

## D.4 Biological Resources

This chapter identifies biological resources within and adjacent to the Project as well as potential impacts to these resources. In addition, this chapter includes information from the *Final Biological Technical Report for the Valley-Ivyglen Transmission Line Project Riverside County, California* (AMEC 2006), as well as the *Proponent's Environmental Assessments (PEA)* which were included as part of the consolidated application. As the third-party contractor to the CPUC, Ecology and Environment, Inc. (E & E) conducted a third-party review of the above referenced reports, consulted the United States Fish and Wildlife Service (USFWS), queried the California Department of Fish and Game's California Natural Diversity Database (CNDDDB), and reviewed other relevant literature on biological resources within the region.

### D.4.1 Environmental Setting

The project site is located in western Riverside County and contains a combination of agricultural, municipal, private, and reserve land, most with previous disturbance. The region has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. In summer, temperatures often reach 100° F and winter temperatures fall to the 30°s, with an occasional freeze. Average annual temperature ranges are moderate for the area, ranging from 49.3° F to 79.5° F. Average total precipitation for the area is approximately 10 to 15 inches per year.

#### D.4.1.1 Vegetation Mapping Methods

Vegetation communities have been classified and mapped according to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conservation Area descriptions (County of Riverside 2003). The MSHCP was used in place of the *A Manual of California Vegetation* to maintain consistency between this report and the local habitat conservation plan, which is consistent with the protocols of the California Native Plant Society (CNPS) (CNPS 2001). Vegetation communities and dominant plant species were identified visually and mapped on orthorectified aerial photographs of the project study area. Dominant plant species and community structure were also recorded, and the acreages of all vegetation communities in the study corridor were delineated.

#### D.4.1.2 Special Status Plant Species Survey Methods

Biological surveys and habitat suitability assessments were conducted within the Project, including alternatives. Biologists walked all areas of potential disturbance. Surveys determined the presence and likelihood of special status plant species and included mapping of vegetation communities within the project area.

Botanical surveys of the subtransmission line segments were conducted following the California Department of Fish and Game (CDFG) *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (CDFG 2006) and the CNPS *Botanical Survey Guidelines* (CNPS 2001).

Field surveys were scheduled to coincide with the season of year when observations of sensitive plant species were most likely to occur. All vascular plant species observed during surveys of the segments were documented. Special status plant species encountered were mapped and added to the project's GIS database.

### D.4.1.3 Special Status Wildlife Habitat Assessment Methods

Reconnaissance-level surveys were conducted to characterize wildlife habitat types and to evaluate the potential for occurrence of special status wildlife species in the project study area. The proposed subtransmission line route was traversed by foot and vehicle to survey each vegetation community for evidence of wildlife presence. All wildlife and wildlife signs, including tracks, fecal material, nests, and vocalizations were noted. All sensitive wildlife species encountered were mapped and added to the Project's GIS database.

Additionally, habitat on each segment of the subtransmission line was specifically assessed for burrowing owl presence, use, and potential use in compliance with the MSHCP. Burrowing owl habitat assessment surveys were conducted according to the CDFG *Burrowing Owl Consortium Guidelines* (CDFG 1993) and the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (County of Riverside 2006).

Areas with potential burrowing owl habitat, including grasslands, sage scrub, and low growing vegetation, were surveyed for potential owl burrows and owls. These surveys included ground squirrel and ground squirrel burrow surveys. Biologists walked areas of potential habitat while searching for burrowing owls, potential and active burrows, and owl signs such as feathers, pellets, and prey items. Surveys were conducted to allow 100 percent visual coverage of potential habitat of the project footprint (500-foot buffer area from the centerline of each segment). The guidelines require that, if the project site contains burrows that could be used by burrowing owls, survey efforts should be directed towards determining owl presence.

### D.4.1.4 Existing Biological Resources Along the Proposed Subtransmission Line Route

#### Valley-Ivyglen 115 kV Subtransmission Line

The proposed subtransmission line route would run through areas of unincorporated Riverside County and the Cities of Lake Elsinore and Perris, California. The project area contains a combination of agricultural, municipal, private, and reserve land, most with previous disturbance. Topography along the proposed subtransmission line route is generally gentle rolling hills.

Dominant vegetation communities include coastal sage scrub, grasslands, agriculture, and developed disturbed land (ruderal habitat). Additional communities found within the study area include woodlands and forest, Riversidean alluvial fan sage scrub, riparian scrub/woodland/forest, vernal pools, and open water. Previous agriculture, grazing, fire suppression, and invasion of nonnative plant species have contributed to the disturbed condition of many vegetation communities in the study area.

Vegetation communities are described in Table D.4-1. Table D.4.1 summarizes the vegetation communities that are present along each of the proposed segments while Figures D.4-1 to D.4-3 illustrate the vegetation communities that are present along each proposed segment.

Several special status species were identified as occurring or potentially occurring along the proposed route as summarized in Tables D.4-2 and D.4-3. Additional information about these species is included in the technical study for the Project (Appendix 1).

Table D.4-1 Valley-Ivyglen Subtransmission Line Project Vegetation Communities

Routes	Coastal Sage Scrub	Nonnative Grassland	Agricultural Land	Developed-Disturbed Land	Woodlands and Forest	Riversidean Alluvial Fan Sage Scrub	Riparian Scrub, Woodland Forest	Meadows and Marshes
Segment E-1	•	•		•			•	
Segment C-1	•	•	•	•			•	
Segment C-3	•	•		•		•		
Segment C-4	•	•		•		•	•	
Segment C-6	•	•		•			•	•
Segment W-1	•	•	•	•			•	
Segment W-4	•	•		•	•	•	•	
Segment W-8	•							
Segment W-10	•	•		•	•	•	•	

### Telecommunications System

The telecommunications system would be installed above ground with the subtransmission line with the exception of 600 feet of underground line running to the Ivyglen and Fogarty Substations. Biological resources along the telecommunications system route would be the same as those occurring along the subtransmission line route and those occurring in the vicinity of the substations.

Habitat along the underground segment running to the Valley Substation consists of residential/urban/exotic. Plant communities occurring nearby include field cropland and nonnative grassland.

Vegetation communities in the vicinity of the underground segment running to Ivyglen Substation include Riversidean alluvial fan sage scrub and coastal sage scrub.

### Fogarty Substation

The proposed substation would be constructed within the City of Lake Elsinore, California. The topography in the general vicinity is generally flat or gently to moderately sloped, and contains the following vegetation communities:

- **Nonnative grasslands** (6 acres) with wild oat (*Avena* spp.), wild barley (*Hordeum murinum*), and soft chess (*Bromus hordeaceus*)
- **Developed disturbed land** (0.53 acres) (ruderal habitat) in the northeastern portion of the parcel
- **Riparian/riverine habitat** on the eastern half of the project area, with a drainage running the width of the site and exiting near the northeast corner. This drainage is not a jurisdictional wetland due to the lack of wetland characteristics (i.e., wetland vegetation) and will likely need to be addressed during the storm water pollution prevention plan (SWPPP) and National Pollution Discharge Elimination System (NPDES) permitting process.

The site also includes some interspersed remnant coastal sage scrub. Additional habitats found near the site include southern willow scrub, freshwater marsh, and alkali marsh.

A disturbed qualifier was placed on coastal sage scrub (or any other native habitat) based on mechanical disturbance (e.g., brushing or clearing, off-road vehicle activity). The community was mapped as

disturbed coastal sage scrub only when there was evidence of disturbance such as soil compaction, firebreak clearing, repeated burns, or other activities that have left a sparse, scattered cover of shrubs, or introduced a cover of nonnative species that have become established as part of the community.

### **Existing Valley and Ivyglen Substations**

Upgrades to the existing Valley and Ivyglen Substations would take place within the footprint of the existing structure.

#### **D.4.1.5 Special Status Species**

A review of the relevant literature and a CNDDDB query identified 91 special status species as occurring or potentially occurring along the proposed subtransmission line route. These species are listed below along with their status, habitat requirements, conservation status, and probability of occurring (Tables D.4-2 and D.4-3). Of these, 71 were eliminated from further consideration because they are generally recognized not to occur in the vicinity, because the proposed subtransmission line route is not within the species' known tolerances (e.g., elevation, etc.), or owing to a lack of suitable habitat or microhabitat features. Additional information about these species is included in the technical study for the Project (Appendix 1). Expanded species descriptions are provided for species known to inhabit the project site, those with unknown occurrence but potential to inhabit the project site, and those for which reviewing agencies are known to have particular concern.

#### **Special Status Wildlife Species**

##### **Stephens' kangaroo rat (*Dipodomys stephensi*)**

Stephens' kangaroo rat is listed as Endangered federally, and listed as Threatened by the state, along with being an MSHCP Covered Species. The CNDDDB identifies a historic occurrence of this species along Segments E-1, C-6, C-1, and W-10 within nonnative grassland habitat. Other areas along this segment are occupied by open grasslands or sparse scrublands on gentle slopes which fit the habitat criteria for this species.

##### **Orange-throated whiptail (*Aspidoscelis (Cnemidophorus) hyperythra beldingi*)**

Orange-throated whiptail is a federally and state listed species of special concern and MSCHP Covered Species. Two historic CNDDDB records were found for this species along Segments C-1 and W-4 within disturbed habitat.

##### **Western spadefoot toad (*Scaphiopus hammondi*)**

Juvenile western spadefoot toads were identified along Segment W-1 within three artificial pools located within Pacific Clay Products, Inc. property. Other areas along this segment containing ponded or pooled areas void of fish, bullfrogs, and crayfish may support breeding habitat for this species (AMEC 2006).

##### **Bells' sage sparrow (*Amphispiza belli belli*)**

The CNDDDB identifies an occurrence of this species adjacent to Segments E-1 and C-1 within disturbed coastal sage scrub habitat. Other areas along this segment that are occupied by semi-open coastal sage scrub habitat may also support this species.

##### **Coastal California gnatcatcher (*Polioptila californica californica*)**

The Coastal California gnatcatcher is a federally listed threatened, state listed species of special concern, MSHCP Covered Species. The CNDDDB identifies historic occurrences of coastal California gnatcatcher within disturbed habitat along and adjacent to segments E-1 and C-1. Areas along these segments that are occupied by various stages of coastal sage scrub may support nesting and foraging habitat for this species.

Insert 1 of 2

**Figure D.4-1 Vegetation Communities and Special Status Species Occurrences**

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Figure D.4-1 Vegetation Communities and Special Status Species Occurrences

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**Figure D.4-2 Vegetation Communities and Special Status Species Occurrences**

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Figure D.4-2 Vegetation Communities and Special Status Species Occurrences



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**Figure D.4-3 Vegetation Communities and Special Status Species Occurrences**

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Figure D.4-3 Vegetation Communities and Special Status Species Occurrences

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**Figure D.4-1, -2, -3 Map Legend**

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**Figure D.4-1, -2, -3 Map Legend**

Table D.4-2 Special status wildlife species known to occur or with the potential to occur within the project areas

Scientific Name	Common Name	Status			Habitat	Potential to occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
<b>Mammals</b>							
<i>Antrozous pallidus</i>	pallid bat		SSC		Grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests, most common in open, dry habitats with rocky areas for roosting	High foraging, low roosting	High foraging, low roosting
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse		SSC		Scrub/grassland interface, also woodlands and chaparral	Moderate	Moderate
<i>Chaetodipus fallax fallax</i>	Northwestern San Diego Pocket Mouse		SSC	Covered Species	Sage scrub, grassland, desert scrub	Moderate	Moderate
<i>Dipodomys stephensi</i>	Stephens' Kangaroo Rat	E	T	Covered Species	Grasslands with sparse to no shrub cover	Present (E-1, C-1, C-6, W-10)	Low
<i>Eumops perotis</i>	Western Mastiff Bat		SSC		Areas of chaparral or live oaks and in more arid, rocky regions.	Moderate	Low
<i>Lasiurus blossevillii</i>	western red bat		SSC		Roosts in forests and woodlands from sea level up through mixed conifer forests, feeds in grasslands, shrublands, open woodlands and forests, and croplands	High foraging, low roosting	High foraging, low roosting
<i>Lasiurus xanthinus</i>	Western yellow bat		SSC* CNDDDB		Valley foothill riparian, desert riparian, desert wash, and palm oasis	Moderate foraging	Low
<i>Lepus californicus bennettii</i>	San Diego Black-Tailed Jackrabbit		SSC	Covered Species	Scrub/grassland interface	Moderate	Present
<i>Myotis yumanensis</i>	Yuma myotis		CNDDDB		Various habitats from sea level to 11,000 ft, roosts in buildings, mines, caves, or crevices	High foraging, low roosting	High foraging, low roosting
<i>Neotoma lepida intermedia</i>	San Diego Desert Woodrat		SSC	Covered Species	Cactus thickets, chaparral, sage scrub	High	Low

Table D.4-2 Special status wildlife species known to occur or with the potential to occur within the project areas

Scientific Name	Common Name	Status			Habitat	Potential to occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat		SSC		Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis	Low	Low
<i>Onychomys torridus ramona</i>	Southern Grasshopper Mouse		SSC		Abandoned rodent burrows in low to moderate shrub cover	Moderate	Moderate
<i>Perognathus longimembris brevinasus</i>	Los Angeles Pocket Mouse		SSC	Covered Species	Narrow coastal plains.	Moderate	Low
<i>Taxidea taxus</i>	American badger		SSC		Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils	Low	Low
<b>Birds</b>							
<i>Accipiter cooperii</i>	Cooper's Hawk (nesting)		SSC	Covered Species	Oak woodland, eucalyptus, mature riparian forest	Present, potential nesting	Present (foraging)
<i>Accipiter striatus</i>	Sharp-Shinned Hawk (nesting)		SSC	Covered Species	Grasslands, coastal sage scrub	Moderate (foraging winter migrant)	Moderate (foraging winter migrant)
<i>Agelaius tricolor</i>	Tri-Colored Blackbird (Nesting Colony)	FBCC	SSC	Covered Species	Marshes, fields	Moderate	Low foraging, no nesting
<i>Aimophila ruficeps canescens</i>	Southern California Rufous-Crowned Sparrow		SSC	Covered Species	Open coastal sage scrub	Present (E-1) potential nesting	High-Moderate
<i>Amphispiza belli belli</i>	Bell's Sage Sparrow (nesting)	FBCC	SSC	Covered Species	Coastal sage scrub, chaparral	Present (E-1, C-1) potential nesting	Moderate
<i>Aquila chrysaetos</i>	Golden Eagle (nesting and wintering)	FBCC BEPA	SSC CFP	Covered Species	Grasslands, trees, cliffs, scrub featuring suitable prey species such as ground squirrels, rabbits, and jackrabbits.	Moderate (foraging)	Low
<i>Athene cunicularia</i>	Western Burrowing Owl (burrowing sites and some wintering sites)	FBCC	SSC	Covered Species	Open, grasslands with sparse shrub and tree cover, and featuring burrowing mammals such as ground squirrels, badgers, or coyotes.	Present (E-1, C-1) potential nesting (i.e., ground squirrel burrows present)	Moderate, potential limited by high weedy growth and discing, ground squirrel burrows present

Table D.4-2 Special status wildlife species known to occur or with the potential to occur within the project areas

Scientific Name	Common Name	Status			Habitat	Potential to occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
<i>Buteo regalis</i>	Ferruginous Hawk (wintering)	FBCC	SSC	Covered Species	Grasslands, shrublands, and savannahs featuring suitable prey including small mammals, ground squirrels, rabbits, and jackrabbits.	Moderate, uncommon winter visitor could forage in study area	Moderate, uncommon winter visitor could forage in study area
<i>Circus cyaneus</i>	Northern Harrier (nesting)	MBTA	SSC	Covered Species	Grasslands, marshes, open habitats	Moderate, potential nesting	Low
<i>Elanus leucurus</i>	White-Tailed Kite (nesting)		CFP	Covered Species	Grasslands, marshlands, shrublands, and sparse forests. Forages and nests in open habitats with perches often in clearings and at edges of open fields.	Present, potential nesting	Moderate foraging, potential nesting in 7 and 9
<i>Empidonax traillii extimus</i>	Southwestern Willow Flycatcher (nesting)	E	E	Covered Species	Well developed riparian woodland, willow meadows	Moderate, potential nesting	Low in 7 and 9, potential nesting
<i>Eremophila alpestris actia</i>	California Horned Lark		SSC	Covered Species	Open habitats including grasslands, agricultural areas (crops and rangelands) and bare ground.	Moderate	Low, potential limited by high weedy growth
<i>Icteria virens</i>	Yellow-Breasted Chat (nesting)		SSC	Covered Species	Mature riparian woodland	Moderate, potential nesting	Moderate
<i>Lanius ludovicianus</i>	Loggerhead Shrike (nesting)	FBCC	SSC	Covered Species	Open habitats, scrub	High, potential nesting	High, potential nesting
<i>Plegadis chihi</i>	White-Faced Ibis (rookery site)		SSC	Covered Species	Freshwater lagoons, rivers, lakes, wet agricultural fields, and occasionally salt marshes	Moderate	Low
<i>Polioptila californica californica</i>	Coastal California Gnatcatcher	T	SSC	Covered Species	Coastal sage scrub	Present (C-1) potential nesting	High, potential nesting
<i>Vireo bellii pusillus</i>	Least Bell's Vireo	E FBCC	E	Covered Species	Riparian scrub and low woodland	Moderate, potential nesting	Moderate

Table D.4-2 Special status wildlife species known to occur or with the potential to occur within the project areas

Scientific Name	Common Name	Status			Habitat	Potential to occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
<b>Reptiles</b>							
<i>Aspidoscelis (Cnemidophorus) hyperythra beldingi</i>	Orange-Throated Whiptail		SSC	Covered Species	Open sage scrub, chaparral, sandy wash, woodland	Present (C-1, W-4)	High
<i>Aspidoscelis (Cnemidophorus) tigris stejnegeri</i>	Coastal Western Whiptail		CNDDDB	Covered Species	Dense chaparral and sage scrub, especially around sandy washes and streambeds	Moderate	Moderate
<i>Charina (Lichanura) trivirgata roseofusca</i>	Coastal Rosy Boa		CNDDDB		Dry, rocky brushlands and arid habitats, prefers rock outcrops	Moderate	Moderate
<i>Actinemys (Clemmys) marmorata pallida</i>	Southwestern Pond Turtle		SSC	Covered Species	Streams, ponds, upland within 400 meters of ponds	Moderate (in the vicinity of ponded water)	Low
<i>Coleonyx variegatus abbotii</i>	San Diego Banded Gecko		CNDDDB	Covered Species	Coastal sage scrub and chaparral, prefers rock outcrops	Moderate	Low
<i>Crotalus ruber ruber</i>	Northern Red Diamond Rattlesnake		SSC	Covered Species	Scrub, chaparral, riparian	Moderate	Low
<i>Phrynosoma coronatum (blainvillii)</i>	Coast (San Diego) Horned Lizard		SSC	Covered Species	Sage scrub, chaparral, forests	High	High
<i>Salvadora hexalepis virgultea</i>	Coast Patch-Nosed Snake		SSC		Open habitats, brush	Moderate	Moderate
<i>Thamnophis hammondi</i>	Two-Striped Garter Snake		SSC		Creeks and ponds, nearby upland habitats	Moderate	Low
<b>Amphibians</b>							
<i>Bufo californicus</i>	Arroyo Toad	E	SSC	Covered Species	Open, sandy or gravelly, riparian breeding areas and adjacent upland habitat within approximately 1 kilometer of breeding areas	Moderate	Low
<i>Spea (Scaphiopus) hammondi</i>	Western Spadefoot Toad		SSC	Covered Species	Ephemeral pools, grassland, scrub, chaparral	Present (W-1)	Low
<i>Taricha torosa torosa</i>	Coast Range newt		SSC	Covered Species	Wet forests, oak forests, chaparral, and rolling grasslands	Moderate	Moderate
<b>Invertebrates</b>							
<i>Carolella busckana</i>	Busck's gallmoth		CNDDDB		Unknown	Unknown	Unknown
<i>Ceratochrysis longimala</i>	A cuckoo wasp		CNDDDB		Unknown	Unknown	Unknown



Table D.4-2 Special status wildlife species known to occur or with the potential to occur within the project areas

Scientific Name	Common Name	Status			Habitat	Potential to occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
<i>Euphydryas editha quino</i>	Quino Checkerspot Butterfly	E		Covered Species	Grasslands, sage scrub, chaparral with open areas	Moderate	Low

Sources: CDFG 2005, 2008, 2008b, & 2008c; AMEC 2006; County of Riverside 2003

E = Endangered

T = Threatened

SSC = California Species of Special Concern

CFG = California Fully Protected

FBCC = Federal Bird of Conservation Concern

BEPA = Bald and Golden Eagle Protection Act

CNDDDB = California Natural Diversity Database species

MSHCP = Riverside County Multiple Species Habitat Conservation Plan

**Covered Species** = Species considered for conservation in the MSHCP which may be subject to conservation requirements and objectives outlined in the MSHCP

\*Designation is based on the draft updated Mammalian Species of Special Concern report

**Bold Text = Found During Biological Survey**

E-1, C-1, W-4, C-6, W-1, W-8 = Segments of Valley-Ivyglen Subtransmission Line

Table D.4-3 Special status plant species known to occur or with the potential to occur within the project areas

Scientific name	Common name	Status				Bloom period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
<i>Abronia villosa</i> <i>var. aurita</i>	chaparral sand- verbena			1B.1		Jan-Sept	Chaparral, coastal scrub, desert dunes/sandy	Present (CNDDDB records)	Moderate, habitat present
<i>Allium munzii</i>	Munz's onion	E	T	1B.1	Narrow Endemic	Mar-May	Chaparral, cismontane, woodland coastal scrub, pinyon/juniper woodland, valley and foothill grassland/mesic, clay	Present (W-4, W-8, W-10)	Moderate, habitat present
<i>Ambrosia pumila</i>	San Diego ambrosia	E		1B.1	Narrow Endemic	May-Sept	Chaparral, coastal scrub, valley and foothill grassland, vernal pools/often in disturbed areas	Present (C- 6, W-1)	Present nearby
<i>Arctostaphylos</i> <i>rainbowensis</i>	Rainbow manzanita			1B.1	Covered Species		Chaparral	Low	Low
<i>Astragalus</i> <i>pachypus var.</i> <i>jaegeri</i>	Jaeger's milk-vetch			1B.1	Covered Species	Dec-Apr	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/sandy or rocky.	Moderate, habitat present	Moderate, habitat present
<i>Atriplex coronata</i> <i>var. notatior</i>	San Jacinto Valley crownscale	E		1B.1	Criteria Species	Apr-Aug	Playas, valley and foothill grassland (mesic), vernal pools/alkaline	Present (C- 6)	Present nearby
<i>Atriplex coulteri</i>	Coulter's saltbush			1B.2		Mar-Oct	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland/alkaline or clay	High, alkaline soils present	High, alkaline soils present
<i>Atriplex pacifica</i>	South Coast saltscale			1B.2		Mar-Oct	Coastal bluff scrub, coastal dunes, coastal scrub, playas	Moderate, habitat present	Moderate, habitat present
<i>Atriplex parishii</i>	Parish's brittlescale			1B.1	Criteria Species	Jun-Oct	Coastal scrub, playas, vernal pools	Moderate, habitat present	Moderate, habitat present
<i>Atriplex serenana</i> <i>var. davidsonii</i>	Davidson's saltscale			1B.2	Criteria Species	Apr-Oct	Coastal bluff scrub, coastal scrub/alkaline	High, alkaline soils present	High, alkaline soils present

Table D.4-3 Special status plant species known to occur or with the potential to occur within the project areas

Scientific name	Common name	Status				Bloom period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	T	E	1B.1	Criteria Species	Mar-Jun	Chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools/often clay	Present (CNDDDB record), clay soils present	Moderate, habitat present
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea			1B.1	Covered Species	May-July	Closed cone coniferous forest, chaparral, cismontane woodland, meadows, valley and foothill grassland, vernal pools/mesic, clay, sometimes serpentine	Moderate, habitat present	Moderate, habitat present
<i>California macrophylla</i>	round-leaved filaree			1B.1	Criteria Species	Mar-May	Cismontane woodland, valley and foothill grassland/clay	Present (W4)	Moderate, habitat present
<i>Calochortus plummerae</i>	Plummer's mariposa lily			1B.2	Covered Species	May-July	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland/granitic, rocky	Moderate, habitat present	Moderate, habitat present
<i>Calochortus weedii</i> var. <i>intermedius</i>	intermediate mariposa lily			1B.2	Covered Species	May-July	Chaparral, coastal scrub, valley and foothill grassland/rocky	Moderate, suitable habitat exists	Moderate, suitable habitat exists
<i>Centromadia pungens</i> ssp. <i>Laevis</i>	smooth tarplant			1B.1	Criteria Species	Apr-Sept	Chenopod scrub, meadows, playas, riparian woodland, valley and foothill grassland	Present (C-6, W-1)	Moderate, habitat present
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower			3.2	Covered Species	Apr-Jun	Chaparral, coastal scrub/sandy or rocky openings	Moderate, habitat present	Moderate, habitat present
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower			1B.2	Covered Species	April-July	Chaparral, coastal scrub, meadows, valley and foothill grassland/often clay	Present (W1)	Present

Table D.4-3 Special status plant species known to occur or with the potential to occur within the project areas

Scientific name	Common name	Status				Bloom period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	summer holly			1B.2			Chaparral at 100–550 m	Low	Low
<i>Convolvulus simulans</i>	small-flowered morning glory			4.2	Covered Species	Mar-July	Chaparral (openings), coastal scrub, valley and foothill grassland/clay, serpentine seeps	Present (W-4)	Moderate, habitat present
<i>Cupressus forbesii</i>	Tecate cypress			1B.2			Chaparral, closed-cone pine forest at 450–1500 m.	Low	Low
<i>Dodecahema leptoceras</i>	slender-horned spineflower	E	E	1B.1	Narrow Endemic	Apr-Jun	Chaparral, cismontane woodland, coastal scrub/(alluvial fan)/sandy	Present (W-4)	Moderate, habitat present
<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>	Santa Monica Mountains dudleya	T		1B.2		Mar-Jun	Chaparral, coastal scrub	Moderate, habitat present	Moderate, habitat present
<i>Dudleya multicaulis</i>	many-stemmed dudleya			1B.2	Narrow Endemic	Apr-Jul	Chaparral, coastal scrub, valley and foothill grassland/often clay	Present (W-4, W-8)	Moderate, habitat present
<i>Dudleya viscida</i>	sticky dudleya			1B.2	Covered Species	May-Jun	Coastal bluff scrub, chaparral, coastal scrub/rocky	Low, no habitat present	Low, no habitat present
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	E	E	1B.1	Covered Species	Apr-Jun	Coastal scrub, valley and foothill grassland, vernal pools/mesic	Moderate, habitat present	Low, no habitat present
<i>Harpagonella palmeri</i>	Palmer's grapplinghook			4.2	Covered Species	Mar-May	Chaparral, coastal scrub, valley and foothill grassland/clay	High, clay soils present	Present nearby
<i>Hordeum intercedens</i>	vernal barley			3.2	Covered Species	Mar-Jun	Coastal dunes, coastal scrub, valley and foothill grassland, vernal pools	Moderate, habitat present	Moderate, habitat present
<i>Horkelia cuneata</i> ssp. <i>Puberula</i>	mesa horkelia			1B.1		Feb-Sept	Chaparral, cismontane woodland, coastal scrub/sand, gravelly	Moderate, habitat present	Moderate, habitat present
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields			1B.1	Criteria Species	Feb-Jun	Marsh and swamp (coastal salt), playas, vernal pools	Moderate, habitat present	Present nearby

Table D.4-3 Special status plant species known to occur or with the potential to occur within the project areas

Scientific name	Common name	Status				Bloom period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass			1B.2	Covered Species	Jan-July	Chaparral, coastal scrub	Moderate, habitat present	Moderate, habitat present
<i>Monardella macrantha</i> spp. <i>hallii</i>	Hall's monardella			1B.3	Covered Species	Jun-Aug	Broad-leaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland	Moderate, habitat present	Low, no habitat present
<i>Myosurus minimus</i> ssp. <i>Apus</i>	little mousetail			3.1	Criteria Species	Mar-Jun	Valley and foothill grassland, vernal pools (alkaline)	Moderate, mesic alkaline soils present	Moderate, habitat present
<i>Navarretia fossalis</i>	spreading navarretia	T		1B.1	Narrow Endemic	Apr-Jun	Chenopod scrub, marsh and swamp (shallow fresh water), alkali playas, vernal pools	Moderate, mesic alkaline soils present	Moderate, habitat present
<i>Navarretia prostrata</i>	prostrate navarretia			1B.1	Criteria Species	Apr-July	Coastal scrub, meadows, valley and foothill grassland, (alkaline), vernal pools/mesic	Moderate, mesic alkaline soils present	Moderate, mesic alkaline soils present nearby
<i>Nolina cismontana</i>	chaparral nolina			1B.2		May-July	Chaparral, coastal scrub/sandstone or gabbro	Moderate, habitat present	Moderate, habitat present
<i>Satureja chandleri</i>	San Miguel savory			1B.2	Narrow Endemic	Mar-July	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland/rocky, gabbroic or metavolcanic	Moderate, habitat present	Moderate, habitat present
<i>Senecio aphanactis</i>	rayless ragwort			2.2		Jan-Apr	Chaparral, cismontane woodland, coastal scrub/alkaline	Moderate, habitat present	Moderate, habitat present
<i>Sibaropsis hammittii</i>	Hammitt's clay-cress			1B.2		Mar-Apr	Chaparral, valley and foothill grassland	Moderate, habitat present	Low, no habitat present

Table D.4-3 Special status plant species known to occur or with the potential to occur within the project areas

Scientific name	Common name	Status				Bloom period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
<i>Sidalcea neomexicana</i>	salt spring checkerbloom			2.2	Covered Species	Mar-Jun	Chaparral, coastal scrub, lower montane coniferous forest, Mojave desert scrub, playas/alkaline, mesic	High, alkaline soils present	High, alkaline soils present
<i>Sphaerocarpos drewei</i>	bottle liverwort			1B.1		n/a	Chaparral, coastal scrub/opening, soil	Moderate, habitat present	Moderate, habitat present
<i>Symphyotrichum defoliatum</i>	San Bernardino aster			1B.2		Jul-Nov	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows, marsh and swamp, valley and foothill grassland (vernally mesic)/near ditches, streams, springs	Moderate, habitat present	Moderate, habitat present
<i>Tetracoccus dioicus</i>	Parry's tetracoccus			1B.2		Apr-May	Chaparral, coastal scrub	Moderate, habitat present	Moderate, habitat present
<i>Tortula californica</i>	California screw moss			1B.2		n/a	Chenopod scrub, valley and foothill grassland/sandy soil	Moderate, habitat present	Low, no habitat present
<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Wright's trichocoronis			2.1	Narrow Endemic	May-Sept	Meadows, marsh and swamp riparian forest, vernal pools/alkaline	High, alkaline soils present	High, alkaline soils present

Sources: CNPS 2006; CDFG 2005, 2008a & 2008b; AMEC 2006; County of Riverside 2003

E = Endangered

T = Threatened

**MSHCP** = Riverside County Multiple Species Habitat Conservation Plan

**Criteria Species** = Species which need to be surveyed for in MSHCP criteria areas

**Narrow Endemic** = Species that is confined to a specific geographic region, soil type, and/or habitat

**Covered Species** = Species considered for conservation in the MSHCP which may be subject to conservation requirements and objectives outlined in the MSHCP

**CNDDDB** = California Natural Diversity Database species

**CNPS Status**

1B = Rare or endangered in California and elsewhere

2 = Rare or endangered in California, but more common elsewhere

3 = Review list-plant for which we need more information

4 = Plants with limited Distribution- Watch List

.1 = Seriously endangered in California

.2 = Fairly endangered in California

.3 = Not very endangered in California

**Bold Text** = Found During Biological Survey

E-1, C-1, W-4, C-6, W-1, W-8 = Segments of Valley-Ivyglen Subtransmission Line

### **Burrowing owl (*Athene cunicularia*)**

Although no burrowing owls were observed during recent biological surveys, the CNDDDB recognizes historic occurrences of this species along Segments E-1 and C-1 within disturbed/developed and nonnative grassland habitats. Other areas along this segment that are occupied by open, nonnative grassland and agriculture fields may additionally support this species.

### **Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)**

A CNDDDB historic occurrence of this species is located adjacent to Segment E-1 within disturbed coastal sage scrub habitat. Other areas along this segment that are occupied by open coastal scrub on medium to steep slopes may also support this species.

## **Special Status Vegetation**

### **Coastal Sage Scrub**

Coastal sage scrub, a MSHCP covered species, is characterized by short (less than two meters) aromatic species of soft chaparral, such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera*, *S. apiana*) (Holland 1986; Sawyer-Wolf 1995). This community is a sensitive resource, as several sensitive flora and fauna species are associated with this habitat type including the coastal California gnatcatcher and Stephens' kangaroo rat (County of Riverside 2003). The range coastal sage scrub has been constrained due to human activity such as increased urbanization and conversion for agriculture (Holland and Keil 1995).

### **Long-spined spineflower (*Chorizanthe polygonoides var. longispina*)**

The CNDDDB identifies a historic occurrence of this species adjacent to Segment W-1 within fairly open disturbed habitat. Other areas within and adjacent to this segment contain clay soils, a known habitat for this species. Threats to the Long-spined spineflower are mostly due to construction activities associated with urban sprawl (Skinner and Pavlik 1994).

### **Slender-horned spineflower (*Dodecahema leptoceras*)**

Slender-horned spineflower is a small, spreading annual herb in the buckwheat family (*Polygonaceae*). This federally and state listed endangered species is endemic to California and occurs only in Los Angeles, Riverside, and San Bernardino Counties (CNPS 2006). A CNDDDB historic occurrence of this species is located adjacent to Segment W-4. This species is commonly found in Riversidean alluvial fan sage scrub habitat as well as other areas occupied by sandy or gravelly alluvium.

### **Small-flowered morning glory (*Convolvulus simulans*)**

Small-flowered morning glory is a CNPS listed and MSHCP Covered Species in the morning glory family (*Convolvulaceae*) that is restricted to clay soils and serpentine seeps and ridges, occurring below elevations of 700 meters (2296 feet) in southern valley needlegrass grassland, mixed native and non-native grasslands, and open coastal sage scrub (County of Riverside 2003).

Biologists identified a population of this species within clay soils that are associated with nonnative grassland along segment W-4 (AMEC 2006). Other areas along this segment associated with heavy clay soils may support this species.

### **Many-stemmed dudleya (*Dudleya multicaulis*)**

Many-stemmed dudleya is a perennial herb in the stonecrop family (*Crassulaceae*) that is a CNPS listed and MSHCP Narrow Endemic Species. The CNDDDB identifies a historic occurrence of this species within nonnative grassland habitat that is underlain by clay soils. Other areas along Segment W-4 that are occupied by thinly vegetated lenses of clay soils may support this species. Riverside County has

preserved a sizable population of the species within the Lake Mathews-Estelle Mountain preserve. However, other populations are threatened by urban and transportation development as well as landfill expansion (Lab 2001).

**Munz's onion (*Allium munzii*)**

Munz's onion is a federally listed endangered and state listed threatened bulbforming perennial herb in the lily family (*Liliaceae*). Biologists identified two populations of Munz's onion along Segment W-4 within clay soils associated with coastal sage scrub and nonnative grassland habitat (AMEC 2006). A CNDDDB historic occurrence is also located along this segment near these populations.

**San Diego ambrosia (*Ambrosia pumila*)**

San Diego ambrosia is an herbaceous perennial that belongs to the sunflower family (*Asteraceae*). It is a federally listed endangered, CNPS listed, and MSHCP Narrow Endemic Species. A historic occurrence of San Diego ambrosia is located along Segment C-6 within disturbed habitat. This population is in close proximity to the population of San Diego ambrosia that was identified within nonnative grassland habitat along Segments W-1 and W-10. Both occurrences are located within Altamont clay soils.

**Round-leaved filaree (*California macrophylla*)**

Round-leaved filaree is a CNPS listed and MSHCP Criteria Area Species in the geranium family (*Geraniaceae*) that is found throughout California, southern Oregon, and northern Baja California. A historic CNDDDB occurrence of this species is located along Segment W-4 within clay soils that are associated with coastal sage scrub habitat. Recent biological surveys along this segment did not identify this species; however, areas along this segment that occupy heavy clay soils with grassland or coastal sage scrub habitat may support this species.

**San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*)**

San Jacinto Valley crownscale is an annual herb in the goosefoot family (*Chenopodiaceae*). It is a CNPS listed and MSHCP Criteria Area Species. San Jacinto Valley crownscale was not identified along Segment C-6 during recent surveys; however, the CNDDDB identifies an occurrence of this species near this segment within alkali marsh habitat. Other areas along this segment, which are occupied by alkali soils, may support this species.

**Smooth tarplant (*Centromadia pungens* ssp. *laevis*)**

Smooth tarplant is an annual herb that is a CNPS listed and MSHCP Criteria Area Species that belongs to the sunflower family (*Asteraceae*). This species is endemic to southern California and is known to occur in Orange (extirpated), Riverside, San Bernardino, and San Diego Counties (County of Riverside 2003). A recent population of smooth tarplant was identified along this segment. This population was identified growing among San Diego ambrosia near the centerline of Segment W-1 as well as the terminus of Segment C-6. Both occurrences were within nonnative grassland habitat. This area is also occupied by Altamont clay soils, which are often associated with other sensitive species mentioned above (Entrix 2006).

## D.4.2 Applicable Regulations, Plans, and Standards

This section provides an overview of the applicable laws, regulations, and standards that influence the management of biological resources at the federal, state, and local levels. Although some of these laws do not apply to the Project they provide context in determining why some species are viewed as "sensitive" as well as what effects the proposed action will have on biological resources.



#### **D.4.2.1 Federal**

##### **Federal Endangered Species Act (ESA)**

The ESA was enacted to protect threatened and endangered (T&E) species from extinction throughout all or a portion of its known range. The ESA makes it unlawful for any governmental agency to harm a listed T&E species by organizing funding or carrying out actions that may affect the species itself or its known habitat. Doing so would be considered a “take” (i.e. harming, harassing, or wanton killing) of a listed species without permit. The United States Fish and Wildlife Service (USFWS) maintains the list of protected species as well acting as regulator and consultant.

##### **Migratory Bird Treaty Act (MBTA)**

The prohibition against “take” (i.e., killing, harassing, trapping, or attempting to do so) of native migratory bird species is provided for by the MBTA. The MBTA was enacted in response to the declines of migratory bird populations from uncontrolled commercial uses. The current act is an international effort to protect migratory birds and bird parts and includes eggs, young, nests, and feathers.

##### **Bald and Golden Eagle Protection Act**

The Bald and Golden Eagle Protection Act was enacted to preserve eagle populations from wanton killing. This Act makes it illegal to take bald and golden eagles or to trade in eagle parts, eggs, or feathers. Take has been broadly interpreted to include altering or disturbing nesting habitat (USFWS 2007).

##### **Clean Water Act**

The Clean Water Act regulates restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. The Clean Water Act authorizes the United States Army Corps of Engineers (USACOE) to require that a project obtain a permit if the project falls within the jurisdiction of the Clean Water Act.

#### **D.4.2.2 State**

##### **California Endangered Species Act (CESA)**

The CESA establishes legal protection for T&E plants and wildlife under the guidance of the CDFG. The CDFG also identifies species of concern as those who may become listed as threatened or endangered due to loss of habitat, limited distributions, and diminishing population sizes; or because the species is deemed to have scientific, recreational, or educational value.

##### **California Fish and Game Code, Sections 1600-1603**

This statute regulates activities that would “substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of a natural watercourse” that supports fish or wildlife resources. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. A Streambed Alteration Agreement must be obtained for any project that would result in an adverse impact to a river, stream, or lake. If fish or wildlife would be substantially adversely affected, an agreement to implement mitigation measures (MMs) identified by the CDFG would be required.

### **California Fish and Game Code, Sections 3503 and 3503.5**

CDFG Code Section 3503 specifies the following general provision for birds: “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season that results in the incidental loss of fertile eggs or nestlings, or otherwise leads to nest abandonment, is considered take. Disturbance that causes nest abandonment and/or loss of reproductive effort is also considered take by CDFG.

### **California Fish and Game Code, Sections 3511 and 5050**

CDFG Section 3511 and 5050 prohibits the taking and possession of birds and reptiles listed as “fully protected.” The administering agency is the CDFG.

### **CEQA Guidelines Section 15380**

CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria.

#### **D.4.2.3 Local**

##### **Native and Heritage Tree Ordinance**

The County of Riverside has several tree protection regulations such as the Riverside County Oak Tree Management Guidelines which regulate the removal of native oak trees (County of Riverside 1993); the County of Riverside, Roadside Tree Ordinance No. 12.08 which regulates the removal of trees within County highway rights-of-way (ROWs); and the County of Riverside, Open Space and Conservation Element, 1996, which requires that any future development in an identified sensitive vegetation area (including oak woodlands) must be evaluated individually and cumulatively for potential impact on vegetation (County of Riverside 1993).

##### **Western Riverside County Multiple Species Habitat Conservation Plan**

The Project is in the coverage area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), which serves as an HCP pursuant to Section 10(a)(1)(B) of the Endangered Species Act, as well as a National Communities Conservation Plan (NCCP) under the NCCP Act of 2001. The MSHCP, which was adopted by the County of Riverside on June 17, 2003, is one of several large, multi-jurisdictional habitat conservation planning efforts in Southern California with the overall goal of maintaining biological diversity within a rapidly urbanizing region. The MSHCP will allow Riverside County and participating cities to better control local land-use decisions and maintain a strong economic climate in the region while addressing the requirements of the ESA and CESA. The MSHCP provides a conservation area for 146 special status species, including federal and state listed endangered and threatened species, and provides incidental take permits for development projects that impact these covered species.

The MSHCP includes the following requirements:

- Site-specific focused surveys for Narrow Endemic Plant Species and for all public and private projects where appropriate habitat is present
- Surveys for Criteria Area Wildlife Species where suitable habitat is present

- Site surveys of riparian, riverine, and vernal pool resources in order to conserve these resources and the species that use them
- Habitat compensation measures in the event that sensitive habitat is removed or adversely affected during project construction
- Fee payment to the appropriate permit agency when work is conducted within certain jurisdictional areas of the MSHCP

The Applicant has stated that SCE is a Participating Special Entity under the MSHCP and is not required to participate in the plan. However, the Applicant is following all of the applicable provisions of the MSHCP voluntarily as specified in the impacts assessment below.

### **D.4.3 Project Impacts and Mitigation**

#### **D.4.3.1 Significance Criteria**

For the purposes of the following evaluation, the Project would cause a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Potential impacts are discussed according to the significance criteria above. Each impact is categorized according to the following classifications:

Class III – Less than significant impact without mitigation measures

Class II – Less than significant impact after mitigation measures are implemented

Class I – Significant impact and no feasible mitigation measures are available

#### **D.4.3.2 Applicant-Proposed Measures**

The following Applicant Proposed Measures (APMs) are submitted as part of the Project to reduce impacts to biological resources during project construction, maintenance, and operation. These APMs will be monitored along with any proposed mitigation measures (MMs) by the CPUC.

**BIO-APM 1:** A qualified biologist will conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of applicable environmental regulations, the need to adhere to the provisions of the regulations, the penalties associated with violating the provisions of the regulations, the general measures that are being implemented to conserve the species of concern as they relate to the Project, and the access routes to and project site boundaries within which the Project activities must be accomplished.

**BIO-APM 2:** Water pollution and erosion control plans shall be developed and implemented in accordance with Regional Water Quality Control Board (RWQCB) requirements.

**BIO-APM 3:** The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.

**BIO-APM 4:** Projects should be designed to avoid the placement of equipment and personnel within stream channels or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.

**BIO-APM 5:** Projects that cannot be conducted without placing equipment or personnel in wildlife habitats would be timed to avoid breeding and other sensitive seasons if these species are found to be present.

**BIO-APM 6:** Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, CDFG, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.

**BIO-APM 7:** Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris shall not be stockpiled within the stream channel or on its banks.

**BIO-APM 8:** A qualified biologist shall monitor clearing and grubbing, grading, excavation, and soil movement activities for the Project to ensure that all practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the Project footprint.

**BIO-APM 9:** The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to preexisting contours and revegetated with appropriate native species.

**BIO-APM 10:** Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the Project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

**BIO-APM 11:** The Permittee shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

**BIO-APM12:** All subtransmission poles would be designed to be raptor-safe in accordance with the Suggested Practices for Raptors on Power Lines: State of the Art in 1996 (Avian Power Line Interaction Committee 1996).

**BIO-APM13:** Prior to installation of the poles, a survey would be conducted to locate any raptor or raven nests occurring on the existing poles. If nests are found on poles planned for replacement or modification, the Applicant would suspend work until the nests are inactive.

**BIO-APM 14:** Construction work plans/schedules will be designed to minimize construction related noise in sensitive areas when feasible. In addition, all construction equipment will maintain functional exhaust/muffler systems and idling of motors shall be limited, except as necessary (e.g., concrete mixing trucks).

### D.4.3.3 Impacts Analysis

Project impacts on biological resources are divided into four elements: Valley-Ivyglen 115kV Subtransmission Line, Telecommunications System, Fogarty Substation, and Valley and Ivyglen Substation Improvements.

#### Impact BIO-1: Effects on Sensitive Biological Communities and Sensitive Species

Project impacts would be significant if they would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

#### *Valley-Ivyglen 115kV Subtransmission Line*

Effects on sensitive species during the construction phase of the Project would be potentially significant as they would result in permanent loss and temporary disturbance to sensitive plant and wildlife individuals and communities. Wildlife and vegetation communities would be impacted by the construction of the proposed subtransmission line are listed below by segment (Table D.4-4).

Table D.4-4 Valley-Ivyglen 115kV Subtransmission Line Impacts to Sensitive Species

Sensitive Species	Segment E-1	Segment C-1	Segment C-3	Segment C-4	Segment C-6	Segment W-1	Segment W-4	Segment W-8	Segment W-10
<b>Wildlife</b>									
Stephens' kangaroo rat	•	•			•				•
Orange-throated whiptail		•					•		
Western spadefoot toad						•			
Bells' sage sparrow	•	•							
Coastal California gnatcatcher	•	•							
Burrowing owl	•	•							
Southern California rufous-crowned sparrow	•								

Vegetation									
Long-spined spineflower						•			
Slender-horned spineflower							•		
Small-flowered morning glory							•		
Many-stemmed dudleya							•		
Munz's onion							•		
San Diego ambrosia						•			•
Round-leaved filaree							•		
San Jacinto Valley crownscale					•				
Smooth tarplant					•	•			

• = Species present during Biological Survey

Permanent loss of special status plant species involves long-term impacts associated with permanent project features (e.g., new transmission towers and roadways) that will remain throughout the life of the Project, as well as the potential direct mortality of individuals (incidental take) due to project construction. The Project would require the installation of 620 light duty steel (LDS) poles resulting in the permanent removal of all vegetation within the tower's footprint (approximately 6 feet in diameter). The overall impact on vegetation from the 620 poles would therefore be a total of just less than half an acre. Sensitive plant species are only found at intervals along the subtransmission line as shown in Figures D.4-1 through D.4-3; however, for the purposes of this impact analysis, we assume that the impact on sensitive species from utility pole installation could be up to the full half acre. By overestimating the acreage of potential impact in this way, we are making a conservative assumption of the foreseeable level of impact to sensitive vegetation. Additionally, if final design requires the removal of sensitive species, Mitigation Measure (MM) BIO-1e: requires reintroduction of the species in the same or the closest proximate habitat. This will ensure the project impacts to special status plant species are reduced to less than significant.

Further permanent impacts to special status plant species and communities could occur during the construction of the 16 miles of new unpaved roads required to access the project site. Direct permanent effects to biological resources include the permanent loss of habitat and the direct mortality of individuals. The construction of the 620 LDS poles and the 16 miles of new unpaved roads could affect the following plant species: small-flowered morning glory, Muntz's onion, San Diego ambrosia, San Jacinto Valley crownscale, thread-leaved brodiaea, round-leaved filaree, smooth tarplant, long spineflower, slender-horned spineflower, and many-stemmed dudleya. The status of these species along with their habitat requirements and potential to occur can be found in Table D.4-2. Table D.4-2 also lists other sensitive-species that may occur adjacent to the project area and could potentially be impacted by the Project. The amount of direct and indirect impacts to these species would be dictated by the final engineering of the Project. Impacts to the above referenced special status species would be reduced to less than significant by MMs BIO-1a and BIO-1e. These MMs have been designed reduce impacts to special status vegetation species through avoidance of these species during the final design phase of the Project.

The construction of the 620 LDS poles and the 16 miles of new unpaved roads could also impact approximately 18.80 acres of previously undisturbed Coastal Sage Scrub, an MSHCP covered species (AMEC 2006). These impacts would result from grading new access roads and clearing around new subtransmission line poles along Sections E-1, W-1, W-4, and W-10 during the construction phase of the Project. Compliance with the MSHCP requires mitigation for any net loss to coastal sage scrub habitat within the MSHCP area. Impacts to coastal sage scrub would be reduced to less than significant levels by

MMs BIO-1a, BIO-1e, and BIO-5a. These MMs focus on avoiding impacts to coastal sage scrub during the final design phase of the project as well as insuring the project is in compliance with the MSHCP.

Construction, operation, and maintenance of the Project could impact the following wildlife species and their habitats: western spadefoot toad, Stephen's kangaroo rat, Cooper's hawk, Southern California rufous-crowned sparrow, Bell's sage sparrow, burrowing owl, white-tailed kite, coastal California gnatcatcher, and orange-throated whiptail. The status of these species along with their habitat requirements and potential to occur can be found in Table D.4-3. Table D.4-3 also lists other sensitive species that may occur adjacent to the project area which could potentially be impacted by the Project. Impacts to special status wildlife species (individuals) will be reduced to less than significant levels by MMs BIO-2 and BIO-6. These MMs have been designed to reduce the impacts to special status wildlife species (individuals) through avoidance. MM BIO-1b requires that preconstruction surveys be conducted for burrowing-owls using the existing CDFG protocols. Impacts to special status species' habitats are covered above with respect to vegetation impacts.

Temporary disturbances to special status species include short-term impacts during the 18 month project construction phase. Construction will produce increased levels of noise, light, and dust within and adjacent to the project area. These impacts resulting from temporary construction staging areas, tensioning/splicing areas, removal of existing towers, improvements to existing access roads, and work at conductor tensioning/splicing and staging/laydown areas are all considered temporary impacts. Removal of old towers and replacement with new towers would require work in an area of approximately 100 feet in diameter centered on the proposed tower foundations.

Construction of the proposed subtransmission line would cause temporary impacts to migratory and resident bird populations by requiring the removal and trimming of trees and vegetation within the project footprint. Under certain conditions, if the Project impacts these birds there could be a "take" under the MBTA, CESA, as well as CFG codes 3503 and 3503.5. Construction activities, such as noise, human presence, and habitat alteration due to trimming or trees and clearing of native vegetation, can affect the nesting habits of the sensitive and migratory birds species listed above (Table D.4-2). However, temporary impacts to sensitive and migratory bird populations would be reduced to less than significant levels by adoption of MM BIO-1d. MM BIO-1d allows for project construction to occur either (1) before the nesting season of sensitive and migratory birds, or (2) during the nesting season using the appropriate exclusion zone as determined by a qualified wildlife biologist.

### **Telecommunications System**

Impacts to biological resources resulting from the construction of the telecommunications system would occur concurrently with the construction impacts resulting from the proposed subtransmission line with the exception of 3,000 feet of underground line to the three substation sites. Placing the telecommunications system underground will require a backhoe to dig an 18 inch wide by 30 inch deep trench. No sensitive species are found within the area where trenching for the telecommunication system would occur, resulting in no impact to sensitive species. MM BIO-1e would require preconstruction surveys for sensitive species will be conducted to ensure that temporary impacts to sensitive species resulting from clearing of native vegetation, creating fugitive dust, and through noise and human presence are reduced to less than significant levels. No impacts to sensitive species or communities are anticipated from the operation and maintenance of the telecommunications system.

### **Fogarty Substation**

Construction of Fogarty Substation could result in both temporary and permanent impacts to sensitive biological resources. Temporary impacts to sensitive species could occur due to noise and human presence during the construction phase of the Project, mainly affecting nesting birds.

Permanent impacts to a remnant coastal sage scrub community would occur during the grading of the site. The Project could also permanently impact a population of long-spined spineflowers present on the Fogarty site which is a CNPS list 1B.2 species and MSCHP Conservation Species. These impacts include inadvertent or accidental “take” by vehicles, clearing of vegetation, or the application of herbicides for fire protection and weed abatement purposes. Additionally, future plans for landscaping could conflict with the long-spined spineflower population. Although the proposed footprint of the Fogarty Substation has been designed to avoid direct grading and construction impacts to the population of long-spined spineflower, inadvertent or accidental impacts to the population could occur during construction. Impacts to the above long-spined spineflower shall be reduced to less than significant levels by MMs BIO-1a and BIO-1e. These MMs have been designed reduce impacts to special status vegetation species through avoidance of these species during the final design phase of the Project. Additionally, impacts to coastal sage scrub would be reduced to less than significant levels by MMs BIO-1a, BIO-1e, and BIO-5a. These MMs focus on avoiding impacts to coastal sage scrub during the final design phase of the Project as well as insuring the Project is in compliance with the MSHCP.

### **Valley and Ivyglen Subtransmission Improvements**

The Ivyglen Substation is surrounded by Riversidean alluvial fan sage scrub, coastal sage scrub, and developed and disturbed habitat; however, no sensitive species are found within the project footprint. Temporary impacts on sensitive species could occur as a result of upgrades to the existing facility during project construction as a result of noise, fugitive dust, and human presence. Wildlife species such as the burrowing owl, coastal California gnatcatcher, Bell’s sage sparrow, Southern California rufous-crowned sparrow, orange-throated whiptail, San Diego horned lizard, and Stephen’s kangaroo rat are know to use habitats similar to those found adjacent to the project site and may be temporarily affected by construction. However with the implementation of MMs BIO-1a, BIO-1e and BIO-5a no further impacts to sensitive species would result from project operation and maintenance.

In summary, with the implementation of MMs BIO-1a through BIO-1e and BIO-5a the impacts to sensitive species would be reduced to less than significant levels (Class II).

### ***Mitigation Measures for Impact Bio-1***

Class II impacts on biological resources resulting from project construction, operation, and maintenance shall be reduced to less than significant my implementing the following MMs:

**MM BIO-1a (Environmentally Sensitive Areas):** The Applicant shall reduce impacts to the habitat of the sensitive species listed in Tables D.4-2 and D.4-3 by engineering the project so that it minimizes its impacts to sensitive species. This can be accomplished by siting permanent project elements (i.e., roads and poles) away form known locations of special status species and communities. However, where this is not feasible, environmentally sensitive areas such as rare plant populations or specific breeding habitat will be identified in the field to minimize the possibility of inadvertent encroachment using the following avoidance and MMs:

- a. Flagging or otherwise marking sensitive plant species will be done by a trained local botanist. Construction crews will avoid direct or indirect impacts to these flagged areas. Construction personnel shall be instructed to avoid intrusion beyond these marked areas.
- b. Monitoring the known locations of special status plant populations that might be found prior to or during the construction period, using a trained professional botanist. Monitoring while construction is taking place in the vicinity of the special status plant populations and for one year following construction to assess the effectiveness of protection measures.



**MM BIO-1b (Burrowing owls):** If breeding burrowing owls are found during the pre-construction surveys, the burrows shall be flagged and an appropriate construction buffer, as determined by a qualified wildlife biologist, will be established to avoid direct and indirect impacts to active nests. If the appropriate buffer cannot be maintained or if non-breeding burrowing owls are found during the pre-construction surveys, the CDFG will be contacted by the Applicant's biologist to determine relocation protocols and additional mitigation requirements.

**MM BIO-1c (Noise Control):** The Applicant shall avoid impacts to migratory and sensitive bird species protected under federal or state regulations by ensuring that construction or operational noise shall not exceed ambient levels during the nesting period. This shall be done through careful work scheduling and having properly functioning mufflers on construction vehicles to ensure that migratory and nesting birds are not impacted by construction noise, no vehicles, chain saws, or heavy equipment shall be operated within the exclusion zone of 250 feet until the nesting season is over, or until a qualified wildlife biologist has determined that nesting is finished and the young have fledged. If a certified wildlife biologist determines that any particular construction, operation, or maintenance activities pose a high risk of disturbing an active nest, the biologist will recommend additional, feasible measures to minimize the risk of nest disturbance. If work activities are found to result in harm to nesting birds, destruction of an active nest, or nest abandonment prior to fledging, the biologist will report this to the CDFG and USFWS.

**MM BIO-1d (Pre-Construction Nesting Bird Surveys):** To avoid the impacts to active nests (with eggs or young) of any protected bird, the Applicant shall implement one of the following:

- a. Conduct all construction activity (including vegetation pruning or removal) during the non-breeding season (generally between August 16 and February 28) for most special status and non-special status migratory birds, and conduct pre-construction surveys in advance of construction if construction is scheduled during the nesting season (roughly February through August).
- b. If construction activities are scheduled to occur during the breeding season (generally between February or March through August), a qualified wildlife biologist will conduct pre-construction focused nesting surveys prior to any ground disturbing activity, tree trimming or vegetation removal activities.

**MM BIO-1e (Special Status Plant Species):** The limits of populations of sensitive plant species shall be flagged or otherwise marked by a certified botanist to ensure construction crews will avoid direct or indirect impacts to these populations. Construction personnel shall be instructed to avoid intrusion beyond these marked areas.

The known locations of special status plant populations within the project footprint found prior to or during the construction period will be monitored using a qualified botanist. Monitoring will occur during ground disturbing construction activity in the vicinity of the special status plant populations to assure the effectiveness of protection measures. If impacts to the known location of the sensitive plant species are unavoidable, a certified botanist will be consulted to determine the best method for preservation of the affected population. After construction is complete, the affected species will be reintroduced to its original location. If the original location is made unsuitable by project construction, the populations will be relocated to the most proximate feasible location as determined by the certified botanist. The Applicant shall show that the reintroduction reaches at least a 1:1 ratio of original preconstruction and postconstruction populations two years after Project completion, and shall submit a post-construction report/technical memo to CPUC verifying the success of the reintroduction.

**MM BIO-1f (Special Status Terrestrial Species):** Preconstruction surveys will be conducted by a certified wildlife biologist for all terrestrial special status species as defined by Table D.4-2. The locations of any sensitive species, and their habitats, shall be marked and avoided during final project design and construction. A qualified wildlife biologist will be on-site to conduct on-site biological monitoring for sensitive wildlife species including, but not limited to, those found in Table D.4-2.

In summary, with the implementation of MMs BIO-1a through 1f, the Project's permanent and temporary biological resources impacts would be reduced to less than significant levels (Class II).

### **Impact BIO-2: Wetlands and Riparian Habitats**

Significant impacts to wetlands and/or Riparian habitats would occur if the Project has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Substantial impacts could also occur if the project has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS.

Direct permanent impacts on wetland and riparian habitat may occur as a result of grading of new roads and clearing of existing vegetation, which in turn exposes topsoil to weathering. Weathering of topsoil in the form of erosion can remove topsoil necessary for plant growth both in the graded areas and in lower areas affected by increased runoff. The eroded soil can be deposited as silt and alluvium in the drainages. This impact can be exacerbated by the removal of local vegetation within these communities. Further permanent, direct impacts to wetlands and riparian habitats may result from placing project elements within these communities. These significant permanent impacts shall be reduced to less than significant levels by MMs BIO-2a through -2d. These MMs focus on avoidance of impacts during the design and construction phases of the Project, as well as the adoption of construction techniques that will reduce the potential for significant impacts to less than significant levels (Class II).

### ***Mitigation Measures for Impact BIO-2***

Class II impacts on wetlands and riparian habitats resulting from project construction, operation, and maintenance can be reduced to less than significant by implementing the following MMs:

**MM BIO-2a (Wetlands Avoidance and Restoration):** A wetland delineation per the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (USACE 1987) will be conducted prior to construction if it is determined that there is any likelihood of a potential impact to a wetland. The delineation will use a three-parameter approach that includes an examination of vegetation, soils, and hydrology to determine the presence of wetlands. A wetland report will be prepared and submitted to the USACE for verification.

Through this process, final calculations of jurisdictional wetland areas present in the project study area will be obtained for project permitting. Wetlands and aquatic resources such as intermittent and perennial creeks, drainages, and swales that occur within the ROW will be denoted as environmentally sensitive areas and will be avoided during construction to the degree practicable. Many of the larger creeks flow through culverts beneath existing roads and they will not be directly impacted. However, smaller creeks and resources may flow across the ROW and could be affected. Where avoidance of riparian and wetland areas is not feasible and work is required within jurisdictional wetlands, drainages, and other wetland habitats, the Applicant would obtain and comply with all necessary USACE and CDFG permits under the CWA and CDFG 1600 regulations. Adherence to any applicable regulatory requirements would reduce any potential impacts to less than significant levels.

Additionally, potential hydrologic impacts would be minimized through the use of BMPs such as water bars, silt fences, staked straw bales, and mulching and seeding of all disturbed areas. These measures will be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water.

**MM BIO-2b (Erosion Control):** The BMPs included in the SWPPP will be implemented during construction to minimize impacts associated with erosion. BMPs will include the installation of sediment and erosion control structures to protect biological resources, including streams, as well as roadways and adjacent properties. Watering for dust control during construction will also be employed.

**MM BIO-2c (Hydrologic Impacts):** Potential hydrologic impacts would be minimized through the use of BMPs such as water bars, silt fences, staked straw bales, and mulching and seeding of all disturbed areas. These measures will be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water.

**MM BIO-2d (Loss of Habitat):** Mortality of individual species associated with wetland and riparian habitats will be reduced to less than significant by adoption of mitigations measure pertaining to sensitive species.

### **Impact BIO-3: Migratory Wildlife**

Impacts to Migratory wildlife are considered significant if they 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.

Permanent direct impacts to terrestrial species could occur due to the construction of 16 miles of new roadways within the project area. Roadways act as barriers to movement, sometimes creating genetically isolated populations. Due to the infrequent use of these roadways their effect on the movement of any native or migratory species is expected to be less than significant (Class III).

Project construction may temporarily effect the movement of native and migratory species. Impediments to movement will mostly occur to nesting birds (see Impact BIO-1). Other impacts to migratory wildlife would be less than significant (Class III).

### **Impact BIO-4: Local Policies**

Any conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, would be seen as a significant impact.

Permanent direct impacts to local trees will occur during project construction. Removing local trees will be necessary to install new poles in areas where the proposed route passes through upland or riparian vegetation. Additional tree trimming or removal will be required along access roads and at some staging areas and pull sites. To reduce these impacts, many areas containing trees, such as riparian drainages and upland vegetation communities, will be spanned, eliminating the need for tree removal. However, some trees might be trimmed to protect the subtransmission lines and to reduce fire danger. Removing trees from protected communities, such as oak woodlands, would be done in a way that minimizes the effect on nesting birds (see MM BIO-1d) in accordance with the local tree removal ordinance. Nonnative trees, such as the Peruvian peppertrees and Eucalyptus are not protected by the Riverside County tree ordinance. Significant impacts to native trees would be reduced to less than significant levels by MM BIO-4a, which requires that a Tree Removal Permit be obtained prior to construction activities (Class II).

### **Mitigation Measures for Impact BIO-4**

Class II impacts to local habitats resulting from project construction, operation, and maintenance would be reduced to less than significant by implementing the following MM:

**MM BIO-4a (Tree Removal Permitting):** Obtain a Tree Removal Permit from the County of Riverside. The County of Riverside, Roadside Tree Ordinance 12.08 requires permits for tree removal within county highway ROWs (County of Riverside 2004). In addition, the County of Riverside requires that any future development in an identified sensitive vegetation area (including oak woodlands) must be evaluated individually and cumulatively for potential impact on vegetation (County of Riverside 1993). Mitigation will be coordinated, as required, with the appropriate public and resource agencies once tree removal permits or approvals for lost significant trees are obtained. Mitigation for lost trees may not be implemented within the ROW due to fire safety concerns and instead may be implemented in an alternative agency approved location.

### **Impact BIO-5: Conservation Plans**

A significant impact would result if the Project is found to be in conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

As outlined in the MSHCP, surveys for MSHCP criteria species were conducted during project planning and findings from the surveys are included in this document. Sensitive-species covered by the MSHCP are identified in Tables D.4-2 and D.4-3 along with habitat requirements and the potential for that species to occur within or adjacent to the project area. Impacts to MSHCP covered species would be reduced to less than significant levels by MM BIO-5a. MM BIO-5a requires that the project comply with all regulations and policies as outlined in the MSHCP.

**MM BIO-5a (Western Riverside County MSHCP Compliance):** The Applicant will comply with all regulations and policies outlined in the MSHCP. This will include but is not limited to:

- a. The payment of Local Development Mitigation Fees and other relevant fees as set forth in Section 8.5 of the MSHCP
- b. Compliance with the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process or equivalent process to ensure application of the criteria and thus satisfaction of the local acquisition obligation
- c. Compliance with the policies for the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools set forth in Section 6.1.2 of the MSHCP
- d. Compliance with the policies for the Protection of Narrow Endemic Plant Species set forth in Section 6.1.3 of the MSHCP
- e. Compliance with survey requirements as set forth in Section 6.3.2 of the MSHCP
- f. Compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the MSHCP
- g. Compliance with the BMPs and the siting and design criteria as set forth in Section 7.0 and Appendix C of the MSHCP

## D.4.4 Cumulative

### Impact: Contribute to Cumulative Impacts on Biological Resources

Riverside County is expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve many large scale construction projects which may encroach on biological resources, potentially impacting sensitive communities, special status species, and biological diversity.

For the purpose of this analysis, the geographic scope will comprise the habitat areas directly and indirectly affected by the construction and operation of the Project. As seen in Table D.4-4, the Project passes through various sensitive habitats, impacting both wildlife and vegetation. Urbanization and development in the area impact the ability of certain plant and animal species to forage, breed, and develop in their natural habitat. A cumulative impact would occur if the Project substantially contributed to the cumulative degradation of biological resources caused by recent, current, and planned development.

The Project is located within the coverage area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is a conservation planning effort with the overall goal of maintaining biological diversity in rapidly urbanizing areas and provides a conservation area for 146 special status species, requiring incidental take permits for projects impacting these species. The Project would contribute to significant cumulative impacts to biological resources if it violated a conservation plan such as the MSHCP. MM BIO-5a requires that the Project comply with all MSHCP regulations, including but not limited to the payment of relevant fees, compliance with acquisition processes, and compliance with policies protecting various plants and animals. In following all the regulations set forth by the MSHCP, the Project would not substantially contribute to cumulative impacts to biological resources in violation of conservation plans (Class II).

Construction and operation of the Project can potentially result in the permanent loss of or temporary disturbance to sensitive plant and wildlife communities through grading, drilling, clearing brush, or other construction and maintenance activities. To protect sensitive biological resources, MM BIO-1a requires that a botanist precede construction crews and mark sensitive areas so that they might be avoided by construction crews and protected from construction activities. The same measures will be taken to protect special status plant species, special status terrestrial species, and the burrowing owl as required by MM BIO-1e, -1f, and -1b, respectively. Monitoring of these areas will continue for a year following the completion of the Project; should any significant impacts occur, the MMs include provisions for relocation of disturbed species and reintroduction of impacted species. Construction activities may also impact avian species by disturbing active nests trimming trees or removing vegetation. MM BIO-1d mandates that either construction activities be limited to non-breeding season or a certified wildlife botanist conduct a pre-construction focused nesting survey. Additionally, construction noise may impact both migratory and nesting birds; MM BIO-1c regulates ambient noise levels to minimize the impact to birds nesting within or passing through construction areas. With the implementation of MMs BIO-1a through 1f, construction of the Project would not substantially contribute, either directly or through habitat modification, to adverse cumulative effects on candidate, sensitive, or special status species (Class II).

Construction of the Project may damage wetlands and riparian habitats through grating and clearing vegetation, exposing topsoil to weathering, impacting drainage, and impeding plant growth. Additionally, the placement of project components may permanently damage wetlands and riparian habitats. In a rapidly developing area, these impacts would contribute to the cumulative degradation of these habitats. MM BIO-2a minimizes the impact of construction and operation of the Project on wetlands by avoiding

sensitive areas and requiring the restoration of disturbed areas. This measure will be implemented in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual. When sensitive areas cannot be avoided during construction, pursuant to MM BIO-2b and -2c, the Applicant will minimize the effects of erosion and the hydrologic impacts through such measures as the installation of sediment control structures and the use of water bars, silt fences, stalked straw bales, and mulching in disturbed areas. By avoiding wetlands and riparian habitats where possible and employing prevention and preservation measures when necessary, the Project will not substantially contribute to the cumulative damage to these habitats (Class II).

The Project falls under the jurisdiction of local policies and ordinances including the Roadside Tree Ordinance. In order to install TSPs and LDS poles, the Project requires the construction of access roads and the removal of vegetation at construction sites, permanently and directly damaging trees. The DEIR requires the Applicant to adopt MM BIO-4a and obtain a permit for removal prior to construction. By complying with the permit process, the Project will not significantly contribute to the cumulative impact on local tree populations (Class II).

Composite development has the potential to interfere with the movement of migratory animals by physically interfering with the migratory corridor. New roadways, construction activities, and introduced structures can act as barriers to migration. The Project would require the installation of roadways for maintenance purposed. These roadways would be infrequently used and therefore would not interfere significantly in migration patterns. Construction activities could potentially impact migration patterns but are considered temporary. Given the distribution of the structures and the low volume of traffic required to maintain the Project, the Project would not significantly contribute to cumulative obstacles to migratory wildlife (Class III).