survey of the Proposed Project disturbance areas will be conducted, as required by the SDG&E Subregional NCCP.</p> <p>Biological monitors will be present as needed during construction to ensure implementation of the avoidance and minimization measures set forth in the NCCP. If the previously delineated work areas must be expanded or modified during construction, the monitors will survey the additional impact area to determine if any sensitive resources will be impacted by the proposed activities, to identify avoidance and minimization measures, and to document any additional impacts. Any additional impacts would be included in a Post-Construction Report (PCR) to calculate the appropriate mitigation, which generally includes site enhancement or credit withdrawal from SDG&E mitigation bank credits.</p> <p>Alternatively, SDG&E may utilize the 11.0959 acres of purchased conveyance land credits in the Otay Ranch Preserve in lieu of drawing down additional credits from SDG&E's NCCP credits. When construction is complete, the biological monitor will conduct a survey of the entire Proposed Project area to determine actual impacts from construction. The PCR will determine how much site enhancement and credit withdrawal from the SDG&E mitigation bank would be required to address impacts from activities related to the Proposed Project. These impact and mitigation credit calculations will be submitted to USFWS and CDFW as part of the NCCP Annual Report, pursuant to requirements of the NCCP and the NCCP Implementing Agreement.</p> <p>Specific operating restrictions that are incorporated into the Proposed Project to comply with the SDG&E Subregional NCCP include the following:</p> <ul style="list-style-type: none">• Vehicles will be kept on access roads and limited to 15 miles per hour (Section 7.1.1, 1).• No wildlife, including rattlesnakes, may be harmed, except to protect life and limb (7.1.1, 2).• Feeding of wildlife is not allowed (Section 7.1.1, 4).• No pets are allowed within the ROW (Section 7.1.1, 5).• Plant or wildlife species may not be collected for pets or any other reason. (Section 7.1.1, 7).• Littering is not allowed, and no food or waste will be left on the ROW or adjacent properties (Section 7.1.1, 8).• Measures to prevent or minimize wild fires will be implemented, including exercising care when driving and not parking vehicles where catalytic

4.4 BIOLOGICAL RESOURCES

APM Number	Requirements
	<p>converters can ignite dry vegetation (Section 7.1.1, 9.).</p> <ul style="list-style-type: none"> • Field crews shall refer all environmental issues, including wildlife relocation, dead, or sick wildlife, or questions regarding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may be necessary to assist with wildlife relocations (Section 7.1.1, 10.). • All SDG&E personnel will participate in an environmental training program conducted by SDG&E, with annual updates (Section 7.1.2, 11.). • The Environmental Surveyor shall conduct preactivity studies for all activities occurring in natural areas, and will complete a preactivity study form including recommendations for review by a biologist and construction monitoring, if appropriate. The form will be provided to CDFW and USFWS but does not require their approval (Section 7.1.3, 13.). • The Environmental Surveyor shall flag boundaries of habitats to be avoided and, if necessary, the construction work boundaries (Section 7.1.3, 14.). • The Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable (Section 7.1.4, 25.). • In the event SDG&E identifies a covered species (listed as threatened or endangered by the federal or state) of plant within the temporary work area (10 foot radius) surrounding a power pole, SDG&E would notify the USFWS (for Federal ESA listed plants) and CDFW (for California ESA listed plants) (Section 7.1.4, 28.). • The Environmental Surveyor shall conduct monitoring as recommended in the preactivity study form (Section 7.1.4, 35.). • Supplies, equipment, or construction excavations where wildlife could hide (e.g., pipes, culverts, pole holes, trenches) shall be inspected prior to moving or working on/in them (Section 7.1.4, 37, and 38.). • Fugitive dust will be controlled by regular watering and speed limits (Section 7.1.4, 39.). • During the nesting season, the presence or absence of nesting species (including raptors) shall be determined by a biologist who would recommend appropriate avoidance and minimization measures (Section 7.1.6, 50). • Maintenance or construction vehicle access through willow creeks or streams is allowed. However no filling for access purposes in waterways is allowed (Section 7.1.7, 52). • Staging/storage areas for equipment and materials shall be located outside of riparian areas (Section 7.1.7, 53.).
APM BIO-3: Cover Excavations	SDG&E will inspect and cover all excavated pole holes at the end of each day and when not in use, using suitable materials to prevent human and animal entrapment (e.g., plywood boards, plastic covering, gravel, and/or sand bags).
APM BIO-4: Restoring Temporarily Disturbed Areas	SDG&E will restore all areas that are temporarily disturbed by project activities (e.g., stringing sites, structure removal sites, and staging areas) to approximate preconstruction conditions following completion of construction, as needed and appropriate. Disturbed areas will be revegetated where appropriate (to re-establish a natural-appearing landscape and reduce potential visual contrast with the surrounding landscape). Revegetation in certain areas will not be possible due to vegetation management requirements related to fire safety. Restoration could include reseeding, planting replacement vegetation, or replacement of structures (such as fences), as appropriate. In addition, all construction materials and debris will be removed from the project area and recycled or properly disposed of off-site. SDG&E will conduct a final survey after restoration to ensure that clean-up activities are successfully completed as required.

4.4 BIOLOGICAL RESOURCES

4.4.4 Significance Criteria

Appendix G of CEQA Guidelines (14 CCR 15000 *et seq.*) provides guidance on assessing whether a project will have significant impacts on the environment. Consistent with Appendix G, the proposed project would have significant impacts on biological resources if it would:

- 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, or that meet the criteria for endangered, rare or threatened under CEQA Guidelines Section 15380;
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- c. Have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, and coastal areas) or any state-protected jurisdictional areas not subject to regulation under Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means;
- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy, or ordinance; or
- f. Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan.

4.4.5 Environmental Impacts and Mitigation Measures

Approach to Impact Assessment

This section provides an analysis of proposed project impacts on the biological resources in the project area. The impact analysis focuses on reasonably foreseeable effects of the proposed project as compared with baseline conditions. This analysis includes an evaluation of the potential direct and indirect effects of the proposed project; cumulative effects are addressed in Section 5: Cumulative Impacts. These impact categories are defined as follows:

- **Direct:** Direct impacts are caused by the project and occur at the same time and place as the project. Any alteration, disturbance, or destruction of environmental resources that would result from project-related activities is considered a direct impact.
- **Indirect:** As a result of project-related activities, environmental resources may also be affected in a manner that is not direct. Indirect impacts may occur later in time or at a place that is farther removed in distance from the project than direct impacts, but indirect impacts are still reasonably foreseeable and attributable to project-related activities.

4.4 BIOLOGICAL RESOURCES

- **Permanent:** All impacts that result in the irreversible removal of environmental resources or cause impacts that endure beyond 2 years are considered permanent.
- **Temporary:** Any impacts considered to have reversible effects on environmental resources, where the impact is 2 years or less in duration, are considered temporary.

These potential effects include construction-related disturbance to wetlands, disturbance of natural habitats, and impacts to special-status plant and wildlife species and their habitat. The analysis also addresses effects that would result from operation and maintenance of the proposed project. Mitigation measures were developed to reduce or avoid significant impacts. Compensatory mitigation is identified in the Subregional NCCP and low-effect QCB HCP for significant impacts that cannot be avoided.

Summary of Impacts to Special-Status Plants and Wildlife

Special-Status Plants

Special-status plants that would be affected by the project are shown in Table 4.4-5. The Miguel Substation modifications would not result in impacts to special-status plant species due to the disturbed nature of the existing substation yard. No special-status plant species were observed or have potential to occur within the staging yards. The staging yards contain unvegetated and/or disturbed habitat. Therefore, no direct impacts on special-status plant species would occur from staging yard use.

Table 4.4-5 Special-status Plants Located in the Project Area

Species	Status	Individuals in Project Work Area		NCCP Covered Species?	Estimated Individuals Affected
		Proposed Substation	TL 6965		
San Diego County sunflower ¹	CRPR 4.2	100	1 population ¹	No	100 ²
San Diego barrel cactus	CRPR 2.1	1	--	Yes	1
Palmer's grappling hook	CRPR 4.2	1,065,000 (2 acres)	--	Yes	1,065,000

Note:

¹ This species is also known as *Viguiera laciniata* and San Diego County viguiera.

² There is a population of San Diego County sunflower located in the 7,662-square-foot work area for pole 30. The number of individuals in the population was not counted or estimated.

Source: AECOM 2012c

4.4 BIOLOGICAL RESOURCES

Special-Status Wildlife and Habitat

Impacts to special-status wildlife species and habitat are summarized by project component in Table 4.4-6. Special-status wildlife species that could be affected by the project are shown in Table 4.4-7. The number of individuals detected includes a summary of all individuals recorded during species surveys within the proposed work area and buffer for each project element.

Table 4.4-6 Summary of Direct and Indirect Impacts to Wildlife Species and Habitat by Project Component

Project Element	Direct Effects		Indirect Effects	
	Species	Habitat	Species	Habitat
Construction				
Proposed Substation	Mortality Injury	8.21 acres of permanent impacts 1.36 acres of temporary impacts	Construction noise Air emissions	Introduction of invasive plants Dust Sedimentation Erosion Wildfire
TL 6965	Mortality Injury	1.98 acres of permanent impacts 2.98 acres of temporary impacts	Construction noise Air emissions	Introduction of invasive plants Dust Sedimentation Erosion Wildfire
Miguel Substation	None – No special-status species	None – No habitat for special-status species	None – previously disturbed area	None – previously disturbed area
Staging Yards	None – No special-status species	None – No habitat for special-status species	Construction noise Air emissions	None – previously disturbed area
Operation and Maintenance				
Proposed Substation	None – No special-status species after constructed	None – No habitat will remain within the substation footprint after the project is constructed	Lighting	None – disturbed substation area
TL 6965	Mortality Injury	Potential impacts to suitable habitat and restored habitats from maintenance activities	Construction noise Air emissions	Introduction of invasive plants Dust Sedimentation Erosion
Miguel Substation	None – No special-status species	None – No habitat for special-status species	None – previously disturbed area	None – previously disturbed area

4.4 BIOLOGICAL RESOURCES

Table 4.4-7 Special-status Wildlife Located in the Project Area and Potential for Effect

Species	Status	Number of Individuals in Project and Buffer Area or Potential to Occur ¹			NCCP Covered Species?
		Proposed Substation	TL 6965 Transmission Corridor	Miguel Substation/ Staging Yards	
Invertebrates					
Quino checkerspot butterfly	FE	High Potential	High Potential	High Potential	No
Hermes copper butterfly	CSC	Low Potential	High Potential	Low Potential	No
Reptiles					
Belding's orange-throated whiptail	CSC	Moderate Potential	Moderate Potential	Low Potential	Yes
Northern red-diamond rattlesnake	CSC	High Potential	1 Individual	Low Potential	Yes
San Diego ringneck snake	NCCP	Moderate Potential	Moderate Potential	Low Potential	Yes
Coastal rosy boa	NCCP	Moderate Potential	Moderate Potential	Low Potential	Yes
Coronado Island skink	CSC	Moderate Potential	Moderate Potential	Low Potential	Yes
Coast patch-nosed snake	CSC	Moderate Potential	Moderate Potential	Low Potential	Yes
Two striped garter snake	CSC	Moderate Potential	Moderate Potential	Low Potential	Yes
Birds					
Southern California rufous-crowned sparrow	WL	20 detected	High Potential	High Potential	Yes
Cooper's hawk	WL	2 detected	4 detected	High Potential	Yes
Tricolored blackbird	SE	Moderate Potential	Moderate Potential	Moderate Potential	Yes
Grasshopper sparrow	CSC	8 detected	High Potential	High Potential	Yes
Bell's sage sparrow	WL	Moderate Potential	Moderate Potential	2 detected	No
Golden eagle	CSC	Moderate Potential	Moderate Potential	Moderate Potential	Yes ²
Ferruginous hawk	CSC	Low Potential	Low Potential	Low Potential	Yes
Swainson's hawk	ST	Moderate Potential	Moderate Potential	Moderate Potential	Yes
Prairie falcon	WL	Moderate Potential	Moderate Potential	Moderate Potential	No
Northern harrier	CSC	6 detected	High Potential	High Potential	Yes

4.4 BIOLOGICAL RESOURCES

Species	Status	Number of Individuals in Project and Buffer Area or Potential to Occur ¹			NCCP Covered Species?
		Proposed Substation	TL 6965 Transmission Corridor	Miguel Substation/ Staging Yards	
White-tailed kite	CFP	1 detected	6 detected	High Potential	No
California horned lark	WL	High Potential	High Potential	2 detected	No
Yellow-breasted chat	CSC	3 detected	High Potential	High Potential	No
Coastal California gnatcatcher	FT, CSC	21 detected	11 detected	2 detected	Yes
Yellow warbler	CSC	5 detected	High Potential	High Potential	No
Least Bell's vireo	FE, SE	High Potential	High Potential	Moderate Potential	Yes
Mammals					
Western yellow bat	CSC	Moderate Potential	Moderate Potential	Moderate Potential	No
San Diego black-tailed jackrabbit	CSC	5 detected	2 detected	High Potential	Yes
San Diego desert woodrat	CSC	Moderate Potential	Moderate Potential	Moderate Potential	No
Southern mule deer	NCCP	High Potential	High Potential	1 detected	Yes
American badger	CSC	Moderate Potential	Moderate Potential	Moderate Potential	Yes

Note:

¹ Special-status wildlife species detected during surveys outside of the 500-foot buffer are not included in the count of species detected.

² USFWS has indicated that the NCCP covers impacts to golden eagle habitat but does not cover take under the BGEPA.

Federal/State Listed:

FE = Federally listed endangered
 FT = Federally listed threatened
 FC = Candidate for federal listing
 SE = State-listed endangered
 ST = State -listed threatened

Other:

CFP = California Department of Fish and Wildlife Fully Protected Species
 CSC = California Department of Fish and Wildlife Species of Special Concern
 NE = SDG&E Narrow Endemic Species
 WL = California Department of Fish and Wildlife Watch List

Source: AECOM 2013e

4.4 BIOLOGICAL RESOURCES

The Miguel Substation modifications would not result in impacts to special-status wildlife species due to the disturbed nature of the existing substation yard.

Vegetation removal, grading, and excavation would directly impact special-status wildlife species and suitable habitat located within the proposed substation area. These activities would result in habitat loss and mortality or injury to species located at the proposed substation site. Special-status wildlife species could be impacted by operation and maintenance activities including inspections, substation lighting, and equipment maintenance. Inspections would occur at the same frequency as inspections for the existing power lines in the utility corridor. Inspections and maintenance of the proposed substation would be contained within the walled and graveled substation pad. Inspection and maintenance activities at the proposed substation would not impact special-status species. Maintenance would occur on an as needed basis and could directly or indirectly impact wildlife species located near the work areas through equipment noise and exhaust.

Project impacts on vegetation communities that provide suitable habitat for wildlife are summarized in Table 4.4-8. Miguel Substation is not included in Table 4.4-8 because there is no vegetation within the substation yard. Special-status wildlife species and suitable habitat located in the transmission corridor would be directly impacted by vegetation removal, grading, drilling, and vehicle and equipment travel. These activities would result in loss of suitable breeding habitat or foraging habitat, destruction of nests or burrows, and could cause mortality or injury to species located in the proposed work areas, access routes, or areas outside work areas and buffer areas. These impacts are described in greater detail for each species below.

Table 4.4-8 Proposed Project Impacts to Vegetation Communities within the Project Area

Vegetation Community	Disturbance Area (acres)			
	Proposed Substation	TL 6965 Transmission Corridor	Staging Yards	Total
Permanent Impacts				
Unvegetated Channel and Concrete Brow Ditch	0.06	---	---	0.06
Diegan Coastal Sage Scrub	1.02	0.30	---	1.32
Native Grassland	1.59	---	---	1.59
Nonnative Grassland	5.54	1.68	---	7.22
Total Permanent Impacts	8.21	1.98	0.00	10.19
Temporary Impacts				
Unvegetated Channel and Concrete Brow Ditch	0.06	0.013	---	0.073
Diegan Coastal Sage Scrub	0.15	0.58	---	0.73
Nonnative Grassland	1.15	2.00	6.47	9.62
Total Temporary Impacts	1.36	2.59	6.47	10.42

4.4 BIOLOGICAL RESOURCES

Species located within the buffer area and vicinity, such as special-status reptiles, birds and mammals, may be indirectly impacted by noise and air emissions generated from vehicles and equipment in the project area. Special-status wildlife species may also be indirectly impacted through the introduction and proliferation of invasive nonnative plant species and temporary impacts associated with dust, sedimentation, erosion, and increased wildfire hazards during construction.

Impact Assessment

Table 4.4-9 provides a summary of the significance of potential impacts to biological resources prior to application of APMs, after application of APMs and before implementation of mitigation measures, and after the implementation of mitigation measures.

The proposed project is located within the area where SDG&E's utility operations are currently covered by the NCCP. Take projected to occur as a result of SDG&E's covered activities within the plan area is nearing the level initially authorized under the NCCP. Take authorization for all of SDG&E's activities associated with the proposed project, including maintenance activities, may not be available through the current NCCP. However, the NCCP may be amended to add new area, cover additional species, subspecies or populations, or to amend the take authorization levels. SDG&E must maintain valid take authorization for all state and federally listed threatened or endangered species documented in the project area during pre-construction surveys (i.e., Coastal California gnatcatcher and least bell's vireo). The process to amend the plan will require a minimum of one year and the amended NCCP could be in place by as early as late summer 2016, or later (E. Hollenbeck, personal communication, March 25, 2015). If the NCCP is amended at any time prior to the completion of construction, SDG&E would submit a copy of the amended NCCP to the CPUC upon signing of the implementing agreement and SDG&E would follow the protocols in the amended NCCP. The CPUC shall have sole discretion to determine whether compliance with the amended NCCP will also satisfy the performance standards or requirements identified in mitigation measures in this EIR.

Specific biological resource mitigation measure requirements may be satisfied through compliance with the NCCP, amended NCCP, permit conditions, or other authorizations obtained by SDG&E, if these requirements are equally or more effective than the mitigation identified in this EIR. SDG&E shall provide the CPUC with copies of permits or other authorizations including any future amendments to the NCCP, and supporting documentation, to show that compliance with permitting conditions will be equally or more effective as mitigation for impacts to biological resources. The CPUC shall have sole discretion to determine whether compliance with permit conditions will also satisfy the performance standards or requirements identified in mitigation measures in this EIR. If the CPUC determines that compliance with permit conditions will also satisfy the mitigation measures in this EIR, SDG&E shall submit reports to the CPUC documenting compliance consistent with the reporting requirements of the equivalent mitigation measure or measures.

4.4 BIOLOGICAL RESOURCES

Table 4.4-9 Summary of Potential Impacts to Biological Resources

Significance Criteria	Project Phase	Significance Prior to APMs	Significance After APMs and Before Mitigation	Significance After Mitigation
Impact Bio-1: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	Construction	Significant	Significant APM AIR-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1	Less than significant MM Biology-1 MM Biology-2 MM Biology-3
Impact Bio-2: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any invertebrate species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	Construction	Significant	Significant APM AIR-1 APM BIO-4 APM HAZ-3 APM HYDRO-1	Less than significant MM Biology-1 MM Biology-2 MM Biology-3 MM Biology-4 MM Biology-5
Impact Bio-3: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any reptile species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	Construction	Significant	Less than significant APM AIR-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1	Less than significant
Impact Bio-4: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any avian species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	Construction	Significant	Less than significant APM AIR-1 APM BIO-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1	Less than significant MM Biology-3 MM Biology-6
Impact Bio-5: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any mammalian species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	Construction	Significant	Significant APM AIR-1 APM BIO-2 APM BIO-3 APM BIO-4 APM HAZ-3 APM HYDRO-1	Less than significant MM Biology-1 MM Biology-3 MM Biology-7 MM Biology-8

4.4 BIOLOGICAL RESOURCES

Significance Criteria	Project Phase	Significance Prior to APMs	Significance After APMs and Before Mitigation	Significance After Mitigation
Impact Bio 6: Potential for substantial adverse effect from project operation and maintenance, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	Operation and Maintenance	Significant	Significant APM BIO-2	Less than significant MM Biology-1 MM Biology-9 MM Biology-10
	Construction	Significant	Significant APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1	Less than significant MM Biology-3 MM Biology-11 MM Aesthetics-1
Impact Bio-7: Potential to cause a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS	Operation and Maintenance	Significant	Significant	Less than significant MM Biology-9
	Construction	Significant	Significant APM HYDRO-1	Less than significant MM Biology-3 MM Hydro-1 MM Aesthetics-1
Impact Bio-8: Potential to cause a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	Operation and Maintenance	Significant	Significant APM HYDRO-1	Less than significant
	Construction	Less than significant	Less than significant	Less than significant
Impact Bio-9: Potential to 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	Operation and Maintenance	No impact	No impact	No impact
	Construction	Less than significant	Less than significant	Less than significant
Impact Bio-10: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	Operation and Maintenance	No impact	No impact	No impact
	Construction	No impact	No impact	No impact
Impact Bio-11: Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan	Operation and Maintenance	No impact	No impact	No impact
	Construction	No impact	No impact	No impact

4.4 BIOLOGICAL RESOURCES

Impact Bio-1: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS (Less than significant with mitigation)

Direct Effects to Sensitive Plants

Individual instances of special-status plant species would be damaged or destroyed during the construction of the proposed project. San Diego County sunflower, San Diego barrel cactus, and Palmer's grappling hook would be directly impacted by grading and vegetation removal activities within the proposed substation site. Vegetation would be cleared and mass grading would occur to construct a flat substation pad. Vegetation would be permanently replaced within the substation yard with a gravel surface and the walled substation pad would be kept clear of vegetation. Special-status plant species would be impacted by grading, vegetation removal, drilling, and access for TL 6965 construction. Vegetation removal and grading would occur at pole work areas. Vegetation in access roads or stringing sites would be impacted from crushing and trampling by construction equipment or personnel. Plants would be impacted by construction-related habitat loss or modification of habitats that support special-status plant species.

Otay Tarplant

Areas of Otay tarplant are located in proximity to proposed TL 6965 work areas. Otay tarplant is a federally endangered species, and impacts to individuals or populations of Otay tarplant would be a significant impact. Construction personnel could impact Otay tarplant if they were to mistakenly drive off-road, work in an unauthorized area, or if there were a population in the work area that was not detected by previous surveys; these impacts would be significant. APM BIO-2 requires the implementation of the SDG&E NCCP protocols, including preconstruction surveys, delineation of sensitive areas, and worker training. Even after implementation of APM BIO-2, impacts to Otay tarplant would be significant because the 1995 NCCP protocols and mitigation measures may not apply to the project at the time of construction. An amendment process by SDG&E, CDFW, and USFWS to modify the NCCP would have to be completed to authorize additional take under the NCCP. Mitigation Measures Biology-1 and Biology-2 would be implemented to address this significant impact. Mitigation Measure Biology-1 requires the implementation of pre-construction surveys, delineation of sensitive areas, and worker training. Mitigation Measure Biology-2 requires compensatory mitigation for special-status plant species to mitigate impacts to this species. Impacts would be less than significant after mitigation.

San Diego Barrel Cactus

The grading and habitat modifications proposed within areas where populations or individual NCCP-covered San Diego barrel cactus are located would not have a substantial adverse impact on this special-status species. There is only one San Diego barrel cactus in the project area that could potentially be affected by construction of the proposed project. There is a total of 140 individual San Diego barrel cactus within the biological survey area. Impacts to one San Diego barrel cactus, less than one percent of the population in the biological survey area, would not be significant because the impact would not cause the population to drop below self-sustaining levels. Impacts would be less than significant, and no mitigation is required.

4.4 BIOLOGICAL RESOURCES

Palmer's Grappling Hook

Palmer's grappling hook is ranked as CRPR 4.2 and is a fairly common species in the region with 147 populations recorded throughout San Diego County (Calflora 2015). Impacts to 2 acres (approximately 1,065,000) of Palmer's grappling hook within the project area would be significant because of the large size of the population. SDG&E's NCCP (APM BIO-2) requires habitat restoration to offset loss of covered plant species, which would reduce impacts to Palmer's grappling hook. Impacts to Palmer's grappling hook would still be significant, even after implementation of APM BIO-2 because CDFW and USFWS are considering amending the NCCP, and the NCCP may not apply to the project at the time of construction. Mitigation Measure Biology-2 would reduce impacts to Palmer's grappling hook by requiring compensatory mitigation through habitat conservation or salvage and replanting at a minimum 1:1 ratio. Impacts would be less than significant with mitigation.

San Diego Sunflower

Grading and habitat modifications are proposed within an area where a population of San Diego County sunflower¹ occurs. San Diego County sunflower is not covered by the NCCP, and the applicant proposed mitigation does not address effects to this species. The San Diego County sunflower is fairly common in San Diego County with 19,450 plants recorded in the biological survey area for the project. The loss of 100 individual San Diego County sunflower plants at the proposed substation site and impacts to a population of San Diego County sunflower within a 7,662 square feet work area for pole 30 of TL 6965 would not have a substantial adverse effect on the species because the species would still be numerous within the biological survey area and it would not reduce regional populations to below self-sustaining levels. Impacts would be less than significant.

Other Special-status Plants

Areas in proximity to the proposed TL 6965 contain small flowered morning glory, graceful tarplant, San Diego marsh elder, and southwestern spiny rush. Construction personnel could impact these species if they were to mistakenly drive off-road, work in an unauthorized area, or if there were a population in the work area that was not detected by previous surveys. These impacts would affect a few individuals if individuals occur in work areas but would not have a substantial adverse impact on the species because the species are not threatened or endangered and are unlikely to occur in the area in large numbers because the species were not detected during previous surveys conducted during the blooming season. Impacts to small flowered morning glory, graceful tarplant, San Diego marsh elder, and southwestern spiny rush would be less than significant, and no mitigation is required.

¹ This species is also known as *Viguiera laciniata* and San Diego County viguiera.

4.4 BIOLOGICAL RESOURCES

Indirect Effects to Sensitive Plants

Construction disturbance would indirectly impact special-status plants through increased erosion, fugitive dust generation, noxious weed introduction, and increased wildfire risk. Increased erosion and fugitive dust could inhibit vegetative growth and success. The introduction and establishment of exotic (i.e., invasive, nonnative) plant species within or adjacent to special-status plant populations could adversely affect special-status plant species by reducing growth, dispersal, and recruitment. Exotic species are opportunistic and often occupy disturbed and bare soils such as those created in transmission line corridors during construction. Wildfires caused by construction are rare, but may occur. Exotic species may invade and spread in areas adjacent to and within burn areas following a wildfire. The increased erosion, fugitive dust, and introduction of exotic plant species would have a substantial adverse effect on special-status plant species near the project area; this would be a significant impact. SDG&E would implement APM AIR-1 and APM HYDRO-1 to control fugitive dust and erosion. SDG&E would also implement APM BIO-4 to restore temporarily disturbed areas and reduce introduction of invasive plants. Invasive exotic plants could still be introduced to the area with these APMs, resulting in a significant impact. Mitigation Measure Biology-3 defines methods to identify and control weeds within the project area. Indirect impacts to special-status plants would be less than significant with mitigation.

Effects to Critical Habitat

Otay tarplant critical habitat is located at the southern terminus of the TL 6965 transmission corridor (Figure 4.4-2). While there would be no direct impacts to Otay tarplants as a result of construction, there are potential indirect impacts to Otay tarplant critical habitat and suitable Otay tarplant habitat by the introduction and proliferation of invasive nonnative plant species from adjacent disturbed project areas, impacts to critical habitat from increased threat of wildfire, and temporary impacts associated with dust, sedimentation, and erosion during construction from adjacent project areas. These impacts to critical habitat would be significant.

SDG&E would implement APM AIR-1 and APM HYDRO-1 to control fugitive dust and erosion. SDG&E would also implement APM BIO-4 to restore temporarily disturbed areas and APM HAZ-3 to reduce the potential for wildfires. Noxious weed introduction could result in a substantial indirect impact to critical habitat for Otay tarplant. Even with implementation of these APMs, impacts to critical habitat from introduction of invasive weeds could be significant. Mitigation Measure Biology-3 includes noxious weed controls to reduce impacts on critical habitat. This measure would reduce impacts to critical habitat below the level of significance. Impacts would be less than significant with mitigation.

Mitigation Measures: Biology-1, Biology-2, and Biology-3

Mitigation Measure Biology-1: The following operational protocols shall be adhered to by SDG&E.

4.4 BIOLOGICAL RESOURCES

General Behavior for all Field Personnel:

1. Vehicles must be kept on access roads. A 15 mile-per-hour speed limit shall be observed on dirt access to allow for reptile species to disperse. Vehicles must be turned around in established or designated areas only.
2. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb.
3. Firearms shall be prohibited on the right-of-way except for those used by security personnel.
4. Feeding of wildlife is not allowed.
5. SDG&E personnel are not allowed to bring pets on the rights-of-way in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations.
6. Plant or wildlife species may not be collected for pets or any other reason.
7. Littering is not allowed. SDG&E shall not deposit or leave any food or waste on the rights-of-way or adjacent property.
8. Wild Fires 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, it may be necessary for trucks to 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 should be exhibited when smoking in natural habitats.
9. Field crews shall refer environmental issues including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impact to the Qualified Biologist. Additional biologists or experts in wildlife handling may need to be brought in by the Qualified Biologist for assistance with wildlife relocations.

Qualified Biologist:

10. San Diego Gas & Electric (SDG&E) shall retain qualified biologists and other qualified resource specialists, as necessary, to monitor all project construction activities that could reasonably result in impacts to biological resources. All monitor qualifications shall be reviewed and approved by the California Public Utilities Commission (CPUC) prior to conducting monitoring activities for the project. Monitors shall be responsible for pre-activity surveys, work area delineations (i.e., staking, flagging, etc.) to comply with the mitigation measures in this EIR including on-site monitoring and documentation of violations and compliance.

Training:

11. An environmental training program shall be developed and presented to all crew members prior to the beginning of all project construction. The

4.4 BIOLOGICAL RESOURCES

training shall describe special-status plant and wildlife species and sensitive habitats that could occur within project areas, protection afforded to these species and avoidance and minimization measures required to avoid and/or minimize impacts from the project. 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 roles and responsibilities of the CPUC-approved biologists and other environmental representatives shall be identified in the Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) and discussed during the training. All new construction personnel shall receive this training before beginning work on this project.

A copy of the training and training materials shall be provided to 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 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 the Qualified Biologist, or initial training shall be recorded and replayed for new personnel.

Pre-activity Surveys:

12. The Qualified Biologist shall conduct a pre-activity survey for all activities occurring off of access roads in natural areas. The pre-activity survey will be conducted no earlier than 30 days prior to surface disturbance. The results of the pre-activity survey will be documented by the Qualified Biologist in a pre-activity survey report. The pre-activity survey report will be submitted to the CPUC for review and approval and the results shall be submitted to CDFW and USFWS as required by any other regulatory permits or approvals. The pre-activity study report will include the following:

- Type, location, and size of project
- Date, time, weather, surrounding land uses
- Evaluation of type and quality of habitat
- Work description and methods which will be used to avoid or minimize ground disturbance, including biological monitoring during construction
- Anticipated impacts and proposed mitigation
- Map of location of work area

In those situations where the Qualified Biologist cannot make a definitive species identification, the Qualified Biologist shall make a determination based on the available evidence and professional expertise

13. In order to ensure that habitats are not inadvertently impacted, the Qualified Biologist shall determine the extent of habitat and flag

4.4 BIOLOGICAL RESOURCES

boundaries of habitat which must be avoided. When necessary, the Qualified Biologist should also demark appropriate equipment laydown areas, vehicle turn around areas, and pads for placement of large construction equipment such as cranes, bucket trucks, augers, etc. When appropriate, the Qualified Biologist shall make office and/or field presentations to field staff to review and become familiar with natural resources to be protected on a project specific basis.

14. SDG&E will maintain a library of rare plant locations known to SDG&E occurring within the project area. "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 local agency Habitat Conservation Plans, pre-activity surveys, or biological surveys conducted for environmental compliance on a project site (e.g. initial study), but there is no requirement for development of original biological data. Plant inventories shall be consulted as part of pre-activity survey procedures.

Maintenance, Repair, and Construction of Facilities:

15. Maintenance, repair and construction activities shall be designed and implemented to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs.
16. Routine maintenance of all Facilities includes visual inspections on a regular basis, conducted from vehicles driven on the access roads where possible. If it is necessary to inspect areas which cannot be seen from the roads, the inspection shall be done on foot, or from the air.
17. Erosion will be minimized on access roads and other locations primarily with water bars. The water bars are mounds of soil shaped to direct flow and prevent erosion.
18. Hydrologic impact will be minimized through the use of state-of-the-art technical design and construction techniques to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water by use of Best Management Practices.
19. When siting new facilities, every effort will be made to cross the wetland habitat perpendicular to the watercourse, spanning the watercourse to minimize the amount of disturbance to riparian area.
20. During repair or maintenance of facilities in a streambed, water may be temporarily diverted as long as the natural drainage patterns are restored after disturbance to minimize the impact of the disturbances and help to reestablish or enhance the native habitat. Erosion control during construction in a streambed in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage pattern and prevent siltation.

4.4 BIOLOGICAL RESOURCES

21. Impact to wetlands shall be minimized by avoiding pushing soil or brush into washes or ravines.
22. During work on facilities, all trucks, tools, and equipment should be kept on existing access roads or cleared areas, to the extent possible.
23. Qualified Biologist must approve of an activity prior to working in any sensitive area where disturbance to habitat may be unavoidable.
24. Insulator washing is allowed from access roads if other applicable protocols are followed
25. Brush clearing around facilities for fire protection shall not be conducted from March through August without prior approval by the Qualified Biologist. The Qualified Biologist will make sure that the habitat contains no active nests, burrows, or dens prior to clearing.
26. In the event SDG&E identifies a special-status plant within a 10-foot radius around power poles, which is the area required to be cleared for fire protection purposes, SDG&E shall notify USFWS (for ESA listed plants), and CDFW (for CESA listed plants), in writing, of the plant's identity and location and of the proposed Activity, which will result in a Take of such plant. Notification will occur ten (10) working days prior to such Activity, during which time USFWS or CDFW may remove such plant(s). If neither USFWS nor CDFW have removed such plant(s) with the ten (10) working days following the notice, SDG&E may proceed to complete its fire clearing and cause a Take of such plant(s) consistent with SDG&E's take coverage for the ESA or CESA listed plants.

When fire clearing is necessary in instances other than around power poles, and the potential for impacts to special-status species exist, SDG&E will follow the pre-activity study and notification procedures in number 12, above.

27. Wire stringing is allowed year round in sensitive habitats if conductor is not allowed to drag on ground or in brush and vehicles remain on access roads.
28. Maintenance of cut and fill slopes shall consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.
29. Spoils created during maintenance operations shall be disposed of only on previously disturbed areas designated by the Qualified Biologist or used immediately to fill eroded areas. Cleared vegetation shall be hauled off the rights-of-way to a permitted disposal location.
30. The Qualified Biologist should be contacted to perform a pre-activity survey when trimming is planned in environmentally sensitive areas. Whenever possible, trees will be scheduled for trimming in the non-breeding season.

4.4 BIOLOGICAL RESOURCES

31. If any previously unidentified dens, burrows, or plants are located on any project site after the pre-activity survey, the Qualified Biologist shall be contacted. Qualified Biologist will determine how to best avoid or minimize impacting the resource by considering such methods as project or work plan redevelopment, equipment placement or construction method modification, seasonal/time of day limitations, etc. The Qualified Biologist shall report the dens, burrows, or plants to the CPUC and describe the method for avoidance and minimization of the resource consistent with the APMs and mitigation measures in this EIR.
32. The Qualified Biologist shall conduct monitoring as recommended in the pre-activity survey report. At completion of work, the Qualified Biologist shall check to verify compliance; including observing that flagged area have been avoided and that reclamation has been properly implemented. Also at completion of work, the Qualified Biologist is responsible for removing all habitat flagging from the construction site.
33. The Qualified Biologist shall conduct checks on mowing procedures, to ensure that mowing is limited to a 12-foot wide area on straight portions of the road (slightly wider on radius turns), and that the mowing height is no less than 4 inches.
34. Supplies or equipment where wildlife could hide (e.g., pipes, culverts, pole holes) shall be inspected prior to moving or working on them to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected or from which animals could not be removed shall be capped or otherwise covered at the end of each work day. Old piping or other supplies that have been left open, shall not be capped until inspected and any species found in it allowed to escape. Ramping shall be provided in open trenches when necessary. If an animal is found entrapped in supplies or equipment, such as a pipe section, the supplies or equipment shall be avoided and the animal(s) left to leave on its own accord, except as otherwise authorized by CDFW.
35. All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife are located in the trench or excavation, the Qualified Biologist shall be called immediately to remove them if they cannot escape unimpeded.
36. Large amounts of fugitive dust could interfere with photosynthesis. Fugitive dust created during clearing, grading, earth-moving, excavation or other construction activities will be controlled by regular watering. At all times, fugitive dust emissions will be controlled by limiting on-site vehicle speed to 15 miles per hour.
37. Before using pesticides in areas where burrowing owls may be found, a pre-activity survey will be conducted.

4.4 BIOLOGICAL RESOURCES

Maintenance of access roads shall consist of:

38. Repair erosion by grading, addition of fill, and compacting. In each case of repair, the total area of disturbance shall be minimized by careful access and use of appropriately sized equipment. Repairs shall be done after pre-activity surveys conducted by the Qualified Biologist and in accordance with the recommendations regarding construction monitoring and relevant protocols. Consideration should be given to source of erosion problem, when source is within SDG&E control.
39. Vegetation control through grading should be used only where the vegetation obscured the inspection of facilities, access may be entirely lost or the threat of Facility failure or fire hazard exists. The graded access road area should not exceed 12-feet-wide on straight portions (radius turns may be slightly wider).
40. Mowing habitat can be an effective method for protecting the vegetative understory while at the same time creating access to a work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing will be necessary to maintain permanent access.
41. Maintenance work on access roads should not expand the existing road bed.
42. Material for filling in road ruts should never be obtained from the sides of the road, which contain habitat, without approval from Qualified Biologist.

Construction of new access roads shall comply with the following:

43. SDG&E access roads will be designed and constructed according to the SDG&E *Guide for Encroachment on Transmission Rights-of-Way (4/91)*.
44. Access roads will be made available to managers of the regional preserve system subject to coordination with SDG&E.
45. New access roads shall be designed to be placed in previously disturbed areas and areas which require the least amount of grading in sensitive areas during construction whenever possible. Preference shall be given to the use of stub roads rather than lining facilities tangentially.
46. SDG&E will consider providing access control on access roads leading into the regional preserve system where such control provides benefit to sensitive resources.
47. New access road construction is allowed year round. Every effort shall be made to avoid constructing roads during the nesting season. During the nesting season, the presence or absence of nesting species shall be determined by a biologist and appropriate avoidance and minimization recommendations followed.

4.4 BIOLOGICAL RESOURCES

Construction and Maintenance of Access Roads through Stream Beds:

48. Construction of new access roads through streambeds requires a Streambed Alteration Agreement from CDFW and/or consultation with the Army Corps of Engineers.
49. Maintenance or construction vehicle access through shallow creeks or streams is allowed. However, no filing for access purposes in waterways is allowed without the installation of appropriately sized culverts. The use of geotextile matting should be considered when it would protect wetland species.
50. Staging/storage area for equipment and materials shall be located outside of riparian area.

Survey Work:

51. Brush clearing for foot path or line-of-sight cutting is not allowed from March through August in sensitive habitats without prior approval from the Qualified Biologist, who will ensure the brush clearing activity, does not adversely affect a sensitive species.
52. SDG&E survey personnel must keep vehicles on existing access roads. No clearing of brush for panel point placement is allowed from March through August without prior approval from the Qualified Biologist.
53. Hiking off roads or paths for survey data collection is allowed year round so long as other protocols are met.

Emergency Repairs:

54. During a system emergency, unnecessary carelessness which results in environmental damage is prohibited.
55. Emergency repair of facilities is required in situations which potentially or immediately threaten the integrity of the SDG&E system, such as pipe leaks or downed lines, slumps, slides, major subsidence, etc. During emergency repairs this mitigation measure shall continue to be followed to fullest extent possible.
56. Once the emergency has stabilized, any unavoidable environmental damage will be reported to the Qualified Biologist by the foreman. The Qualified Biologist will develop a mitigation plan and ensure its implementation is consistent with this mitigation measure.

Compensatory Mitigation and Habitat Enhancement Measures:

SDG&E will provide compensatory mitigation for temporary and permanent impacts to vegetation communities caused by the proposed project. SDG&E will follow the guidelines set in Sections 7.2 and 7.4 of the NCCP dated 1995. SDG&E shall provide CPUC with evidence of available habitat mitigation lands for project temporary and permanent impacts to vegetation communities at least 30 days prior to the start of construction. If SDG&E proposes to conduct on-site habitat enhancement activities in

4.4 BIOLOGICAL RESOURCES

lieu of preservation of habitats within a mitigation bank, SDG&E shall submit a Habitat Enhancement Plan to CPUC at least 30 days prior to the start of construction for CPUC review and approval. At a minimum, the habitat enhancement plan must demonstrate the enhancement of vegetation communities impacted by the project, define the methods used to enhance the habitat, and include monitoring for 5 years and until success criteria are met. Success criteria for habitat enhancement will include improving degraded habitats at a minimum of a 2:1 ratio for vegetation communities impacted by the project.

Mitigation Measure Biology-2: Impacts to special-status plant species shall be avoided to the extent feasible. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation. Where off-site land preservation is biologically preferred, the land shall contain comparable special-status plant resources as the impacted lands and shall include long-term management and legal protection assurances to the satisfaction of the CPUC. Land preservation must be completed within 18 months of construction start. Where salvage and relocation is demonstrated to be feasible and biologically preferred, it shall be conducted pursuant to an agency-approved plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites. The plan shall also define the monitoring strategy with a minimum of annual monitoring for 5 years and until success criteria are met. Success criteria shall include a minimum of 1:1 replacement of the impacted population with 2:1 mitigation for Otay tarplant. Any salvage and relocation plans must be approved by CDFW, USFWS, and CPUC at least 30 days prior to project construction.

Mitigation Measure Biology-3: Precautions shall be taken to minimize the introduction and spread of invasive weeds. Weed control shall include the following:

1. Prior to construction, all work areas within SDG&E ROW shall be reviewed for the presence of weed populations that are rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory Database (<http://www.cal-ipc.org/paf/>). These plant species shall be treated or mechanically removed prior to construction according to control methods and practices for invasive weed populations designed in consultation with the California Invasive Plant Council (Cal-IPC).
2. Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the San Diego County Agriculture Commissioner. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Advisor (PCA) and implemented by a Qualified Applicator. Where manual and/or mechanical methods are used, plant debris shall be disposed of in a landfill. Timing of weed control treatment shall be determined for each plant species in consultation with the PCA, the San Diego County Agriculture Commissioner, and Cal-IPC, with the goal of controlling populations before they start producing seeds.

4.4 BIOLOGICAL RESOURCES

3. Construction vehicles and equipment shall be washed (including wheels, undercarriages, and bumpers) before entering and again before leaving the substation site. In addition, tools such as chainsaws, hand clippers, and pruners shall be washed before entering and again before leaving all project areas. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill. A written daily log shall be kept for all vehicle/equipment/tool washing that states the date, time, location, type of equipment washed, methods used, and staff present. The log shall include the signature of a responsible staff member. Logs shall be available to CPUC and wildlife agencies for inspection at any time and shall be submitted to CPUC on a monthly basis.
4. During project construction, all seeds and straw materials shall be certified weed-free, and all gravel and fill material shall be certified weed-free.
5. From the time construction begins until 2 years after construction is complete, identified and treated populations shall be monitored annually for reestablishment of weeds. Treated populations that reestablish shall be retreated on an annual basis.
6. Only native plants and seed or ecologically appropriate, non-invasive plants and seed shall be used in proposed project landscaping. A list of all plants and seed mixes proposed for project landscaping, erosion control, and the revegetation of temporary impact areas shall be provided to CPUC for approval at least 30 days prior to construction. Plant and seed materials brought to the project site shall be field-verified against this list by the CPUC inspector prior to planting and seed mix application.

Optional Measure Biology-1: To further minimize the construction-related direct impacts to San Diego County sunflower (a species that has limited distribution in California, but is not a federally or state-listed endangered plant), San Diego County sunflower shall be included in the planting/seed mix for revegetation of temporary impacts of the proposed project in suitable habitat areas.

Significance After Mitigation: Less than significant.

Impact Bio-2: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any invertebrate species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS (Less than significant with mitigation)

Direct Effects to Special-Status Invertebrates

Quino Checkerspot Butterfly

No QCB were detected during three protocol surveys of the proposed substation site and transmission corridor. The proposed substation site and transmission corridor provide unoccupied suitable habitat for QCB. Project construction would result in temporary impacts to 2.63 acres of suitable QCB habitat and permanent impacts to 2.73 acres of suitable habitat.

4.4 BIOLOGICAL RESOURCES

Although no QCB were detected during previous surveys, QCB could potentially occur in the area and are assumed to occur in areas that would be affected during construction. SDG&E has obtained approval of a low-effect HCP for this species. Implementation of SDG&E's QCB HCP would reduce impacts to QCB to a less-than-significant level through preconstruction surveys for QCB, avoidance of suitable habitat, and acquisition of compensatory habitat if new facilities cannot be sited and designed to avoid suitable habitat. The HCP requires SDG&E to implement general and QCB-specific operational protocols to avoid or minimize take of QCB. The SDG&E's HCP for QCB relies on the 1995 NCCP and states that should the 1995 Subregional NCCP become ineffective (i.e., is no longer being implemented), the protocols therein will still be implemented whenever a covered activity takes place in QCB habitat. Although, the NCCP may be undergoing an amendment process, the protocols detailed in the 1995 NCCP would still be applied under the QCB HCP. Impacts would be less than significant.

The loss of suitable QCB habitat at the proposed substation site was mitigated by SDG&E at a ratio of 1:1.11 through purchase of credits at the City of Chula Vista Otay Ranch Preserve (AECOM 2013e). If QCB are observed in the project area during future surveys, additional habitat mitigation would be required under the SDG&E QCB HCP. SDG&E's QCB HCP requires mitigation at a 2:1 ratio for QCB occupied habitat. Impacts to suitable QCB habitat would be less than significant due to habitat mitigation in accordance with SDG&E's QCB HCP. No mitigation is required.

Hermes Copper Butterfly

Hermes copper butterfly were not detected during surveys of the biological survey area. Construction activities would result in the loss of suitable habitat areas for Hermes Copper butterfly within the transmission corridor (areas containing the larval host plant, spiny redberry, and flattop buckwheat for a nectar source). Hermes copper butterfly is not covered by SDG&E's NCCP and the protections in the NCCP are not designed to protect Hermes copper butterfly. Direct loss of these species from construction-related habitat loss and vehicle or equipment collisions would be a significant impact. Mitigation Measure Biology-1 requires worker training to avoid impacts to the species from construction equipment and activities. Mitigation Measure Biology-4 requires pre-construction surveys for Hermes copper butterfly, and Mitigation Measure Biology-5 specifies habitat mitigation for Hermes copper butterfly. Impacts to Hermes copper butterfly would be less than significant with mitigation.

Indirect Effects to Special-Status Invertebrates

Special-status invertebrate species located within the buffer area may be indirectly impacted by air emissions generated from vehicles and equipment in the project area. Special-status invertebrate species may also be indirectly impacted from habitat loss as a result of introduction and proliferation of invasive non-native plant species; increased wildfire risk; and dust, sedimentation, and erosion from construction ground disturbance. Habitat loss would be a significant impact. SDG&E would implement APM AIR-1 and APM HYDRO-1 to control fugitive dust and erosion. SDG&E would also implement APM BIO-4 to restore temporarily disturbed areas and APM HAZ-3 to reduce the risk of wildfires. The impacts from invasive weed introduction would remain significant following implementation of APMs. Mitigation

4.4 BIOLOGICAL RESOURCES

Measure Biology-3 would reduce impacts from invasive weeds. Indirect impacts to special-status invertebrates would be less than significant with mitigation.

Mitigation Measures: Biology-1, Biology-3, Biology-4, and Biology-5

Mitigation Measure Biology-4: SDG&E shall conduct surveys for Hermes copper butterfly within 1 year prior to project construction activities in suitable habitat. Surveys shall be conducted by a qualified biologist in all suitable habitat areas for Hermes copper butterfly. Suitable habitat areas include any woody (mature) spiny redberry shrub with California buckwheat within 15 feet. California buckwheat without spiny redberry nearby is not considered suitable habitat. Surveys shall follow the “County of San Diego Guidelines for Hermes Copper (*Lycaena hermes*)” (County of San Diego 2010). Survey results shall be reported to the USFWS and CPUC within 30 days of survey completion and prior to project construction activities.

Mitigation Measure Biology-5: Temporary and permanent impacts to Hermes copper butterfly shall be compensated at a ratio of 1:1 for unoccupied habitat and 2:1 for occupied habitat. Habitat compensation shall be accomplished through land preservation or mitigation fee payment for the purpose of habitat compensation for lands supporting Hermes copper butterfly. Land preservation or mitigation fee payment for habitat compensation shall be completed within 18 months of project initiation. Habitat restoration may be appropriate as habitat compensation provided that the restoration effort is demonstrated to be feasible and is implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the CPUC and permitting agencies prior to project construction. All habitat compensation and restoration used as mitigation for the proposed project shall include long-term management and legal protection assurances.

Significance After Mitigation: Less than significant.

Impact Bio-3: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any reptile species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS (Less than significant; no mitigation required)

Direct Effects to Special-Status Reptiles

Northern Red-diamond Rattlesnake²

Northern red-diamond rattle snake were observed within the northern portion of the transmission corridor. Project construction would result in direct impacts to northern red-

² This species is listed in the NCCP as northern red rattlesnake.

4.4 BIOLOGICAL RESOURCES

diamond rattle snake if the species occurred in or near the project area during construction. The project would not affect a substantial number of northern red-diamond rattle snake due to the limited suitable scrub habitat in the area and low number of observed individuals. Impacts to individuals would therefore not cause populations to drop below self-sustaining levels and would not have a substantial adverse impact on the species. Impacts would be less than significant, and no mitigation is required.

Other Special-status Reptile Species

Special-status reptiles with a moderate potential to occur in the project area consist of the following species:

- San Diego ringneck snake
- Coastal rosy boa
- Coronado Island skink
- Coast patch-nosed snake
- Two-striped garter snake

These species were not observed during surveys in the biological survey area. The project would not affect a substantial number of these special-status reptiles due to the limited suitable scrub habitat in the area and the absence of observed individuals. Impacts to a small number of individuals would not have a substantial adverse impact on the species and impacts would be less than significant. No mitigation is required.

Impacts to special-status reptile species would occur through temporary impacts to 0.73 acres and permanent impacts to 1.32 acres of moderately suitable scrub habitat for San Diego ringneck snake, coastal rosy boa, Coronado Island skink, and coast patch-nosed snake within the power line corridor and the proposed substation site. Project related habitat loss for these species would be a less than significant impact because the habitat loss is small relative to the availability of scrub habitats to the south north and east of the project. Cumulative impacts to habitat are discussed in Section 5: Cumulative Impacts. No mitigation is required.

The proposed project would not impact suitable habitat for two-striped garter snake because suitable aquatic habitat does not occur in the project area. There would be no impact to two-striped garter snake from habitat loss. No mitigation is required.

Indirect Effects to Special-Status Reptiles

Special-status reptiles located within the buffer area may be indirectly impacted by air emissions generated from vehicles and equipment in the project area. Special-status reptile species may also be indirectly impacted from habitat loss as a result of introduction and proliferation of invasive nonnative plant species and dust, sedimentation, and erosion from construction ground disturbance and increased wildfire risk. Impacts to special-status reptiles from these indirect effects would be significant. SDG&E would implement APM AIR-1 and APM HYDRO-1 to control fugitive dust and erosion. SDG&E would also implement APM BIO-4 to restore temporarily disturbed areas and reduce the likelihood that invasive weeds would enter the area and cause habitat loss. APM HAZ-3 would reduce the risk of wildfires. Indirect

4.4 BIOLOGICAL RESOURCES

impacts to special-status reptiles would be less than significant with implementation of these APMs. No additional mitigation is required.

Mitigation Measures: None required.

Impact Bio-4: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any avian species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS (Less than significant with mitigation)

Direct Effects to Special-Status Avian Species

Potential direct impacts to special-status avian species include injury or mortality of individuals from collision with construction equipment or destruction of a nest during vegetation removal and earthwork. In addition, project construction at the proposed substation and along the proposed TL 6965 power line would last approximately 18 to 24 months, and the increased construction noise would directly impact special-status avian species if the project causes nest abandonment or failure.

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow were detected in the proposed substation site and buffer area. Direct impacts to this species through injury or mortality of individuals from collision with equipment or destruction of a nest during vegetation removal and earthwork, or nest abandonment or failure from construction noise would be a significant impact.

SDG&E would implement APM BIO-2, which would require the implementation of the NCCP. The NCCP requires pre-activity surveys within project work areas and biological monitoring. Impacts could still be significant after application of APM BIO-2 because the NCCP does not include buffers from work areas to reduce nest abandonment and failure. In addition, the NCCP operational protocols may not apply to the project at the time of construction because the NCCP is undergoing an amendment process. Mitigation Measures Biology-6 would be implemented to address the significant impacts associated with not being able to implement NCCP protocols and the lack of buffers in the NCCP protocols. Mitigation Measures Biology-6 includes requires pre-activity surveys, biological monitoring, and specifies no-disturbance buffers to reduce impacts to nesting birds. Impacts would be less than significant after mitigation.

Construction of the proposed substation and TL 6965 would result in temporary and permanent impacts to grassland and scrub habitat, which provide suitable foraging habitat for Southern California rufous-crowned sparrow. Temporary and permanent loss of foraging habitat for this species would have a less than significant impact to rufous-crowned sparrow due to the small loss of this habitat from the project and presence of suitable grassland and scrub habitats to the north and south of the project and within the transmission corridor. Impacts to rufous-crowned sparrow as a result of habitat modification would be less than significant. No mitigation is required.

4.4 BIOLOGICAL RESOURCES

Cooper's Hawk

Cooper's hawk were detected in the proposed substation site and the southern portion of the transmission corridor and buffer areas (AECOM 2013e). Direct impacts to this species through injury or mortality of individuals from collision with equipment, destruction of a nest during tree removal, or nest abandonment or failure from construction noise would be a significant impact. SDG&E's NCCP (APM BIO-2) requires pre-activity surveys within project work areas and biological monitoring. Impacts could still be significant after application of APM BIO-2 because the NCCP does not include buffers from work areas to reduce nest abandonment and failure. In addition, the NCCP operational protocols may not apply to the project at the time of construction because the NCCP is undergoing an amendment process. Mitigation Measures Biology-6 would be implemented to address the significant impacts associated with not being able to implement NCCP protocols and the lack of buffers in the NCCP protocols. Mitigation Measures Biology-6 includes requires pre-activity surveys, biological monitoring, and specifies no-disturbance buffers to reduce impacts to nesting birds. Impacts would be less than significant after mitigation.

Construction of the proposed substation and TL 6965 would result in temporary and permanent impacts to grassland and scrub habitat, which provide suitable foraging habitat for Cooper's hawk. These losses of suitable foraging and nesting habitat would be less than significant due to the presence of suitable nesting and foraging habitat in the areas north and south of the project and within the transmission corridor. Impacts to Cooper's hawk as a result of habitat modification would be less than significant. No mitigation is required.

Tricolored Blackbird

No tricolored blackbird were detected during surveys of the biological survey area. Project construction would not impact suitable foraging or breeding (freshwater cattail marsh) habitat for tricolored blackbird. The project would not directly impact tricolored blackbird nests or individuals due to the absence of activity in suitable habitat. There would be a significant impact to tricolored blackbird if nest abandonment or failure were to result from construction noise. SDG&E would implement Mitigation Measure Biology-6, which specifies no-disturbance buffers to reduce impacts to nesting birds. Impacts would be less than significant after mitigation.

Grasshopper Sparrow

Grasshopper sparrow were detected during surveys of the proposed substation site (AECOM 2013e). Project construction would result in nest destruction, nest abandonment or failure, or potential mortality or injury to individual grasshopper sparrow if a nest or individuals were to occur in or near an area of vegetation removal or active equipment and vehicle use. This impact would be significant. This significance threshold is consistent with California Fish and Game Code and MBTA prohibitions regarding nests and birds. APM BIO-2 (ensuring compliance with SDG&E's NCCP) would reduce this impact through pre-activity surveys within project work areas and biological monitoring. Impacts could still be significant after application of APM BIO-2 because the NCCP does not require buffers from work areas to reduce nest abandonment and failure. And, as discussed above, because take authorization may not be available through the

4.4 BIOLOGICAL RESOURCES

current NCCP, SDG&E may apply to amend the NCCP. Mitigation Measures Biology-6 includes requires pre-activity surveys, biological monitoring, and specifies no-disturbance buffers to reduce impacts to nesting birds. Impacts would be less than significant with mitigation.

Construction of the proposed substation and TL 6965 would result in temporary and permanent impacts to grassland and scrub habitat, which provide suitable foraging and nesting habitat for grasshopper sparrow. The temporary and permanent loss of suitable foraging and nesting habitat would be less than significant due to the presence of suitable foraging and nesting habitat south and north of the project and within the transmission corridor. Impacts to grasshopper sparrow from habitat modification would be less than significant. No mitigation is required.

Golden Eagle

No golden eagle were detected during surveys of the biological survey area. The nearest occurrence of a golden eagle was recorded approximately 6 miles east of the project area on Otay Mountain. The project area provides suitable foraging habitat in the grasslands and scrublands. Golden eagle are known to forage up to 6 miles from nest locations; however, habitat use is typically concentrated closer to the nest. The risk of injury or mortality to golden eagles from project construction is extremely small because there is no nesting habitat in the project area and golden eagles would not use an active construction area for foraging. The project would result in significant impacts to golden eagle from nest abandonment or failure from construction noise if a golden eagle established a nest within 1 mile of the project area. Mitigation Measure Biology-6, which specifies no-disturbance buffers, would reduce impacts to golden eagle to less than significant.

The project would result in permanent impacts to approximately 8.55 acres of suitable foraging habitats. This impact would be less than significant due to the presence of suitable habitat in the 6 miles between the nest and the project area. No mitigation is required.

Western Burrowing Owl

Western burrowing owl were detected in the proposed substation site, transmission corridor, and buffer area for the Hunte Parkway staging yard (AECOM 2013a; Appendix D, Figures 18 through 26). A total of 86 potentially suitable burrows or burrow clusters have been documented within the transmission corridor. Vehicle and equipment traveling within the transmission corridor and work areas could result in burrow destruction and mortality of burrowing owls if the destroyed burrows are occupied. These effects would result in a significant impact. Construction noise would also result in burrow abandonment if burrowing owl were to occur near areas of active construction equipment. APM BIO-1 requires preconstruction surveys for burrowing owl and avoidance of burrowing owl burrows with buffers. APM BIO-1 also requires implementation of a mitigation and monitoring plan following CDFW guidelines. A Burrowing Owl Monitoring and Mitigation Plan (BOMMP) was prepared by SDG&E. The Plan incorporates the CDFW-approved methodology for monitoring of burrowing owls during construction and mitigation of burrowing owl impacts from the proposed project. The BOMMP is provided in Appendix D. Impacts to western burrowing owl

4.4 BIOLOGICAL RESOURCES

would be less than significant through implementation of APM BIO-1 and the BOMMP. No additional mitigation is required.

Construction would result in temporary and permanent impacts to grasslands, which provide suitable burrowing and foraging habitat. The loss of suitable grassland habitat from the project would be minimal and would not be significant due to the presence of suitable habitat in areas to the north and south of the project and within the transmission corridor. Impacts from habitat loss would be less than significant, and no mitigation is required.

Ferruginous Hawk

Ferruginous hawk were not detected in the biological survey area during surveys (AECOM 2013e). The nearest recorded occurrence of ferruginous hawk is 37 miles from the project area. Impacts to ferruginous hawk are unlikely due to the absence of ferruginous hawk in the project range or any known occurrences in the vicinity. The project area provides suitable foraging habitat in grassland areas with rabbits and ground squirrels. Project construction would result in temporary and permanent impacts to grasslands providing suitable foraging habitat. The loss of suitable foraging habitat would be minimal on a regional scale and would not be significant because the habitat is outside of the foraging range for ferruginous hawk. There would be a significant impact to ferruginous hawk from nest abandonment or failure from construction noise if a nest were established near the project work area. Mitigation Measure Biology-6, which specifies no-disturbance buffers to reduce impacts to raptors including ferruginous hawk would reduce impacts to less than significant.

Swainson's Hawk

Swainson's hawk were not detected in the biological survey area during surveys (AECOM 2013e). Construction would result in destruction of a nest, injury or mortality of individuals, or nest abandonment or failure from construction noise if a nest were to occur in or near the construction area. This would be a significant impact. This significance threshold is consistent with California Fish and Game Code and MBTA prohibitions regarding nests and birds. These impacts would be reduced or avoided through implementation of SDG&E's NCCP protocols (APM BIO-2) including worker training, preconstruction surveys, and nest monitoring. Impacts could still be significant after application of APM BIO-2 because the NCCP does not include buffers from work areas to reduce nest abandonment and failure. In addition, the NCCP operational protocols may not apply to the project at the time of construction because the NCCP is undergoing an amendment process. Mitigation Measures Biology-6 would be implemented to address the significant impacts associated with not being able to implement NCCP protocols and the lack of buffers in the NCCP protocols. Mitigation Measures Biology-6 includes requires pre-activity surveys, biological monitoring, and specifies no-disturbance buffers to reduce impacts to nesting birds. Impacts would be less than significant after mitigation.

The project area provides suitable foraging habitat in grassland areas. Project construction would result in temporary and permanent impacts to grasslands providing suitable foraging habitat. The loss of suitable foraging habitat would be minimal on a regional scale and not

4.4 BIOLOGICAL RESOURCES

significant. Impacts from habitat loss would be less than significant, and no mitigation is required.

Northern Harrier

Northern harrier were observed foraging within the proposed substation site and southern portion of the TL 6965 corridor during surveys (AECOM 2013e). Project construction could result in nest destruction, nest abandonment or failure, or impacts to individual northern harrier if a nest or individuals were to occur in or near an area of vegetation removal or active equipment and vehicle use. This would be a significant impact. SDG&E's NCCP (APM BIO-2) would reduce the potential for impact to individuals from nest destruction through performance of pre-activity surveys and construction monitoring. Impacts could still be significant after application of APM BIO-2 because the NCCP does not include buffers from work areas to reduce nest abandonment and failure. In addition, the NCCP operational protocols may not apply to the project at the time of construction because the NCCP is undergoing an amendment process. Mitigation Measures Biology-6 would be implemented to address the significant impacts associated with not being able to implement NCCP protocols and the lack of buffers in the NCCP protocols. Mitigation Measures Biology-6 includes requires pre-activity surveys, biological monitoring, and specifies no-disturbance buffers to reduce impacts to nesting birds. Impacts would be less than significant after mitigation.

Construction of the proposed substation and TL 6965 would result in the temporary and permanent impacts to grassland and scrub habitat, which provide suitable foraging and nesting habitat for northern harrier. This impact from habitat modification is less than significant due to the presence of suitable foraging and nesting habitat in the areas surrounding the project that would not be affected by the project. Impacts from habitat loss would be less than significant, and no mitigation is required.

Coastal California Gnatcatcher

Coastal California gnatcatcher were observed at the north and south ends of the transmission corridor and buffer area. Project construction would result in nest destruction, or nest abandonment or failure, if a nest or individual gnatcatcher were to occur in or near an area of vegetation removal or active equipment and vehicle use. Nest destruction and nest abandonment or failure of coastal California gnatcatcher would be a significant impact. SDG&E would implement the NCCP protocols (APM BIO-2) to reduce impacts to coastal California gnatcatcher. These protocols include restricting vehicles to existing roads, when feasible, avoiding wildlife to the extent practicable, conducting pre-activity surveys, and providing biological monitoring where nests are found. Impacts could still be significant after application of APM BIO-2 because the NCCP does not include buffers from work areas to reduce nest abandonment and failure. In addition, the NCCP operational protocols may not apply to the project at the time of construction because the NCCP is undergoing an amendment process. Mitigation Measures Biology-6 would be implemented to address the significant impacts associated with not being able to implement NCCP protocols and the lack of buffers in the NCCP protocols. Mitigation Measures Biology-6 includes requires pre-activity surveys,

4.4 BIOLOGICAL RESOURCES

biological monitoring, and specifies no-disturbance buffers to reduce impacts to nesting birds. Impacts would be less than significant after mitigation.

Construction would result in temporary impacts to 0.73 acres and permanent impacts to 1.32 acres of Diegan coastal sage scrub. Diegan coastal sage scrub habitat provides suitable nesting and foraging habitat for coastal California gnatcatcher. These habitat modifications would not be a significant impact to Coastal California gnatcatcher due to the presence of suitable habitat in areas north and south of the project and in the transmission corridor that would not be affected by the project. Impacts from habitat loss would be less than significant, and no mitigation is required.

Least Bell's Vireo

Least bell's vireo were incidentally observed south of the proposed substation buffer area during project surveys (AECOM 2013e). Project construction would result in harm, harassment, or nest abandonment or failure of least bell's vireo if a nest or individual were to occur in or near an area of vegetation removal or active equipment and vehicle use. This would be a significant impact. SDG&E would implement the NCCP protocols (APM BIO-2) to reduce impacts to least bell's vireo. These protocols include restricting vehicles to existing roads, when feasible, avoiding wildlife to the extent practicable, conducting pre-activity surveys, and providing biological monitoring where nests are found. Impacts could still be significant after application of APM BIO-2 because the NCCP does not include buffers from work areas to reduce nest abandonment and failure. In addition, the NCCP operational protocols may not apply to the project at the time of construction because the NCCP is undergoing an amendment process. Mitigation Measures Biology-6 would be implemented to address the significant impacts associated with not being able to implement NCCP protocols and the lack of buffers in the NCCP protocols. Mitigation Measures Biology-6 includes requires pre-activity surveys, biological monitoring, and specifies no-disturbance buffers to reduce impacts to nesting birds. Impacts would be less than significant after mitigation.

Suitable least bell's vireo habitat occurs in the riparian scrub habitats in the transmission corridor and buffer for the proposed substation site. Construction would not result in temporary or permanent impacts to suitable habitat for least bell's vireo because the project was designed to avoid this sensitive habitat. There would be no impact.

Bell's Sage Sparrow

Bell's sage sparrow were observed in the northern and southern portions of the transmission corridor and within the proposed substation and buffer area during surveys (AECOM 2013e). Project construction would result in nest destruction, nest abandonment or failure, or impacts to individual Bell's sage sparrow if a nest or individuals were to occur in or near an area of vegetation removal or active equipment and vehicle use. This would be a significant impact. Bell's sage sparrow are protected under the MBTA and Fish and Game Code. This significance threshold is consistent with California Fish and Game Code and MBTA prohibitions regarding nests and birds. Mitigation Measure Biology-6 requires preconstruction surveys and nesting

4.4 BIOLOGICAL RESOURCES

buffers for migratory birds, including bell's sage sparrow. Impacts would be less than significant with mitigation.

Construction of the proposed substation and TL 6965 would result in the temporary and permanent impacts to grassland and scrub habitat, which provide suitable foraging and nesting habitat for Bell's sage sparrow. These effects would be less than significant due to the presence of suitable habitat in the areas surrounding the project. No mitigation is required.

Prairie Falcon

Prairie falcon were not detected in the biological survey area during surveys (AECOM 2013a). The risk of direct impacts to individual prairie falcons from nest destruction, nest abandonment or failure, or mortality of individuals is very small due to the distance between the closest recorded nest and the project area and the limited nesting habitat in the project area. While the likelihood of impact is low, the destruction of a nest or mortality of individuals, or nest abandonment would be a significant impact. This threshold is consistent with California Fish and Game Code and MBTA prohibitions regarding nest destruction and "take". Mitigation Measure Biology-6 requires preconstruction surveys and nesting buffers for raptors, including prairie falcon. Impacts would be less than significant with mitigation.

The project area provides suitable foraging habitat in grassland areas. Project construction would result in temporary and permanent impacts to grasslands providing suitable foraging habitat. The loss of suitable foraging habitat would be minimal on a regional scale and not significant. The average prairie falcon home range is approximately 11 square miles and most foraging occurs within 3 miles of the nest (DeLong and Steenhoff 2004). The project would cover a limited portion of a falcon's foraging range if a nest were to occur in the area. The loss of foraging habitat from the project would still be less than significant, and no mitigation is required.

White-tailed Kite

White-tailed kite were observed at the proposed substation site and throughout the transmission corridor during project surveys (AECOM 2013e). Construction would involve equipment use and activity near suitable nesting habitat (i.e., southern willow scrub and riparian vegetation communities) and within suitable foraging habitat at the proposed substation site and within the transmission corridor. White-tailed kite is a California Fully-Protected species. The project would result in nest destruction, injury or mortality of individual white-tailed kite, or nest abandonment or failure, if construction occurred within the close proximity of a nesting white tailed kite. This would be a significant impact. Mitigation Measure Biology-6 requires pre-construction surveys for nesting birds and includes buffers from work areas, including a 0.25 mile buffer for white-tailed kite to reduce the potential of nest abandonment and failure. Impacts would be less than significant after mitigation.

Construction of the proposed substation and TL 6965 would result in the loss of grasslands that provides suitable foraging habitat for white-tailed kite. This impact would be less than significant due to the presence of suitable habitat in areas that would not be affected by the

4.4 BIOLOGICAL RESOURCES

project to the south and north of the project and within the transmission corridor. Habitat impacts would be less than significant, and no mitigation is required.

California Horned Lark

A California horned lark was observed within the Hunte Parkway staging yard during project surveys (AECOM 2013a). Project construction could result in nest destruction, nest abandonment or failure, or potential mortality or injury to individual California horned lark if a nest or individuals were to occur in or near an area of vegetation removal or active equipment and vehicle use. This would be a significant impact. This significance threshold is consistent with California Fish and Game Code and MBTA prohibitions regarding nests and birds. Mitigation Measure Biology-7 requires preconstruction surveys and nesting buffers for migratory and nesting birds, including California horned lark. Impacts would be less than significant with mitigation.

Construction of the proposed substation and TL 6965 would result in the loss of grasslands that provide suitable nesting and foraging habitat for California horned lark. This would not be a significant impact because the loss of grassland habitat resulting from the project would be minimal and there would remain substantial suitable grassland foraging habitat surrounding the project. Impacts would be less than significant, and no mitigation is required.

Yellow-breasted Chat

Yellow-breasted chat were observed in riparian habitat at the south end of the transmission corridor during project surveys (AECOM 2013e). Suitable habitat for yellow-breasted chat occurs in the riparian, mulefat, and southern willow scrub habitats in the transmission corridor and buffer for the proposed substation site. Construction would not result in temporary or permanent impacts to suitable habitat for yellow-breasted chat. There would be no direct impacts to yellow-breasted chat suitable habitat.

Project construction at the proposed substation and along the proposed TL 6965 power line would last approximately 18 to 24 months, and the increased construction noise could cause yellow-breasted chat nest abandonment or failure, which would be a significant impact. Mitigation Measures Biology-6 specifies no-disturbance buffers to reduce impacts to yellow-breasted chat. Impacts would be less than significant after mitigation.

Yellow Warbler

Yellow warbler were observed in the proposed substation buffer area during project surveys (AECOM 2013e). Suitable habitat for yellow warbler occurs in the riparian, mulefat, and southern willow scrub habitats in the transmission corridor and buffer for the proposed substation site. Construction would not result in temporary or permanent impacts to suitable habitat for yellow warbler because the project was designed to avoid this sensitive habitat. There would be no direct impact to yellow warbler suitable habitat.

Project construction at the proposed substation and along the proposed TL 6965 power line would last approximately 18 to 24 months, and the increased construction noise could cause yellow warbler nest abandonment or failure, which would be a significant impact. Mitigation

4.4 BIOLOGICAL RESOURCES

Measures Biology-6 specifies no-disturbance buffers to reduce impacts to yellow warbler. Impacts would be less than significant after mitigation.

Direct Effects to Other Migratory Birds

Migratory birds are protected under the MBTA. Project construction could result in impacts to migratory birds, nests, and eggs of migratory birds through vegetation removal or active equipment and vehicle use and from nest abandonment as a result of construction noise. These impacts to migratory birds would be significant. Mitigation Measure Biology-6 requires preconstruction surveys, implementation of nesting buffers, and monitoring during construction to avoid impacts to nesting birds. Impacts to other non-special-status migratory birds would be less than significant with mitigation.

Indirect Effects to Special-Status Avian Species

Project construction could indirectly impact habitat for special-status avian species through introduction and proliferation of invasive nonnative plant species; wildfire caused by construction activity; and dust, sedimentation, and erosion from construction ground disturbance. These effects would result in a significant impact because they could cause large areas of foraging or nesting habitat loss and impact a substantial number of individuals or a population of special-status species. SDG&E would implement APM AIR-1 and APM HYDRO-1 to control fugitive dust and erosion. SDG&E would implement APM HAZ-3 to reduce the risk of wildfires from construction. The impacts from invasive weed introduction would be significant following implementation of APMs because the APMs do not include measures to reduce the spread of noxious and invasive weeds. Mitigation Measure Biology-3 would reduce impacts from invasive weeds by requiring SDG&E to implement invasive weed controls such as equipment washing. Indirect impacts to special-status avian species would be less than significant with mitigation.

Direct and Indirect Effects to Critical Habitat

Critical habitat for coastal California gnatcatcher occurs adjacent to the southern terminus of the transmission corridor. Critical habitat would not be directly impacted by the project because it is located outside of the project area. Critical habitat could be indirectly impacted through introduction and proliferation of invasive nonnative plant species from adjacent disturbed project areas or loss of habitat from a construction induced wildfire, and temporary impacts associated with dust, sedimentation, and erosion during construction in adjacent project areas; these effects would be a significant impact if they cause the areas of critical habitat to decline in value and no longer support special-status species. SDG&E would implement APM AIR-1 and APM HYDRO-1 to control fugitive dust and erosion. SDG&E would implement APM HAZ-3 to reduce the risk of wildfires from construction. Indirect impacts to critical habitat from introduction of invasive weeds would be significant following implementation of APMs because the APMs do not include measures to reduce the spread of noxious and invasive weeds. Mitigation Measure Biology-3 requires SDG&E to implement invasive weed controls such as equipment washing to reduce the spread of noxious and invasive weeds. Impacts to critical habitat would be less than significant with mitigation.

4.4 BIOLOGICAL RESOURCES

Mitigation Measures: Biology-3 and Biology-6

Mitigation Measure Biology-6: This measure applies to all work areas in which any construction-related activities must be conducted during the nesting bird season (generally between February 15 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 according to the following provisions:

1. Nest surveys shall occur within 48 hours 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.
2. 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. A nest is no longer an “active nest” if abandoned by the adult birds or once nestlings or fledglings are no longer dependent on the nest”. Surveys shall include nests of protected species within vegetation identified for removal and/or pruning, and within a the following buffers of active work areas: 1-mile buffer for golden eagle, 0.5-mile buffer for Swainson’s hawk, 0.25-mile buffer for white-tailed kite and 500-foot buffer for other avian and raptor species.
3. Surveys shall be conducted during locally appropriate dates for nesting seasons; note that generally the season is between February 15 and August 31 but may be earlier or later depending on species, location, and weather conditions.
4. The surveys shall be conducted by a CPUC-approved qualified biologist.
5. Survey results shall be provided to CPUC prior to initiating construction activities.
6. Work areas within which 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 February 15 and August 31, but may be earlier or later depending on species, location, and weather conditions) raptor nests that are located within a 500-foot buffer from a work location and a 1-mile buffer for golden eagle and 0.5-mile buffer for Swainson’s hawk, shall be evaluated by a CPUC-approved qualified biologist to determine whether

4.4 BIOLOGICAL RESOURCES

the raptor nest is active. No trees with active raptor nests shall be removed during nesting season.

No additional measures shall be implemented if active nests are more than the following distances from the nearest work areas: (a) 1 mile for golden eagle, (b) 0.5 mile for Swainson's hawk, (c) 0.25 mile for white-tailed kite, (d) 500 feet for raptors, Coastal California gnatcatcher, and least bell's vireo, (e) 250 feet for passerine birds in open space areas, or (f) 150 feet for common (non-special-status) passerine birds in residential, commercial, and industrial areas. 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).

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-approved qualified biologist that implementation of a specified smaller buffer distance will still avoid nest abandonment and failure. Requests to reduce standard buffers must be submitted to CPUC's independent biologist 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
- Size and expected duration of proposed buffer reduction
- Reason for the buffer reduction
- Name and contact information of the CPUC-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

CPUC's independent biologist shall respond to SDG&E's request for a buffer reduction (and buffer reduction terms) within 2 business days; if a response is not received, SDG&E may proceed with the buffer reduction until CPUC's independent biologist can review and approve or deny the buffer reduction request. If SDG&E proceeds with a reduced buffer, nests shall be monitored on a daily basis during construction activities. If the buffer reduction request is denied, or if the qualified biologist determines that the nesting bird(s) are not tolerant of project activity, the buffer outlined above in this measure shall be implemented.

4.4 BIOLOGICAL RESOURCES

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-approved qualified 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 on a daily basis and only during construction activities (no monitoring required over weekends or periods when no work is conducted) by a qualified biologist until the qualified biologist has determined that the young have fledged or construction ends within the work area (whichever occurs first). If the qualified biologist determines that the nesting bird(s) are not tolerant of project activity, the buffer outlined above in this measure shall be implemented.

The recommended buffers may only be reduced again following the same process, as identified above, and after the qualified biologist has determined that the nesting birds are no longer exhibiting signs of intolerance to construction activities.

Monitoring and Reporting. All nests with a reduced buffer shall be monitored on a daily basis during construction activities by a CPUC-approved 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 [GIS]) for all nests identified. This information shall be maintained in a database and shall be provided to CPUC, CDFW, and USFWS. A monthly written report shall be submitted to CPUC, CDFW, and USFWS for construction within a reduced buffer and shall include the following: information included in buffer reduction requests, work conducted within the work site, duration of work activities and related buffer reduction, information on nest success (eggs, young, and adults). No avian reporting shall be required for construction occurring outside of the nesting season and if construction activities do not occur within a reduced buffer during any calendar month. A final report shall be submitted to CPUC, 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, are likely acclimated to disturbance and do not need to be monitored, as determined by the CPUC-approved qualified biologist and approved by CPUC's independent biologist.

Significance After Mitigation: Less than significant.

4.4 BIOLOGICAL RESOURCES

Impact Bio-5: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any mammalian species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS (Less than significant with mitigation)

Direct Effects to Special-Status Mammals

San Diego Black-tailed Jackrabbit

San Diego black-tailed jackrabbit were observed during project surveys in the proposed substation site and north end of the transmission corridor (AECOM 2013e). Project construction could result in injury or mortality of San Diego black-tailed jackrabbit if a San Diego black-tailed jackrabbit were to enter the active work area. This impact would be significant if a large number of San Diego black-tailed jackrabbit were to be injured or killed as a result of the project. San Diego black-tailed jackrabbit is a covered species under SDG&E's NCCP. SDG&E's NCCP protocols include restricting vehicles to existing roads, when feasible, avoiding wildlife to the extent practicable, conducting preconstruction surveys, and biological monitoring during construction. APM BIO-3 requires covering of pole excavation work areas to avoid species entrapment regardless of whether or not the species is detected. Implementation of the protocols in the NCCP (APM BIO-2) and APM BIO-3 would minimize or avoid impacts to San Diego black-tailed jackrabbit.

Impacts to San Diego black-tailed jackrabbit could still be significant after implementation of APMs because the NCCP is undergoing an amendment process by SDG&E, CDFW, and USFWS, and APM BIO-2 may not apply to the project at the time of construction. Mitigation Measure Biology-1 requires restricting vehicles to existing roads, when feasible, avoiding wildlife to the extent practicable, conducting preconstruction surveys, biological monitoring during construction, and compensatory mitigation. Impacts would be less than significant with mitigation.

Suitable habitat for San Diego black-tailed jackrabbit occurs within the grassland and Diegan coastal sage scrub habitats in the proposed substation site and transmission corridor. Project construction would result in temporary and permanent impacts to suitable habitat areas. This impact would be less than significant due to the small impacts to suitable habitat and presence of large suitable habitat in the areas surrounding the project. No mitigation is required.

Southern Mule Deer

A southern mule deer was observed in the vicinity of the north end of the transmission corridor during project surveys (AECOM 2013e). It is unlikely that construction vehicles or equipment would directly impact individual southern mule deer because southern mule deer are easy to spot and could be avoided by the construction vehicles and equipment. Impacts to individuals would therefore be avoided or less than significant.

Suitable habitat for southern mule deer occurs within the grassland and Diegan coastal sage scrub habitats in the proposed substation site and transmission corridor. Project construction would result in temporary and permanent impacts to suitable habitat areas. These effects would

4.4 BIOLOGICAL RESOURCES

be less than significant due to the presence of large suitable habitat areas surrounding the project. No mitigation is required.

American Badger

American badger were not detected during project surveys (AECOM 2013e). Project construction would result in construction equipment or vehicle collisions with American badger or destruction of dens if any occur within the area of equipment activity and vehicle travel. These impacts could cause mortality of American badger, which would be a significant impact. This significance threshold is consistent with Fish and Game Code sections that protect American badger and other furbearing mammals. American badger is a covered species under SDG&E's NCCP. The protocols of SDG&E's NCCP (APM BIO-2) include restricting vehicles to existing roads, when feasible, conducting preconstruction surveys, and biological monitoring during construction. APM BIO-3 requires covering of pole hole work areas to avoid species entrapment. Implementation of the protocols in the NCCP (APM BIO-2) and APM BIO-3 would minimize or avoid impacts to American badger. Impacts to American badger could still be potentially significant after implementation of APMs because the NCCP is undergoing an amendment process by SDG&E, CDFW, and USFWS, and APM BIO-2 may not apply to the project at the time of construction. Mitigation Measure Biology-1 requires restricting vehicles to existing roads, when feasible, conducting preconstruction surveys, biological monitoring during construction, and compensatory mitigation for American badger habitat. Impacts would be less than significant with mitigation.

Grassland and scrub habitat in areas of friable soils provide suitable foraging and denning habitat for American badgers. Project construction would result in temporary and permanent impacts to suitable habitat areas. This impact to badger foraging and denning habitat would be less than significant due to the presence of suitable badger habitat surrounding the project area. No mitigation is required.

Western Yellow Bat

No western yellow bats were detected during surveys of the biological survey area (AECOM 2013e). Suitable foraging habitat for western yellow bat occurs within wetland areas south of the transmission corridor. Suitable roosting habitat is present within the transmission corridor and includes willows and palm trees. Construction of TL 6965 involves removal of two fan palms, which provide suitable roosting habitat for western yellow bat. Tree removal and construction noise would cause a significant impact on western yellow bat if a roost was located in the removed trees or near work areas. Mitigation Measure Biology-1 requires worker training to avoid western yellow bat. Mitigation Measure Biology-7 requires preconstruction surveys for western yellow bat for work activities to be conducted near suitable roosting habitat and establishment of exclusion buffers from active roosts. Impacts to western yellow bat would be less than significant with mitigation.

San Diego Desert Woodrat

San Diego desert woodrat were not detected during project surveys (AECOM 2013e). San Diego desert woodrats could occur in or near work areas within coastal sage scrub and grassland

4.4 BIOLOGICAL RESOURCES

habitats. Project grading and excavation activities would impact woodrat houses (nests) if they were to occur within the work area. A significant impact would occur if the project were to result in the mortality of a large number San Diego desert woodrats. Destruction of occupied woodrat houses, with or without associated mortality of individuals would not be a significant impact due to the relative abundance of this species. Mitigation Measure Biology-1 requires worker training to avoid San Diego desert woodrat. Mitigation Measure Biology-8 would be implemented to reduce or avoid impacts to San Diego desert woodrats. Mitigation Measure Biology-8 prescribes ways to reduce mortality associated with destruction of occupied houses, and supports reestablishment of woodrat houses. Impacts would be less than significant with mitigation.

Diegan coastal sage scrub habitat within the transmission corridor provides suitable habitat for San Diego desert woodrat. Construction would result in temporary impacts to 0.73 acres and permanent impacts to 1.32 acres of Diegan coastal sage scrub. This impact would be less than significant due to the presence of large suitable habitat areas surrounding the project. While less than significant, SDG&E would restore temporarily impacted habitat per APM BIO-4. SDG&E's NCCP (APM BIO-2) also includes habitat mitigation to offset the loss of suitable coastal sage scrub habitat. Habitat loss impacts would therefore be less than significant, and no mitigation is required.

Indirect Effects to Special-Status Mammals

Project construction would indirectly impact habitat for special-status mammals through introduction and proliferation of invasive nonnative plant species, construction induced wildfires, and dust, sedimentation, and erosion from construction ground disturbance. These effects would result in a significant impact if a large number of individuals or a population of special-status species were killed or injured. Loss of large areas of habitat would also be a significant impact. SDG&E would implement APM AIR-1 and APM HYDRO-1 to control fugitive dust and erosion. SDG&E would implement APM HAZ-3 to reduce the risk of wildfires. SDG&E would also implement APM BIO-4 to restore temporarily disturbed areas to reduce dust and erosion. The impacts from invasive weed introduction would remain significant following implementation of APMs. Mitigation Measure Biology-3 would reduce impacts from invasive weeds by requiring SDG&E to implement invasive weed controls such as equipment washing. Indirect impacts to special-status mammals would be less than significant with mitigation.

Mitigation Measures: Biology-1, Biology-3, Biology-7, and Biology-8

Mitigation Measure Biology-7: The following requirements specify protocols for surveying bay habitat and avoiding impacts on bats.

Work Areas. Suitable bat habitat shall be assessed by a CPUC-approved qualified biologist in trees within a 50-foot buffer of active work areas and in structures with suitable bat habitat within a 100-foot buffer of active work areas. If an active roost is found in a tree or structure, the CPUC-approved qualified biologist shall define an appropriate limited or no-work exclusion area surrounding the roosting habitat based

4.4 BIOLOGICAL RESOURCES

on the bat species, numbers, and roost type (i.e., individuals, small group, or potential maternal colony), as well as in consideration of the habitat quality and duration of work-related disturbance. The limited work or exclusion areas shall be approved by CPUC's independent biologist who shall respond to SDG&E's request for approval within one business day; if a response is not received, SDG&E may proceed with the implementation of the proposed limited work or exclusion area until CPUC's independent biologist can review and approve or deny the buffer reduction request.

The limited work or exclusion area 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) and shall not apply if the roost(s) is/are located in a residential, commercial, or industrial area.

The boundaries of the limited or no work area shall be clearly marked by the CPUC-approved qualified biologist to ensure that no vehicles or equipment physically disturb the roost. The CPUC-approved qualified biologist shall inspect roost sites when construction is occurring at the specific work site to ensure integrity of the limited or no-work area and ensure that the size of the area is adequate based on site conditions and construction-generated noise.

Tree Pruning and Removal. Preconstruction habitat assessments shall be conducted by a CPUC-approved qualified biologist on all trees to be removed that are 10 inches or more in diameter at breast height to identify suitable roosting habitat, within 7 days of the tree removal date.

For trees to be removed that provide suitable roosting habitat features, follow-up emergence surveys and acoustic monitoring shall be conducted for 1/2 hour prior to sunset and 1 hour after sunset. If bats are not detected emerging from trees and acoustic activity indicates that no roosting bats are present, no additional measures are required.

If bats are detected emerging from trees or acoustic activity indicates that roosting bats are present, the potential presence of a maternal colony shall be assessed. If a maternal colony is found in a tree, no work shall occur within 50 feet of the tree.

Suitable roost trees shall be removed, to the extent practicable, outside of April to September to avoid impacts to reproductive bats. If vegetation removal activities are conducted during the bat reproductive season the following techniques shall be implemented to passively vacate bats from roosts:

- Create noise and vibration disturbance on the tree (e.g., concussive hitting with equipment and/or chainsaw cutting) for at least 15 minutes before carefully opening up potential crevices and cavities for inspection and clearance.
- If bats may be in a tree hole or heavy branch cavity, attempt to expose them and allow escape. For example, if the cavity cannot be investigated by the CPUC-approved qualified biologist, then carefully cut successive sections

4.4 BIOLOGICAL RESOURCES

above the cavity to open it, waiting up to 10 minutes in between each cut, and determine if it is empty or allow any bats inside to crawl or fly out.

Reporting. All bat roosts in trees shall be documented and reported through the MMCRP.

Mitigation Measure Biology-8: A CPUC-approved qualified biologist shall conduct a preconstruction survey to identify potential San Diego desert woodrat houses within the proposed project work areas and within 5 feet of the edge of the work areas to avoid direct take of woodrats. All woodrat houses shall be documented and reported through the MMCRP. Woodrat houses found within the work site or within 5 feet from a work site shall be flagged or fenced for avoidance. If impacts to a woodrat house located within a work site are unavoidable, a CPUC-approved qualified biologist, prior to construction and outside of breeding season (April through June), shall dismantle the house by hand, removing the materials layer by layer to allow for adult woodrats to escape. If young are present and found during the disassembling process, a CPUC-approved qualified biologist shall leave the site for at least 24 hours to allow for the rats to relocate their young on their own. This step shall be repeated as needed until the young have been relocated by the parent woodrats. Once the nest is vacant, the disassembly process shall be completed and the nest sticks shall be collected and moved to another suitable nearby location to allow for nest reconstruction. Piles of cut vegetation/slash shall be retained near the work site prior to nest dismantling to provide refuge for woodrats that may become displaced.

Significance After Mitigation: Less than significant.

Impact Bio 6: Potential for substantial adverse effect from project operation and maintenance, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS (Less than significant with mitigation)

Proposed Substation

Future operation and maintenance activities at the proposed substation would occur within the areas enclosed within the substation perimeter wall (10- to 12-foot high masonry wall). These activities would occur on areas paved and covered by gravel. As a result, impacts to special-status plant and wildlife species from operation and maintenance of the proposed substation would not occur. The proposed aesthetic mitigation requires implementation of a landscape concept plan outside of the walled substation property. The landscaping would be maintained until the landscaping has met the project success criteria including standards for noxious weeds in Mitigation Measure Biology-3. SDG&E may apply the following herbicides during landscape maintenance:

- Garlon 4 Ultra
- Dupont Landmark XP
- Dow AgroSciences Milestone VM Herbicide
- Portfolio 4F CA

4.4 BIOLOGICAL RESOURCES

- Rodeo Herbicide
- Roundup Weed and Grass Killer
- SPRAKIL SK26 Granular Weed Killer

There is the potential for herbicide drift as a result of herbicide use. Herbicide drift could have a significant impact on special-status plant and wildlife species. SDG&E would implement Mitigation Measure Biology-9 to reduce the potential for herbicide drift. Impacts to special-status species from substation operation would be less than significant with mitigation.

TL 6965

Inspection activities for TL 6965 would be identical in location, frequency, and duration to the existing operation and maintenance activities for TL 23041/23042 and TL 6910. The lines in the transmission corridor will continue to be inspected annually by helicopter and by ground patrols every three years. Routine inspection would have no impact on special-status species. Maintenance of TL 6965 would involve repairs of equipment within areas that would be disturbed by construction including pole work areas; however, there is the potential that special-status wildlife species could enter a maintenance work area and be injured or killed during maintenance of the power line. Potential injury or mortality to special-status species could occur during vegetation trimming and herbicide application in pole work areas, which would result in a significant impact.

SDG&E would implement all measures in their NCCP (APM BIO-2) during maintenance activities on TL 6965, including restricting travel on existing access roads, conducting pre-activity surveys, conducting biological monitoring, restricting brush clearance during the nesting season, and transplanting special-status plant species that are found within a 10 foot radius around power poles. Impacts to special-status species would still be significant, even after implementation of APM BIO-2 because the NCCP is undergoing an amendment process by SDG&E, CDFW, and USFWS, and APM BIO-2 may not apply to the project at the time of construction. In addition, vegetation management activities and implementation of Mitigation Measure Biology-3 could result in herbicide drift, which would have a significant impact on special-status plants or wildlife nearby. Mitigation Measures Biology-1 and Biology-9 would reduce operation and maintenance impacts on special-status species. Mitigation Measure Biology-1 would restrict travel on existing access roads, pre-activity surveys, and biological monitoring during maintenance activities on TL 6965. Mitigation Measure Biology-9 specifies controls to reduce herbicide drift. Impacts to special-status plants and wildlife from operation and maintenance would be less than significant with mitigation.

There is a potential for impacts to individual birds from collision with and/or electrocution on the new TL 6965 or related structures. Bird collisions can occur with transmission towers or lines, especially in spring migration when strong winds and storms are more likely to force birds to fly at relatively low altitudes. Most of this migration takes place at night. Electrocution occurs when a perching bird (typically large aerial perching birds such as hawks and eagles) simultaneously contacts two energized phase conductors or an energized conductor and grounded hardware. Power lines that are energized at voltage levels less than 69-kV cause the majority of raptor electrocutions (APLIC 2006; Manville II 2005).

4.4 BIOLOGICAL RESOURCES

TL 6965 would be routed within a transmission corridor already supporting three transmission circuits. The project could potentially cause an increase in bird mortality from electrocution on the TL 6965 energized line or structures, which would be a significant impact if special-status bird species were electrocuted from the TL 6965 power line. SDG&E's NCCP includes measures to reduce raptor electrocution from new power lines, specifically use of bird-be-gone or sticky solution (Sec 3.1 VIII). Impacts could still be significant with the NCCP measures because improved methods to reduce electrocution were adopted by the Avian Power Line Interaction Committee (APLIC) in 2006. In addition, the NCCP operational protocols may not apply to the project at the time of construction because the NCCP is undergoing an amendment process. Mitigation Measure Biology-10 requires adherence with current APLIC guidelines to reduce potential bird electrocution impacts to a less-than-significant level. Impacts would be less than significant with mitigation.

Miguel Substation Modifications

Operation and maintenance activities at Miguel Substation would occur within the fenced-in portion of the substation, on areas paved or covered by gravel in the interior of the substation yard. As a result, there would be no impact to special-status species from operation and maintenance of the Miguel Substation modifications.

Mitigation Measures: Biology-1, Biology-9, and Biology-10

Mitigation Measure Biology-9: Only a State of California certified contractor (i.e., Qualified Applicator), will be permitted to perform herbicide applications. Herbicides will be applied in accordance with applicable laws, regulations, and permit stipulations. All herbicide applications must follow EPA label instructions. SDG&E shall only apply herbicides when wind speeds are between 3 and 10 mph. No herbicides shall be applied when rainfall is predicted within 48 hours or during periods of temperature inversions (i.e., when the air temperature at ground level is cooler than the air above it). Herbicides shall not be applied within 100 feet of a special-status plant.

Mitigation Measure Biology-10: The applicant shall design and construct its facilities in compliance with Avian Power Line Interaction Committee's *Suggested Practices for Avian Protection on Power Lines* to reduce potential electrocution impacts to avian species.

Significance after Mitigation: Less than significant.

Impact Bio-7: Potential to cause a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS (Less than significant with mitigation)

Construction

Direct Impacts

Proposed Substation. Construction of the proposed substation, improvement of the access road to Hunte Parkway, and installation of a drainageway to an existing off-site dissipater would result in direct temporary and permanent impacts to sensitive vegetation communities

4.4 BIOLOGICAL RESOURCES

including Diegan coastal sage scrub and nonnative grassland, as shown in Table 4.4-8. These vegetation communities provide habitat for special-status species including SDG&E NCCP Covered Species. No Preserve areas are located within the proposed substation area. As a result, no impacts to Preserve areas would occur during construction of the proposed substation. SDG&E purchased compensatory mitigation at a 1:1.188 ratio through the City of Chula Vista MSCP when they purchased the substation property. The impacts to sensitive habitats within the proposed substation site would be less than significant because SDG&E has already completed compensatory mitigation for these habitats. No mitigation is required.

TL 6965. Construction activities in the transmission corridor would result in direct temporary and permanent impacts to sensitive vegetation communities, including Diegan coastal sage scrub and nonnative grassland, as shown in Table 4.4-8. SDG&E has defined project work areas to avoid impacts to herbaceous wetland and riparian scrub habitats. The northern section of the transmission corridor (north of Mountain Miguel Road, excluding structures 35 and 34 and guard structure 1) is located within an SDG&E NCCP Preserve Area; the remainder of the transmission corridor is located outside of defined Preserve boundaries. The temporary and permanent impacts to Diegan coastal sage scrub and nonnative grassland would result in a significant impact. SDG&E would implement the compensatory mitigation requirements in the NCCP (APM BIO-2) for mitigation of Diegan coastal sage scrub and nonnative grassland habitats. The NCCP requires mitigation at a 2:1 ratio for sensitive habitats within a Preserve area and at a 1:1 ratio for habitats outside of a Preserve. SDG&E would also restore temporarily impacted habitats as required by APM BIO-4. Impacts would remain significant even after implementation of APMs because the NCCP is undergoing an amendment process by SDG&E, CDFW, and USFWS, and APM BIO-2 may not apply to the project at the time of construction. In addition, the restoration of temporarily impacted areas may not be successful. There would be a significant impact to vegetation if the restoration in areas of temporary impacts is not successful. Under the NCCP, SDG&E must meet success criteria for revegetation after two years. If the success criteria are not met after two years, a deduction is made from SDG&E's mitigation credits and no additional restoration activities would be performed on-site. If the temporarily impacted areas are not restored to original conditions, invasive species could proliferate in the area which would cause a significant impact to sensitive natural communities. Mitigation Measure Biology-11 requires preparation and implementation of a Restoration and Revegetation Plan for temporary impacts including monitoring to ensure that the areas of temporary impacts are properly restored. Direct impacts to sensitive habitats would be less than significant with mitigation.

Miguel Substation Modifications. Miguel Substation is a developed area consisting of paved and gravel-covered land. No direct, permanent, or temporary impacts to sensitive vegetation communities or Preserve areas would result from substation modifications.

Staging Yards. The Hunte Parkway staging yard consists of a previously graded area that has been recolonized by nonnative grassland species. The Miguel Substation staging yard consists entirely of gravel-covered land, and no direct impacts to vegetation communities would occur. The Eastlake Parkway staging yard and OTC alternative staging yards consist entirely of

4.4 BIOLOGICAL RESOURCES

disturbed habitat and urban/developed land. Use of these areas for staging would have minimal impacts on vegetation of any kind due to the limited vegetation in the area. Impacts from material staging and storage within the staging yards would be less than significant. No mitigation is required.

Indirect Impacts

Temporary and permanent indirect impacts to sensitive vegetation communities, critical habitat, and Preserve areas would occur as a result of construction. Sensitive vegetation communities including riparian habitats are located south and west of the proposed substation, and Preserve areas are located east of the proposed substation and transmission corridor. Grading activities could create airborne dust, sedimentation, and erosion and potentially lead to the degradation of sensitive vegetation communities adjacent to the project. The potential spread of exotic species into the surrounding sensitive vegetation communities is considered a permanent, indirect impact. Exotic species are opportunistic and could occupy disturbed soils within disturbed areas and spread into adjacent vegetation communities. Additionally, wildfires caused by construction are rare but do occur, and exotic species often invade and spread in burned areas following a wildfire. Once introduced, exotic species often compete with sensitive native vegetation for resources, resulting in a reduction in growth, dispersal, and recruitment of native species, and the eventual degradation of the vegetation community. Wildfires can also result in large scale habitat loss and can cause native habitats to be replaced with nonnative habitats. These effects would result in a significant impact. SDG&E would implement APM HAZ-3 for wildland fire prevention and APM HYDRO-1 for erosion and sedimentation control to reduce indirect impacts to sensitive vegetation communities. Even with implementation of these APMs, impacts from noxious weeds would be significant. Implementation of Mitigation Measure Biology-3 for noxious weed control would reduce indirect impacts to sensitive habitats from exotic species. Significant impacts from sedimentation to riparian areas could result if the slope stabilization and revegetation at the substation site were not successful. Mitigation Measure Aesthetics-1 specifies success criteria for the substation landscaping, which would reduce impacts to downstream riparian areas. Indirect impacts to sensitive vegetation communities from the construction of the proposed substation would be less than significant with mitigation.

Operation and Maintenance

Proposed Substation and Miguel Substation Modifications

Future operation and maintenance activities at the proposed substation and Miguel Substation would occur within the fenced-in or walled-in portion of the substation sites on areas that would be paved, covered by gravel, or landscaped. As a result, impacts to sensitive vegetation communities during operation and maintenance of the two substations would not occur.

TL 6965

Future operation activities of the TL 6965 power line would be similar in scope to the existing operation activities for the adjacent TL 6910 and TL 23041/23042 power lines. No work would be conducted outside of the access roads and work areas that would be disturbed during

4.4 BIOLOGICAL RESOURCES

construction. There would be no direct impacts to sensitive vegetation communities from operation and maintenance of TL 6965.

Vegetation maintenance activities on TL 6965 including herbicide use could indirectly impact sensitive vegetation communities and result in a significant impact. Mitigation Measure Biology-9 requires SDG&E to implement controls to prevent herbicide drift. Impacts to sensitive vegetation communities from operation and maintenance of TL 6965 would be less than significant with mitigation.

Mitigation Measures: Biology-3, Biology-9, Biology-11, and Aesthetics-1

Mitigation Measure Biology-11: The Applicant shall prepare and implement a Restoration and Revegetation Plan for restoration and revegetation of temporarily disturbed areas. The Restoration and Revegetation Plan shall be prepared by a biologist with expertise in southern California ecosystems and native plant revegetation techniques. The Restoration and Revegetation Plan will include the following information:

- a. The location(s) of the area(s) of restoration and revegetation
- b. The plant species to be used (natives only), container sizes, and seeding rates in each area
- c. The planting schedule for each restoration area
- d. A description of the irrigation method(s)
- e. Measures to control exotic vegetation in the restoration and revegetation area
- f. Specific success criteria including at a minimum:
 - i. 70 percent cover of the restoration area
 - ii. Less than 5 percent invasive weeds
- g. Detailed monitoring program that includes monitoring for a minimum of three years and until success criteria are met
- h. Contingency measures should the success criteria not be met

The Applicant shall submit the Restoration and Revegetation Plan to the CPUC for review and approval at least 60 days prior to construction.

Significance after Mitigation: Less than significant.

4.4 BIOLOGICAL RESOURCES

Impact Bio-8: Potential to cause a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Less than significant with mitigation)

Construction

Direct Impacts

Proposed Substation. The natural hydrology of the proposed substation site was previously disturbed by the construction of the existing sewer access road and installation of the sewer and water lines. The slopes of the site have been re-contoured and access roads with associated brow ditches have been constructed. A tributary to Salt Creek is located immediately west of the site. The tributary enters from the north through a 96-inch-diameter culvert, flows south, and connects to Salt Creek. Both the tributary and Salt Creek contain riparian scrub habitat and are considered jurisdictional wetlands and streambed. There are no jurisdictional wetlands present within the proposed substation site, and all proposed ground-disturbing activities and structures would be located outside of jurisdictional waters and wetlands (Bradford 2013; Fisher 2013). No direct impacts to jurisdictional waters would occur from substation construction.

TL 6965. Construction activities associated with the proposed power line in the transmission corridor have been designed to avoid direct impacts to federally protected wetlands/waters. Potential ground-disturbing activities associated with the TL 6965 power line, structures, and stringing sites would be located away from potential jurisdictional waters and wetlands. Temporary access roads cross drainages, and driving through drainages during or following a rain even when soils are moist could result in impacts to federally protected wetlands/waters. Such activities would result in hydrologic modification and cause a substantial adverse effect on federally jurisdictional waters; this impact would be a significant. Implementation of Mitigation Measure Hydro-1 (see Section 4.9: Hydrology and Water Quality) would reduce direct impacts to federally protected wetlands/waters to a less than significant level through the inclusion of temporary bridge crossings and regulatory agency coordination when access in the rainy season is required. Direct impacts to federally jurisdictional wetlands would be less than significant with mitigation.

Miguel Substation Modifications. No potential federally protected wetlands/ waters are present in the Miguel Substation work area. Impacts to jurisdictional wetlands/waters during modification to Miguel Substation would not occur.

Staging Yards. No potential federally protected wetlands/waters are present in the Miguel Substation staging yard, Hunte Parkway staging yard, Eastlake Parkway staging yard, or OTC alternative staging yards. Impacts to federally protected wetlands/ waters during use of these staging yards would not occur.

Indirect Impacts

Indirect impacts to federally protected wetlands/waters may occur as a result of construction-related activities. Grading activities could potentially cause sedimentation and erosion and lead to discharge of earthen material to nearby wetlands. Additionally, wildfires caused by

4.4 BIOLOGICAL RESOURCES

construction are rare but do occur, and exotic species often invade and spread in burned areas including wetlands following a wildfire. These effects would result in a significant impact because exotic weeds could cause wetland areas to be converted to uplands or cause substantial degradation of the habitat value of the wetlands. SDG&E would reduce indirect impacts to federally jurisdictional waters through implementation of APM HYDRO-1, which requires SDG&E to implement erosion and sediment control measures. SDG&E has proposed the construction of a water quality infiltration basin as part of the project to reduce impacts to post-construction drainage and water quality. The drainage control basin is proposed within the substation site. It would reduce sediment discharge and control runoff to downstream areas including erosion and sedimentation to wetlands. Impacts from invasive weed introduction to wetlands would be a significant impact with APMs. Mitigation Measure Biology-3 would reduce this impact by requiring invasive weed control during construction. Significant impacts to jurisdictional waters could result if the slope stabilization and revegetation at the substation site were not successful. Mitigation Measure Aesthetics-1 specifies success criteria for the substation landscaping, which would reduce impacts to downstream wetlands and waters. Impacts would be less than significant with mitigation.

Operation and Maintenance

Future operation and maintenance activities would not directly impact federally protected wetlands/waters because permanent structures at the proposed substation site and in the TL 6965 transmission corridor would be located away from wetlands/waters. Operation and maintenance of TL 6965 would be similar to existing operation and maintenance activities within the transmission corridor and would not result in additional impacts.

Operation of the proposed substation facility could result in potential indirect impacts and discharge to federally protected wetlands/waters as a result of increased runoff and erosion post-construction. This impact would be significant. SDG&E has proposed implementation of a water quality improvement basin to reduce post-construction runoff and sedimentation to wetlands located downstream of the substation. The project must also implement erosion and sediment control BMPs as defined in APM HYDRO-1 to reduce runoff and sedimentation to downstream wetlands. Impacts would be less than significant with implementation of APM HYDRO-1, and no additional mitigation is required.

Mitigation Measures: Biology-3, Aesthetics-1, and Hydro-1

Significance after Mitigation: Less than significant.

Impact Bio-9: Potential to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (*Less than significant; no mitigation required*)

Construction

Significant impacts would occur if a wildlife movement corridor is interrupted by a feature that physically blocks wildlife movement (i.e., roadway) or if habitat suitable to support wildlife in

4.4 BIOLOGICAL RESOURCES

the movement corridor is directly removed during construction. No native wildlife nursery sites exist within the project biological survey area.

The project would not result in direct impacts to wildlife movement or migratory corridors. There are no known wildlife movement corridors within the proposed substation site, transmission corridor, Miguel Substation, or temporary work areas. The proposed substation is not a linear feature and would not block wildlife movement. Wildlife species would be able to move around the substation site during construction of the project. There would be no impact.

TL 6965 is a linear feature; however, it is located within an existing utility corridor surrounded by other underground and aboveground transmission lines and urban development. Wildlife within the transmission corridor could move along the corridor; however, the corridor is currently intersected by high-traffic roadways and highway that reduce use of the transmission corridor for wildlife movement or migration. Wildlife may move around the work areas as construction progresses. The transmission corridor is 120 feet wide, and the work areas would be no more than 30 feet wide to not conflict with the other power lines or utilities in the corridor. The addition of TL 6965 would not interfere substantially with wildlife movement, if movement occurs in the corridor, because the power line would occur above the ground and will not form a barrier to wildlife movement. Impacts to wildlife movement from TL 6965 would be less than significant.

Miguel Substation and temporary work areas are not linear features and these elements would not interfere substantially with wildlife movement. Project elements would be installed inside fenced areas that are not accessible by wildlife. There would be no impacts to wildlife movement corridors.

Operation and Maintenance

The proposed substation, TL 6965 transmission corridor, Miguel Substation, and temporary work areas and staging yards do not function as native wildlife movement corridors; therefore, no impacts to a native wildlife corridor would occur during project operation and maintenance.

Mitigation Measures: None required.

Impact Bio-10: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (No impact)

The City protects native habitats and species under Municipal Code Title 17.35. Title 17.35 defines protections for Preserve areas consistent with the Chula Vista MSCP Subarea Plan. The project would not conflict with the City regulations for protection of native habitats and species because the project will not impact City Preserve areas. SDG&E also purchased mitigation for the proposed substation site in the City of Chula Vista's Preserve consistent with the City of Chula Vista MSCP. Construction, and operation and maintenance of the proposed project would therefore not conflict with any local environmental policies or ordinances for protection of biological resources. No mitigation is required.

4.4 BIOLOGICAL RESOURCES

Mitigation Measures: None required.

Impact Bio-11: Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan (No impact)

The proposed project is within the SDG&E Subregional NCCP area. The SDG&E NCCP addresses potential impacts to sensitive resources associated with SDG&E's ongoing installation, use, maintenance, and repair of its gas and electric systems and typical expansion to those systems throughout SDG&E's existing service area. The SDG&E NCCP includes mitigation measures and Operational Protocols designed to avoid and/or minimize impacts on biological resources and to provide appropriate mitigation where impacts are unavoidable to ensure the protection and conservation of Covered Species. The NCCP Operational Protocols would be applied to the proposed project to avoid and/or minimize potential impacts resulting from proposed project implementation. SDG&E would follow the habitat enhancement and reclamation measures described within the NCCP for consistency with the NCCP and to ensure that proposed project impacts on biological resources remain less than significant. The CPUC has prescribed mitigation measures that parallel the NCCP requirements in the event the NCCP cannot be relied on for mitigation. These measures were designed to be consistent with the NCCP.

Specific biological resource mitigation measure requirements may be satisfied through compliance with NCCPs or HCPs obtained by SDG&E if these requirements are equally or more effective than the mitigation identified in this EIR. SDG&E shall provide the CPUC with copies of permits or other authorizations including any HCPs or NCCPs applicable to the project and may be required to provide additional information to show that compliance with permitting conditions will be equally or more effective as mitigation for impacts to biological resources. The CPUC shall have sole discretion to determine whether compliance with permit conditions will also satisfy the performance standards or requirements identified in mitigation measures in this EIR. If the CPUC determines that compliance with permit conditions will also satisfy the mitigation measures in this EIR, SDG&E shall submit reports to the CPUC documenting compliance consistent with the reporting requirements of the equivalent mitigation measure or measures.

Portions of the project fall within the City of Chula Vista's MSCP area. Section 6.3.3.3 of the City of Chula Vista's MSCP states that SDG&E substation projects and associated facilities are not covered by the City of Chula Vista's MSCP, and instead would be covered by the SDG&E NCCP. The proposed project would not conflict with the provisions of the City of Chula Vista adopted MSCP. There would be no impact.

Mitigation Measures: None required.

4.4 BIOLOGICAL RESOURCES

4.4.6 Project Alternatives

Table 4.4-10 provides a summary of the potential impacts to biological resources from the project alternatives.

Table 4.4-10 Summary of Impacts from Alternatives by Significance Criteria

Significance Criteria	No Project Alternative	Alternative 1	Alternative 2	Alternative 3
Impact Bio-1: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	No impact	Less than significant with mitigation APM AIR-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-2 MM Biology-3	Less than significant with mitigation APM AIR-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-2 MM Biology-3	Less than significant with mitigation APM AIR-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-2 MM Biology-3
Impact Bio-2: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any invertebrate species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	No impact	Less than significant with mitigation APM AIR-1 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-3	Less than significant with mitigation APM AIR-1 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-3	Less than significant with mitigation APM AIR-1 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-3
Impact Bio-3: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any reptile species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	No impact	Less than significant APM AIR-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1	Less than significant APM AIR-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1	Less than significant APM AIR-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1
Impact Bio-4: Potential for substantial adverse effect from project construction, either directly or through habitat modifications, on any avian species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	Less than significant	Less than significant with mitigation APM AIR-1 APM BIO-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-3 MM Biology-6	Less than significant with mitigation APM AIR-1 APM BIO-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-3 MM Biology-6	Less than significant with mitigation APM AIR-1 APM BIO-1 APM BIO-2 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-3 MM Biology-6

4.4 BIOLOGICAL RESOURCES

Significance Criteria	No Project Alternative	Alternative 1	Alternative 2	Alternative 3
Impact Bio-5: Potential to have a substantial adverse effect from project construction, either directly or through habitat modifications, on any mammalian species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	No impact	Less than significant with mitigation APM AIR-1 APM BIO-2 APM BIO-3 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-3 MM Biology-7 MM Biology-8	Less than significant with mitigation APM AIR-1 APM BIO-2 APM BIO-3 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-3 MM Biology-7 MM Biology-8	Less than significant with mitigation APM AIR-1 APM BIO-2 APM BIO-3 APM BIO-4 APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-3 MM Biology-7 MM Biology-8
Impact Bio 6: Potential to have a substantial adverse effect from project operation and maintenance, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS	No impact	Less than significant with mitigation APM BIO-2 MM Biology-1 MM Biology-9 MM Biology-10	Less than significant with mitigation APM BIO-2 MM Biology-1 MM Biology-9 MM Biology-10	Less than significant with mitigation APM BIO-2 MM Biology-1 MM Biology-9 MM Biology-10
Impact Bio-7: Potential to cause a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS	No impact	Less than significant with mitigation APM HAZ-3 APM HYDRO-1 MM Biology-3 MM Biology-9 MM Aesthetics-1	Less than significant with mitigation APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-9 MMAesthetics-1	Less than significant with mitigation APM HAZ-3 APM HYDRO-1 MM Biology-1 MM Biology-9 MMAesthetics-1
Impact Bio-8: Potential to cause a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	No impact	Less than significant with mitigation APM HYDRO-1 MM Biology-3 MM Biology-9 MM Aesthetics-1	Less than significant with mitigation APM HYDRO-1 MM Biology-3 MM Biology-9 MM Aesthetics-1	Less than significant with mitigation APM HYDRO-1 MM Biology-3 MM Biology-9 MM Aesthetics-1
Impact Bio-9: Potential to 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	No impact	No impact	No impact	No impact
Impact Bio-10: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	No impact	No impact	No impact	No impact

4.4 BIOLOGICAL RESOURCES

Significance Criteria	No Project Alternative	Alternative 1	Alternative 2	Alternative 3
Impact Bio-11: Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan	No impact	No impact	No impact	No impact

Alternative 1: 230/12-kV Substation and 230-kV Loop-In

Environmental Setting

The 230/12-kV substation would be constructed within the same parcel as the proposed project substation. The environmental setting of the substation, distribution lines, and adjacent loop-in are described in Section 4.4.1. The habitat types and associated species within the Alternative 1 project area and buffer would be the same as the habitat types described for the proposed substation, Hunte Parkway staging yards, and OTC staging yards. The environmental setting for the TL 6965 power line would not apply to Alternative 1 because a new power line would not be constructed.

Environmental Impacts

Alternative 1 would have fewer overall impacts to biological resources than the proposed project because Alternative 1 does not include the construction of the TL 6965 power line. Impacts associated with the construction of TL 6965 would be avoided in Alternative 1. Impacts associated with the construction of the substation would be marginally larger for Alternative 1 because the construction timeframe would be approximately 6 to 12 months longer than the proposed project substation.

Construction of the 230/12-kV substation and 230-kV loop-in would result in temporary and permanent habitat modifications within the proposed substation pad and underground loop-in area. Temporary and permanent habitat impacts resulting from project construction are summarized in Table 4.4-11.

Special-status Species. Impacts to special-status species would be similar to those of the proposed project substation. Construction of the 230/12-kV substation Alternative 1 would have significant impacts on the same special-status plant and wildlife species as the proposed project, with the exception of Hermes copper butterfly. There is no suitable habitat for Hermes copper butterfly within the Alternative 1 project area; there would be no direct impacts to Hermes copper butterfly. Indirect impacts to Hermes copper butterfly from dust and sedimentation in suitable habitat would be less than significant. Construction for Alternative 1 would last 24 to 30 months, which is longer than the construction time frame for the proposed project (18 to 24 months). The longer construction timeframe would result in increased duration of potential disturbance to nesting birds around the substation site; however Alternative 1 would avoid disturbance of nesting birds and sensitive species within the 5-mile long transmission corridor.

Temporary and permanent habitat impacts associated with the construction and operation of Alternative 1 could result in significant direct impacts to special-status species, similar to the proposed project. SDG&E would implement APMs BIO-1, BIO-2, BIO-3, and BIO-4 to reduce

4.4 BIOLOGICAL RESOURCES

Table 4.4-11 Alternative 1 Impacts to Vegetation Communities

Vegetation Community	Disturbance Area (acres)		
	230/12-kV Substation	Staging Yards	Total
Permanent Impacts			
Unvegetated Channel and Concrete Brow Ditch	0.07	—	0.07
Diegan Coastal Sage Scrub	1.12	—	1.12
Native Grassland	1.59	—	1.59
Nonnative Grassland	5.50	—	5.50
Total Permanent Impacts	8.28	0.00	8.28
Temporary Impacts			
Unvegetated Channel and Concrete Brow Ditch	0.06	—	0.06
Diegan Coastal Sage Scrub	0.03	—	0.03
Nonnative Grassland	0.80	6.47	7.27
Total Temporary Impacts	0.89	6.47	7.36

direct impacts to special-status species. Construction noise and disturbance could result in significant indirect impacts to special-status species. APMs AIR-1, HAZ-3, and HYDRO-1 would be implemented to reduce indirect impacts to special-status species. Direct and indirect impacts to special-status species from construction noise, construction activity, invasive weeds, herbicide application, and electrocution would remain significant even with the application of APMs. Mitigation Measures Biology-1, Biology-2, Biology-3, Biology-6, Biology-7, Biology-8, and Biology-9 would be implemented to reduce the impacts to special-status species. Impacts to special-status species from Alternative 1 would be less than significant mitigation.

Sensitive Natural Communities. Impacts to sensitive natural communities from the construction of Alternative 1 are less than those of the proposed project. Alternative 1 would not have any of the direct or indirect impacts associated with construction of the TL 6965 power line. Impacts to sensitive natural communities would result from construction of the 230/12-kV substation and 230-kV loop-in. Impacts associated with the construction of Alternative 1 would be similar to the impacts for the construction of the proposed project substation; however, impacts from the construction of the 230/12-kV substation and 230-kV loop-in would be slightly smaller than impacts of the proposed project loop-in by approximately 0.4 acres because the 230-kV power line is located closer to the substation than the TL 6965 underground loop-in, requiring a shorter distance of new underground cable. Construction would result in direct temporary and permanent impacts to sensitive vegetation communities including Diegan coastal sage scrub and nonnative grassland, as shown in Table 4.4-11. SDG&E previously purchased compensatory mitigation credits through the City of Chula Vista Preserve for impacts to the entire substation parcel. The impacts to sensitive habitats within the Alternative 1 site would be less than significant because the 230/12-kV substation would be confined within SDG&E's parcel, and SDG&E has completed compensatory mitigation for impacts to these habitats. No additional mitigation is required.

4.4 BIOLOGICAL RESOURCES

Indirect impacts to sensitive vegetation communities, critical habitat, and Preserve areas would occur as a result of construction. These indirect impacts would include invasive weed introduction, sedimentation, and increased fire risk and would be similar to the indirect impacts of the construction of the proposed substation; however the 230/12-kV substation would require greater volumes of cut and fill with steeper slopes than the proposed project substation. Alternative 1 would therefore have a greater risk of run-off and sedimentation to downstream areas than the proposed project. Indirect impacts to sensitive vegetation communities would be significant. SDG&E would implement APM HAZ-3 for wildland fire prevention and APM HYDRO-1 for erosion and sedimentation control to reduce indirect impacts to sensitive vegetation communities. Even with implementation of these APMs, impacts from sedimentation and noxious weeds would be significant. Mitigation Measure Biology-3 would reduce indirect impacts to sensitive habitats from exotic species by requiring noxious weed control. Mitigation Measure Aesthetics-1 defines success criteria for the landscaping at the substation site and reduces the potential for invasion of weeds within the project area. Indirect impacts to sensitive vegetation communities from construction of the 230/12-kV substation and 230-kV loop-in would be less than significant with mitigation.

Jurisdictional Wetlands. Impacts to wetlands from the construction of Alternative 1 would be less than those of the proposed project. Alternative 1 would avoid the direct or indirect impacts to wetlands associated with the construction of the TL6965 power line. Alternative 1 would avoid direct impacts to jurisdictional wetlands because there are no jurisdictional wetlands or waters within the Alternative 1 project area. There are jurisdictional waters to the east and south of the substation property. Grading activities would cause sedimentation and erosion and lead to discharge of earthen material to nearby wetlands, resulting in a significant impact. APM HYDRO-1 would be implemented to reduce indirect impacts to wetlands. APM HYDRO-1 requires SDG&E to implement erosion and sediment control measures; however impacts would be significant post-construction if permanent restoration and BMPs were not properly implemented. Mitigation Measure Aesthetics-1 defines success criteria for the landscaping at the substation site. Impacts would be less than significant with mitigation.

Wildlife Movement Corridors. Impacts to wildlife movement corridors for Alternative 1 would be marginally less than the proposed project because Alternative 1 does not include a power line. Alternative 1 does not include any linear features that would impede wildlife movement. There are no known wildlife movement corridors within the proposed substation site; it is not a linear feature and would not block wildlife movement. Wildlife species would be able to move around the substation site during construction, and operation and maintenance of the project. There would be no impacts to wildlife movement corridors from Alternative 1.

Local, Regional, or State Habitat Conservation Plan. Alternative 1 would be completed under SDG&E's NCCP. The NCCP may be amended by SDG&E, CDFW, and USFWS prior to construction. The current NCCP or amended NCCP would apply to the project. Similar to the proposed project, there would be no conflicts with any adopted local, regional or state NCCP. There would be no impact.

4.4 BIOLOGICAL RESOURCES

Alternative 2: 69/12-kV Substation and Generation at Border and Larkspur Electric Generating Facilities

Environmental Setting

Alternative 2 would involve the construction of a 69/12-kV substation, distribution lines, and TL 6910 loop-in in the same manner as the proposed project. The existing biological resources conditions for the proposed substation and Hunte Parkway and OTC staging yards described in Section 4.4.1 would apply to this alternative. The environmental setting for the TL 6965 power line would not apply to Alternative 2 because a new power line would not be constructed.

Environmental Impacts

Alternative 2 would have lesser impacts to biological resources than the proposed project because Alternative 2 does not include the construction of the TL6965 power line. Impacts associated with the construction of a new power line would be avoided in Alternative 2. Impacts associated with the construction of the Alternative 2 substation would be similar to the construction of the proposed substation because the Alternative 2 substation would be constructed in the same location and configuration as the proposed project substation. Construction of the 69/12-kV substation, distribution lines, and TL 6910 loop-in would result in temporary and permanent habitat modifications within the proposed substation pad and underground loop-in area. Temporary and permanent habitat impacts resulting from project construction are summarized in Table 4.4-12.

Special-status Species. Potential significant impacts to critical habitat and special-status species would be the same as the impacts from the construction of the proposed project substation, with the exception of Hermes copper butterfly. There would be no direct impacts to Hermes copper butterfly under Alternative 2. Indirect impacts to Hermes copper butterfly from dust and sedimentation in suitable habitat would be less than significant. Impacts to the other species

Table 4.4-12 Alternatives 2 and 3 Impacts to Vegetation Communities

Vegetation Community	Disturbance Area (acres)		
	69/12-kV Substation	Staging Yards	Total
Permanent Impacts			
Unvegetated Channel and Concrete Brow Ditch	0.06	—	0.06
Diegan Coastal Sage Scrub	1.02	—	1.02
Native Grassland	1.59	—	1.59
Nonnative Grassland	5.54	—	5.44
Total Permanent Impacts	8.21	0.00	8.21
Temporary Impacts			
Unvegetated Channel and Concrete Brow Ditch	0.06	—	0.06
Diegan Coastal Sage Scrub	0.15	—	0.15
Nonnative Grassland	1.15	6.47	7.62
Total Temporary Impacts	1.36	6.47	7.83

4.4 BIOLOGICAL RESOURCES

would be significant. APMs AIR-1, BIO-2, BIO-3, BIO-4, HAZ-3, and HYDRO-1 would be applied to reduce impacts associated with temporary impacts to vegetation communities, fugitive dust, erosion, and wildfires. Direct and indirect impacts to special-status species from construction noise, construction activity, invasive weeds, herbicide application, and electrocution would remain significant after application of these APMs. Mitigation Measures Biology-1, Biology-2, Biology-3, Biology-6, Biology-7, Biology-8, and Biology-9 would be implemented to reduce the impacts to special-status species. Impacts to special-status species would be less than significant with mitigation.

Sensitive Natural Communities. Impacts to sensitive natural communities from construction of Alternative 2 are less than those of the proposed project. Alternative 2 would not have any of the direct or indirect impacts associated with the construction of the TL6965 power line. Impacts to sensitive natural communities would result from the construction of the 69/12-kV substation, distribution lines, and TL 6910 loop-in. Impacts associated with the construction of Alternative 2 would be the similar to the impacts for the construction of the proposed project substation. Construction would result in direct temporary and permanent impacts to sensitive vegetation communities including Diegan coastal sage scrub, native grassland, and nonnative grassland, as shown in Table 4.4-12. SDG&E has purchased compensatory mitigation credits through the City of Chula Vista Preserve for impacts to the entire substation parcel. The impacts to sensitive habitats within the Alternative 2 site would be less than significant because the 69/12-kV substation would be confined within SDG&E's parcel, and SDG&E has completed compensatory mitigation for impacts to these habitats.

Indirect impacts to sensitive vegetation communities, critical habitat, and Preserve areas would occur as a result of construction. These indirect impacts would include invasive weed introduction, sedimentation, and increased fire risk and would be similar to the indirect impacts of the construction of the proposed substation. APMs HAZ-3 and HYDRO-1 would reduce impacts to sensitive natural communities. Mitigation Measures Biology-3 and Aesthetics-1 would further reduce indirect impacts to sensitive habitats by requiring noxious weed control and requiring revegetation and invasive weed management within the substation site. Indirect impacts to sensitive vegetation communities from the construction of Alternative 2 would be less than significant with mitigation.

Jurisdictional Wetlands. Impacts to wetlands from the construction of Alternative 2 are less than those of the proposed project. Alternative 2 would not have any of the direct or indirect impacts associated with the construction of the TL6965 power line. The construction of Alternative 2 would have the same impacts to wetlands as the construction of the proposed substation. There would be significant, indirect impacts associated with grading activities and potential sedimentation to downstream wetland habitats. APM HYDRO-1 would be implemented to reduce indirect impacts to wetlands. APM HYDRO-1 requires SDG&E to implement erosion and sediment control measures; however impacts would still be significant post-construction if permanent restoration and BMPs were not properly implemented. Mitigation Measure Biology-3 would reduce impacts by requiring invasive weed control during construction and Mitigation Measure Aesthetics-1 defines success criteria for the landscaping at

4.4 BIOLOGICAL RESOURCES

the substation site to reduce invasive weed introduction. Indirect impacts to wetlands would be less than significant after mitigation including noxious weed control, permanent slope stabilization, and proper design of the detention basin. Impacts to wetlands would be less than significant with mitigation.

Wildlife Movement Corridors. Impacts to wildlife movement corridors for Alternative 2 are similar to those of the proposed project substation. Impacts from Alternative 2 would be less than impacts from the proposed project because Alternative 2 does not include the construction of the TL6965 power line. Alternative 2 does not involve any linear features that could block wildlife movement during construction, or operation and maintenance. There would be no impacts to wildlife movement corridors.

Local, Regional, or State Habitat Conservation Plan. Alternative 2 would be completed under SDG&E's NCCP. SDG&E's NCCP is currently undergoing an amendment by SDG&E, CDFW, and USFWS. The current NCCP or amended NCCP would apply to the project. Similar to the proposed project, there would be no conflicts with any adopted local, regional or state NCCP. There would be no impact.

Alternative 3: 69/12-kV Substation and Underground 69-kV Power Line within Public ROW

Environmental Setting

Alternative 3 involves the construction of an underground power line along Mountain Miguel Road, Proctor Valley Road, and Hunte Parkway. The existing biological resources conditions for the proposed substation, Miguel Substation, and Hunte Parkway and OTC staging yards described in Section 4.4.1 would apply to this alternative.

The underground line would be located within a paved roadway, which is not suitable habitat for plant or wildlife species. A 500-foot buffer from Hunte Parkway and Proctor Valley Road includes residential areas and preserve areas. The Preserve areas within a 500-foot buffer of Alternative 3 include:

- Chula Vista MSCP Preserve
- San Diego County MSCP Preserve
- Critical habitat for Otay tarplant and Coastal California gnatcatcher

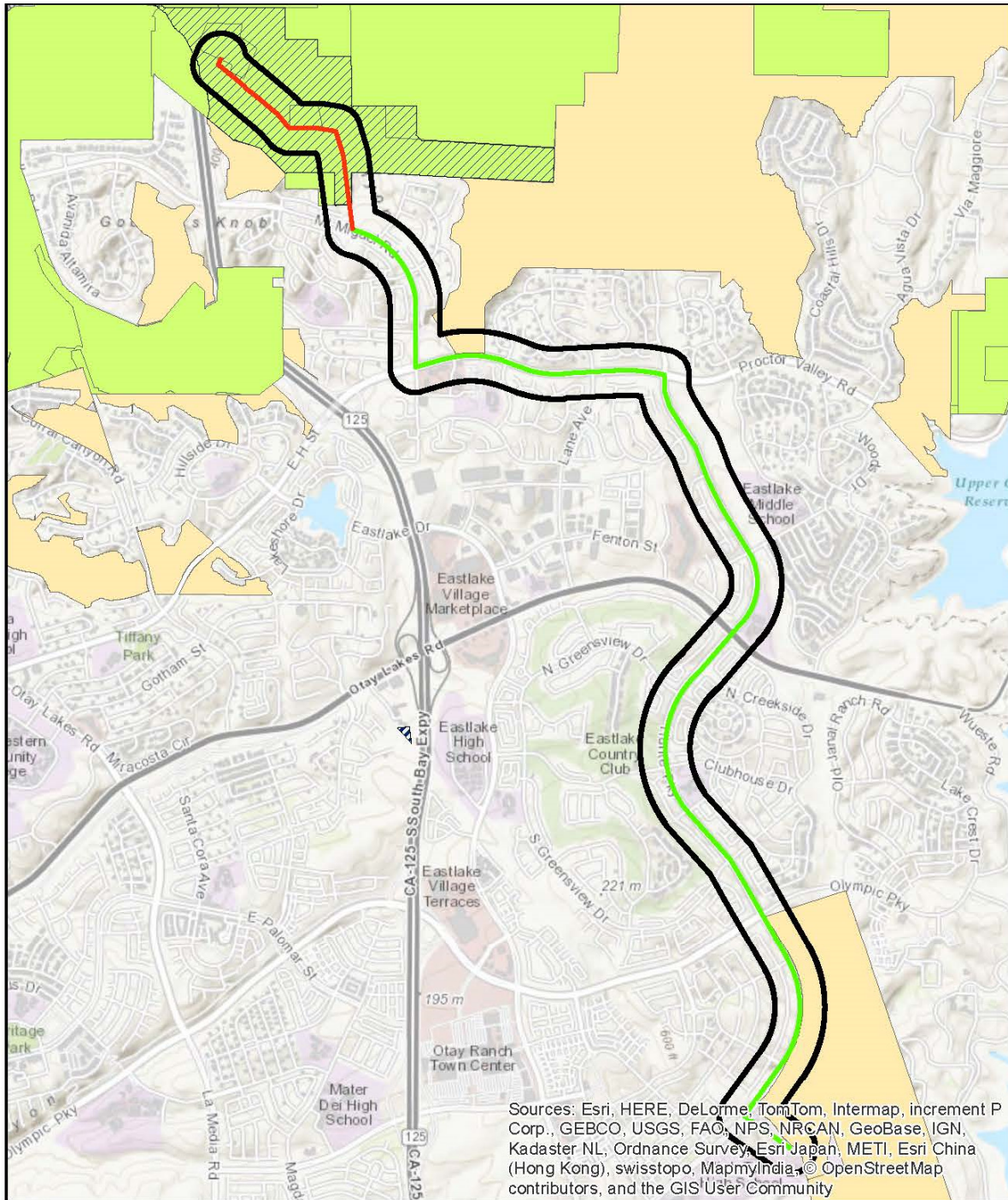
Figure 4.4-4 shows the preserves located within a 500-foot buffer of the Alternative 3 project area, and Figure 4.4-5 shows the critical habitat within a 500-foot buffer of Alternative 3.

Environmental Impacts

Alternative 3 would have fewer overall impacts to biological resources than the proposed project because Alternative 3 does not include the construction of the TL 6965 power line. Impacts associated with the construction of TL 6965 would be avoided in Alternative 3. There would be additional impacts, however, with the construction of an underground line located on Mount Miguel Road, Proctor Valley Road, and Hunte Parkway.

4.4 BIOLOGICAL RESOURCES

Figure 4.4-4 Preserves Located in the Vicinity (500 foot buffer) of Alternative 3



Legend

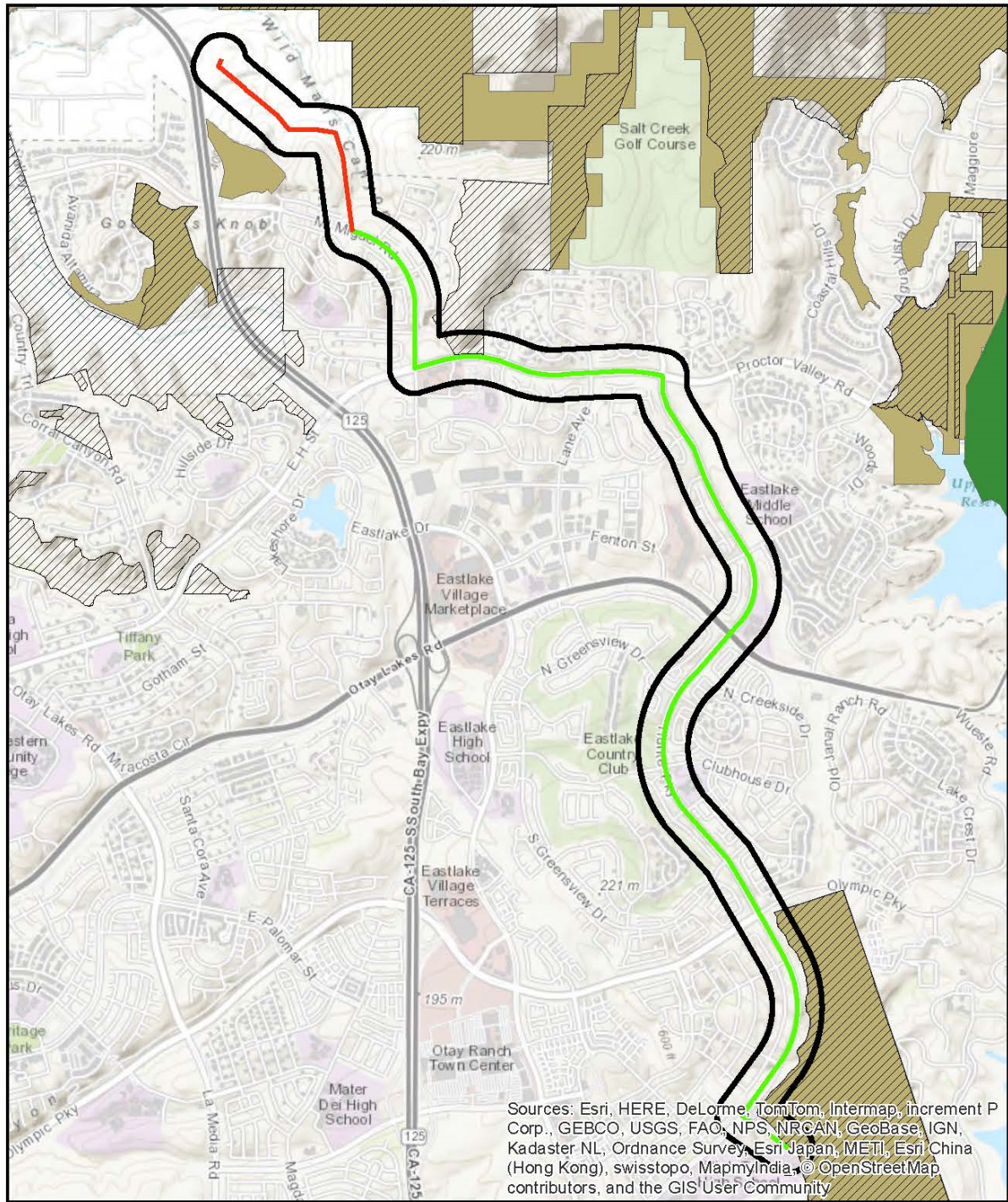
- 500 foot Buffer
- Overhead
- Underground
- SDG&E NCCP Preserve
- San Diego County MSCP
- Chula Vista MSCP

0 0.1250.25 0.5 0.75 1 Miles

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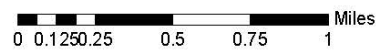
4.4 BIOLOGICAL RESOURCES

Figure 4.4-5 Critical Habitat in the Vicinity (500 foot buffer) of Alternative 3



Legend

-  500 foot Buffer
-  Overhead
-  Underground
-  Coastal California gnatcatcher
-  Otay tarplant
-  Quino checkerspot butterfly



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4.4 BIOLOGICAL RESOURCES

Construction of the 69/12-kV substation and underground power lines would result in temporary and permanent habitat modifications. Temporary and permanent habitat impacts resulting from project construction are summarized in Table 4.4-12. Alternative 2 and Alternative 3 impact the same amount of habitat because they involve the construction of the substation in the same location and configuration. Alternative 3 involves the additional construction of underground power lines that are not included in Alternative 2, but these power lines are located on previously disturbed roads that do not support habitat.

Special-status Species. Impacts to critical habitat, special-status plants, invertebrates, reptiles, birds, mammals, and any special-status species identified in local or regional plans, policies, or regulations are similar to those of the proposed project. Alternative 3 would also have significant impacts on the same special-status species as the proposed project, except for Hermes copper butterfly. Impacts to Hermes copper butterfly are less than significant for Alternative 3 because of the low potential for Hermes copper butterfly to occur in the proposed substation, Miguel Substation, staging yards, and underground power line alignment. There is no potential for special-status species to occur in the work area for the underground power line because the roads are disturbed and do not support suitable habitat for special-status species. Alternative 3 would have slightly more significant indirect impacts to special-status avian and mammal species than the proposed project due to the increased noise associated with a longer construction time-frame for the underground line and increased activity level for the underground construction. The underground alignment on Hunte Parkway is also bordered to the east and south by the MSCP Preserve, which provides suitable habitat for nesting birds. Construction for Alternative 3 underground power line would last approximately 13 months, which is approximately one month longer than the construction time frame for the proposed project overhead power line.

Temporary and permanent habitat impacts associated with the construction of Alternative 3 would result in significant impacts to special-status species. APMs AIR-1, BIO-2, BIO-3, BIO-4, HAZ-3, and HYDRO-1 would be implemented to reduce impacts to special-status species. Direct and indirect impacts to special-status species from construction noise, construction activity, invasive weeds, herbicide application, and electrocution would be potentially significant even with the application of APMs. Mitigation Measures Biology-1, Biology-3, Biology-6, Biology-7, Biology-8, and Biology-9 would be implemented to reduce the impacts to special-status species. Impacts to special-status species would be less than significant with mitigation.

Sensitive Natural Communities. Alternative 3 would not have any of the direct or indirect impacts associated with the construction of the TL 6965 power line. Impacts to sensitive natural communities would result from the construction of the substation and the underground power line.

Construction of the substation would result in direct temporary and permanent impacts to sensitive vegetation communities including Diegan coastal sage scrub and nonnative grassland, as shown in Table 4.4-12. SDG&E has purchased compensatory mitigation to mitigate for

4.4 BIOLOGICAL RESOURCES

impacts from the loss of natural communities within the substation parcel. No additional mitigation is required.

There would be no direct impacts to sensitive natural communities from the construction of the underground power line because construction would occur on previously disturbed roads with no habitat. There would be indirect impacts to sensitive vegetation communities from the construction of the substation and underground power line because of noise and sedimentation. There are preserve areas (Chula Vista MSCP, San Diego County MSCP, SDG&E NCCP Preserve) and critical habitat (Otoy tarplant and Coastal California gnatcatcher) adjacent to the alignment of the underground power line. APMs HYDRO-1 and HAZ-3 would reduce impacts from sedimentation. Impacts from sedimentation and noxious weeds would be significant with APMs. Mitigation Measures Biology-1 and Aesthetics-1 would reduce indirect impacts to sensitive habitats through noxious weed control, permanent stabilization of disturbed areas, and proper design of the detention basin. Indirect impacts to sensitive vegetation communities from the construction of Alternative 3 would be less than significant with mitigation.

Jurisdictional Wetlands. Impacts to wetlands from the construction of Alternative 3 would be less than those of the proposed project. Alternative 3 would not have any of the direct or indirect impacts associated with the construction of the TL6965 power line. There would be no impacts to wetlands from the construction of the underground power line in public roadways because the construction area does not include any wetlands or jurisdictional waters. The construction of Alternative 3 would have the same significant impacts to wetlands as the construction of the proposed substation. There could be indirect impacts associated with grading activities. SDG&E proposed to apply APM HYDRO-1; however, impacts would still be significant after application of APM HYDRO-1. Mitigation Measures Biology-3 and Aesthetics-1 would reduce indirect impacts to wetlands to less than significant.

Wildlife Movement Corridors. Alternative 3 includes an underground power line, which would not affect species movement or migration patterns. The underground power line would be located underneath a road that has been previously disturbed and does not function as a wildlife movement corridor. There would be no impacts to wildlife movement corridors from the substation or underground power line. Impacts would be less than the proposed project because Alternative 3 does not include a linear overhead transmission line.

Local, Regional, or State Habitat Conservation Plan. Alternative 3 would be completed under SDG&E's NCCP. SDG&E's NCCP is currently undergoing an amendment by SDG&E, CDFW, and USFWS. The current NCCP or amended NCCP would apply to the project. Similar to the proposed project, there would be no conflicts with any adopted local, regional or state NCCP. There would be no impact.

No Project Alternative

Under the No Project Alternative, SDG&E would meet energy needs of the southeast Chula Vista area by adding two additional transformer banks at the existing Proctor Valley Substation and installing 6 to 7 miles of distribution circuits. Distribution circuits would likely be installed underground along various routes in the Otay Ranch area. None of the facilities associated with

4.4 BIOLOGICAL RESOURCES

the proposed project or alternatives evaluated in this Draft EIR would be constructed. Therefore, none of the impacts associated with biological resources described in this section would occur.

The two transformer banks at Proctor Valley Substation are currently approved and would be constructed even if the proposed project is not constructed. There would be no additional impacts to biological resources from the construction of the transformer banks at Proctor Valley Substation under the No Project Alternative. The additional distribution circuits would be located underground in existing roadways and there would be no habitat impacts associated with the additional distribution lines. The noise associated with the distribution construction would be temporary and could result in less than significant impacts to avian species. Impacts would be less than significant.