

# Section 3.4

### 3.4 BIOLOGICAL RESOURCES

This section describes existing conditions and the potential biological resource impacts associated with the construction and operation of the Proposed Project and alternatives.

#### 3.4.1 Existing Conditions

##### 3.4.1.1 Project Area Description

The Proposed Project is located in northwestern Riverside County and southwestern San Bernardino County. Elements of the Proposed Project are located in the incorporated Cities of Beaumont, Banning, Yucaipa, and Redlands as well as unincorporated Riverside County and San Bernardino County. The project area is situated in a valley formed by the San Bernardino Mountains to the north, and the San Jacinto Mountains to the south. This is a transitional area that supports flora and fauna representative of the coastal California environment.

Extensive riparian habitat associated with San Timoteo Creek is found in the project area and the Union Pacific rail line is parallel to much of this drainage. An area of complex topography known as The Badlands exists south of this riparian habitat, and the foothills of the San Bernardino Mountains characterize the northern portion of the project area. The project elements proposed at the eastern portion of the project area traverse areas of intense development associated with the cities of Beaumont and Banning, interspersed with areas of agricultural land use.

##### 3.4.1.2 Methods

Focused biological surveys of the project elements were conducted in the spring/summer of 2005 and 2006. All project elements were surveyed on foot or driven as deemed necessary (i.e. large tracts of developed lands were driven). Botanical surveys were conducted within project component footprints, as well as within 500 feet of project elements to map vegetation communities and identify special management plant species. U.S. Fish and Wildlife Service (USFWS) protocol presence/absence surveys for least Bell's vireo (*Vireo bellii pusillus*, federally and State listed as Endangered [FE, SE]) and southwestern willow flycatcher (*Empidonax traillii extimus*, FE, SE) were conducted in appropriate habitat within 500 feet of potential project impacts areas.

**3.4.1.2.1 Botanical Surveys.** Botanical surveys were conducted in 2005 and 2006 (Table 3.4-1), and were focused on mapping of vegetation communities and detecting special management plant surveys within the project area. Before proceeding with the botanical surveys, a preliminary site assessment was performed to familiarize biologists with the project area.

**3.4.1.2.2 Vegetation Mapping.** Vegetation communities were identified according to the appropriate Holland code (1986), and delineated with the aid of a global positioning system (GPS) unit accurate to within 5 meters, 1:4800 scale aerial photos, 1:24000 scale topographical maps, and a digital camera. Vegetation was mapped at both Site 33 (Preferred Site) and Site 38 (Alternate Site), and within 500 feet of the linear project elements. The results of the vegetation mapping are presented in Figures 3.4-1 through 3.4-10.

**TABLE 3.4-1  
BOTANICAL SURVEY DATES AND PURPOSE**

<b>Date</b>	<b>Purpose</b>
24-May-05	Preliminary Site Assessment
25-May-05	Botanical Survey
26-May-05	Botanical Survey
27-May-05	Botanical Survey
18-Apr-06	Preliminary Site Assessment
16-May-06	Botanical Survey

**3.4.1.2.3 Special Management Plant Surveys.** Special management plant surveys were conducted in April and May 2005 during seasonally favorable phases for observing floral diversity in the western Riverside region. This timeframe was chosen because the later blooming plants are showing the first flowers and the earlier blooming species are still in good fruiting-senescent condition to aid identification. Special management plant populations were documented with a GPS unit accurate to within 5 meters, 1:4800 scale aerial photos, 1:24000 scale topographical maps, and a digital camera. These locations were then plotted on Figures 3.4-1 through 3.4-10. Although special management plant surveys were conducted throughout the project area, surveys were intensified at unique microhabitats that potentially support more than one special management plant species, such as mesic alluvial terraces, vernal pools, alkaline meadows and seeps, clay bog deposits, rocky-scrub slopes and mesic-shady canyon exposures.

Species with the potential to occur within the project area were identified before special management plant surveys were conducted, and are listed in Table 3.4-2. These species were identified based on a California Natural Diversity Database (2005) search, the known ranges of certain species, and habitat suitability. Suitable habitat exists in the project area for three federally and State-listed plant species covered under the Western Riverside County Multiple Habitat Conservation Plan (MSHCP), including Nevin's barberry (*Berberis nevinii*), slender-horned spineflower (*Dodecahema leptoceras*), and Santa Ana River woollystar (*Eriastrum densifolium* var. *sanctorum*). Other special management plants covered under the MSHCP (California Native Plant Society [CNPS] List 1B) recently collected near the project area

TABLE 3.4-2  
 POTENTIALLY OCCURRING SPECIAL MANAGEMENT PLANT SPECIES WITHIN THE PROJECT AREA

Common Name	Scientific Name	Legal Status	MSHCP Status	CNPS Listing	Habitat
Nevin's barberry	<i>Berberis (=Mahonia) nevinii</i>	FE, SE	Covered	IB	Sandy to gravelly soils; washes, chaparral, <650 m elev.
Slender-horned spineflower	<i>Dodecahema leptoceras</i>	FE, SE	Covered	IB	Alluvial sand in coastal scrub, 200-700 m elev.
Santa Ana River woollystar	<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	FE, SE	Covered	IB	Gravelly River beds, <500 m elev.
Munz's onion	<i>Allium munzii</i>	none	Covered	IB	Grassy openings in coastal sage scrub, 300-900 m elev.
Plummer's mariposa lily	<i>Catolochortus plummerae</i>	none	Covered	IB	Dry, rocky chaparral, yellow pine forest, <1700 m elev.
Smooth tarplant	<i>Centromadia pungens</i> ssp. <i>laevis</i>	none	Covered	IB	Grasslands, meadows, seeps, riparian woodlands, <400 m elev.
California bedstraw	<i>Galium californicum</i> ssp. <i>primum</i>	none	Covered	IB	Shade, lower edge of pine belt, chaparral, 1350-1700 m elev.
Parry's spine flower	<i>Chorizanthe parryi</i> var. <i>parryi</i>	none	Covered	IB	Sandy areas in coastal or desert scrub, 300-1200 m elev.
Chaparral sand-verbena	<i>Abronia villosa</i> var. <i>aurita</i>	none	Not Covered	IB	Sandy areas in coastal sage scrub, chaparral, <1600 m elev.
California muhly	<i>Muhlenbergia californica</i>	none	Covered	IB	Stream banks, canyons, moist ditches, 100-2000 m elev.
Yucaipa onion	<i>Allium marvinii</i>	none	Covered	IB	Chaparral openings, clay soils, 700-1100 m elev.
Jaeger's milk-vetch	<i>Astragalus pachypus</i> var. <i>jaegerii</i>	none	Covered	IB	Rocky or sandy areas in chaparral, coastal sage scrub or grasslands, 500-750 m elev.
Mesa horkelia	<i>Horkelia cuneata</i> ssp. <i>puberula</i>	none	Not Covered	IB	Dry, sandy coastal chaparral 70-700 m elev.
San Bernardino aster	<i>Symphytotrichum defoliatum</i>	none	Not Covered	IB	Marshes, meadows, seeps, mesic grasslands, 2-2100 m elev.
Brand's phacelia	<i>Phacelia stellaris</i>	none	Covered	IB	Coastal sage scrub, dunes, <400 m elev.
Salt spring checkerbloom	<i>Sidalcea neomexicana</i>	none	Not Covered	2	Alkaline springs and marshes <1500 m elev.
Mud nama	<i>Nama stenocarpum</i>	none	Covered	2	Intermittently wet areas <500 m elev.
Wright's trichocoronis	<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	none	Covered	2	Moist places, including meadows, seeps, marshes, vernal pools, riparian habitat, <450 m elev.
Cleveland's bush monkeyflower	<i>Mimulus clevelandii</i>	none	Covered	4	Chaparral, lower mountain coniferous forest, 800-2000 m elev.

Note: FE=federally listed as Endangered SE=State listed as Endangered

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include Plummer's mariposa lily (*Calochortus plummerae*) and Parry's spine flower (*Chorizanthe parryi* var. *parryi*). Potentially-occurring special management plants with unverified historic records include Yucaipa onion (*Allium marvinii*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), mesa horkelia (*Horkelia puberula*), and Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*).

**3.4.1.2.2 Wildlife Surveys.** Focused avian surveys and habitat assessments were conducted in the spring and summer of 2005 and 2006 within the project area with the exception of the areas where fiber optic equipment would be installed on or within existing facilities. Incidental observations of other wildlife species were documented during the avian and other surveys throughout the project area. Wildlife species were detected visually with the aid of 8X42 or similar power binoculars, aurally, or from the presence of "sign" (i.e., scat, track, feathers, etc.). Special status species locations, including both federal and state listed species, and California Species of Special Concern [SSC] were recorded using hand-held GPS units accurate to within 5 meters. These locations were then plotted on aerial photos using GIS software. Habitat assessments were conducted using the California Natural Diversity Database (2005) and current aerial photos to determine if historical locations were present on habitat that is still intact.

Focused surveys for other special status wildlife species known from the region, including Los Angeles pocket mouse (*Perognathus longimembris brevinasus*, SSC), and Stephens' kangaroo rat (*Dipodomys stephensi*, Federally listed as Endangered [FE], and State listed as Threatened [ST]) were not conducted. Suitable habitat for these species does not occur within the impact footprints of the proposed and alternative substations; however, based on historical locations, potential habitat for these species may exist within the linear project elements (CNDDDB 2005, Figures 3.4-1 through 3.4-10). Onsite habitat assessment and surveys for Stephens' kangaroo rat and Los Angeles pocket mouse were not conducted along the linear project elements because the impact footprint for the linear elements is not defined. Onsite habitat assessment and subsequent surveys would be conducted, as required, as impact footprints are defined. Surveys for Stephens' kangaroo rat are not required under the MSHCP. San Timoteo Creek is considered a survey area for Los Angeles pocket mouse and San Bernardino kangaroo rat as described in section 6.3.2 of the MSHCP. However, surveys for these species are not required at the substation sites, because suitable habitat for these species does not exist within the proposed and alternative substation impact footprints.

According to the MSHCP, the existing available information about burrowing owl (*Athene cunicularia*, SSC) is insufficient to classify it as a covered species. Therefore, the MSHCP has additional survey requirements for projects within potential burrowing owl habitat (see section 6.3.2 *Additional Survey Needs and Procedures* of the MSHCP). General surveys and habitat assessments for burrowing owls and other wildlife species were conducted in the study area, but MSHCP protocol burrowing owl surveys were not conducted. No Burrowing owls or potential burrows were observed during the biological surveys in 2005 and 2006.

Burrowing owls may exist along portions of the linear project elements, and additional burrowing owl surveys may be required as impacts for the linear project elements become more defined.

**3.4.1.2.3 Avian Surveys.** USFWS protocol surveys for least Bell's vireo and southwestern willow flycatcher were conducted in 2005 and 2006 within the riparian habitat associated with substation Sites 33 and 38. Additional surveys were conducted to determine if least Bell's vireo occupies the riparian areas bordering the proposed subtransmission line route. The methods for each of these surveys are outlined below.

**3.4.1.2.4 Least Bell's Vireo Surveys.** Least Bell's vireo surveys were conducted at Site 33 and Site 38 in accordance with the USFWS Survey Guidelines (USFWS), 2001). Least Bell's vireo territories were determined if individuals were present in the same general area over the course of at least three protocol surveys. Additional surveys were conducted to determine if least Bell's vireo occupies the riparian areas bordering the proposed subtransmission line route. These additional surveys were conducted for general documentation purposes and did not follow the USFWS protocol.

**3.4.1.2.5 Southwestern Willow Flycatcher Surveys.** The southwestern willow flycatcher surveys were conducted in accordance with the current USFWS protocol (rev. 2000). The five surveys required by USFWS protocol to determine the presence of southwestern willow flycatchers involves an initial search during the period when willow flycatchers are most vocal, with follow-up surveys during a time period when only the southwestern willow flycatcher would be expected and before the southward migration of the other subspecies begins. Determination of subspecies status of any willow flycatchers detected could not be determined on any one visit unless evidence of breeding was observed. Without direct evidence of breeding behaviors, the presence of the southwestern willow flycatcher could be presumed only if a confirmed territory was occupied on multiple survey visits and during visits in period three. Presence of willow flycatchers during period three would indicate that the birds are present after all migrant northwestern willow flycatchers have already moved through the area. In some cases, least Bell's vireo surveys were conducted in conjunction with the southwestern willow flycatcher surveys.

### **3.4.1.3 Vegetation**

**3.4.1.3.1 Vegetation Community Descriptions.** A total of 16 different vegetation communities (or habitats) were identified during 2005 field surveys. Vegetation communities were identified in accordance with Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986). Descriptions of these habitats are found below, with examples of where representative patches are found within the project area. Vegetation communities mapped to within 500 feet of the Proposed Project elements can be seen in Figures 3.4-1 through 3.4-10.

**3.4.1.3.2 Developed.** Developed areas support no native vegetation because of the presence of buildings or roads. The level of soil disturbance is such that only the most ruderal plant species would be expected. Ornamental plant species can be included under the category, especially in the large developments present in the eastern portion of the project area.

**3.4.1.3.3 Disturbed/Ruderal.** Disturbed/ruderal habitat is any land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities. The species composition and site conditions in this community are not characteristic of the disturbed phase of other plant associations within the project area. Such habitat is typically found in vacant lots, roadsides, construction staging areas, or abandoned fields, and is dominated by nonnative annual species and perennial broadleaf species. Typical plant species found within the project area includes Russian thistle (*Salsola tragus*), sweet fennel (*Foeniculum vulgare*), mustards (*Brassica* spp.), thistles (*Carduus pycnocephalus*, *Silybum marianum*), among others. This is the most common habitat type in the project area, and is found throughout.

**3.4.1.3.4 Chamise Chaparral.** Chamise chaparral is characterized by nearly monotypic stands of chamise (*Adenostoma fasciculatum*) to 1-3 m (3-9 ft) in height. Additional shrub species, such as mission manzanita (*Xylococcus bicolor*) and our Lord's candle (*Hesperoyucca whipplei*), may be present, but contribute little to the overall cover. In general, the herbaceous component of this association is largely lacking. Chamise chaparral occurs on xeric slopes and ridges, and is found on shallower, drier soils or at somewhat lower elevations than southern mixed chaparral. This vegetation type occurs throughout the project area, with a relatively large stand present along the northerly 115 kV line route alternative (mileposts 0.8-2.0, Figure 3.4-1).

Areas of disturbed chamise chaparral are also contained in the study area. These areas contain large amount of chamise, but have been disturbed and contain large amounts of exotic species such as mustards and brome grasses (*Bromus* spp.). Many areas of disturbed chamise chaparral have resulted from heavy use by off-road vehicles in the western portions of the Beaumont area. This habitat type can also be present after a burn event. Examples of this habitat type in the project area can be found at the western end of the proposed subtransmission line route (mileposts 0-0.2, Figure 3.4-1).

**3.4.1.3.5 Southern Mixed Chaparral.** Southern mixed chaparral tends to occur on steeper, more mesic north-facing slopes than chamise chaparral. This vegetation community type is characterized by relatively high species diversity. Typical species include chamise, Eastwood manzanita (*Arctostaphylos glandulosa* ssp. *glandulosa*), scrub oak (*Quercus dumosa*), holly-leaf cherry (*Prunus ilicifolia*), toyon (*Heteromeles arbutifolia*), and winter currant (*Ribes indecorum*). The understory component is generally better-developed in this association than in chamise chaparral, and may include species such as mariposa-lily (*Calochortus* spp.), soap plant (*Chlorogalum* spp.), and bedstraw (*Galium* spp.), among others. In the project area, this habitat type exists at the western end of the proposed subtransmission line route (mileposts



0.6, 1.0, 1.6), and near the western end (near mileposts 0.8-1.6) of the northerly 115 kV line route alternative (Figure 3.4-1).

**3.4.1.3.6 Coastal Sage Chaparral.** This mixed community includes both drought-deciduous sage scrub species and woody chaparral species, and may occur as a result of burn events. Total vegetative cover includes roughly equal amounts of both scrub and chaparral species. Characteristic dominant species include chamise, California sagebrush (*Artemisia californica*), ceanothus (*Ceanothus* spp.), black sage (*Salvia mellifera*), and poison-oak (*Toxicodendron diversilobum*). Examples of this habitat type exist on ridges north of substation alternative site 38 and the western end (near milepost 0.3) of the proposed subtransmission line route (Figure 3.4-1).

**3.4.1.3.7 Scrub Oak Chaparral.** Scrub oak chaparral is a dense, evergreen chaparral association that approaches 6 m (20 ft) in height and is dominated by scrub oak. This habitat occurs on more mesic sites than other chaparral associations and often at slightly higher elevations. These more favorable sites often allow scrub oak chaparral to recover from fire more quickly than other chaparral types. Additional shrub species found in scrub oak chaparral include Eastwood manzanita, toyon, mountain-mahogany (*Cercocarpus betuloides*), and holly-leaf redberry (*Rhamnus ilicifolia*). Understory species include poison-oak and bedstraw (*Galium* sp.), among others. Examples of this habitat type are concentrated in the western ends of the study area within the proposed substation site, near mileposts 0.9-1.0 of the northerly 115 kV line route alternative (Figure 3.4-1) and near mileposts 3.7-5.9 of the proposed subtransmission line route (Figure 3.4-8, 3.4-9).

**3.4.1.3.8 Riversidean Sage Scrub.** Riversidean sage scrub (RSS) is a form of coastal sage scrub found in mostly xeric habitats mainly in Riverside County, California. RSS found within the project area had a high coverage of buckwheat (*Eriogonum fasciculatum*), California sagebrush and non-native brome grasses (*Bromus diandrus*; *B. madritensis* ssp. *rubens*) with relatively low diversity of other species. Examples of RSS are found at mileposts 1.9, 2.6, and 2.9 of the proposed subtransmission line route (Figure 3.4-9).

Areas of disturbed RSS also exist in the study area. These areas had a similar species composition to RSS, but have been disturbed in the past, and contain a higher coverage of non-native grasses and ruderal species such as mustards. Disturbed RSS is present on the northern portion of Site 38 Substation Alternative.

**3.4.1.3.9 Riversidean Alluvial Fan Sage Scrub.** Riversidean alluvial fan sage scrub (RAFSS) is a form of RSS found along ephemeral washes and on alluvial fans. In the project area, RAFSS is characterized by near monotypic stands of buckwheat. RAFSS is found scattered throughout the study area, with good examples of this habitat found along the proposed subtransmission line route near mileposts 12 and 13 (Figure 3.4-6).

**3.4.1.3.10 Valley Needlegrass Grassland.** Native grassland in the study region is characterized by a relatively low (>10 percent) to dense herbaceous cover of the perennial, tussock-forming grass species. This association generally occurs on fine-textured clay soils that are moist or wet in winter, but very dry in summer. Disturbed native grassland occurs in the project area, dominated by a mixture of bunch grasses and non-native grasses including foothill stipa (*Nassella lepida*), nodding needlegrass (*Nassella cernua*), wild oat (*Avena barbata*), and ripgut brome (*Bromus diandrus*). Disturbed valley needlegrass grassland is found only along the northerly 115 kV line route alternative, near milepost 5.7 (Figure 3.4-3).

**3.4.1.3.11 Alkali Meadow.** Alkali meadows are typically found in valley bottoms and on lower portions of alluvial slopes, and are characterized by a dense to fairly open growth of perennial grasses and sedges. One alkali meadow is found within the project area, near mileposts 0.1 and 0.2 of the northerly 115 kV line route alternative (Figure 3.4-1). This meadow lies at the confluence of several small streams that are tributaries to San Timoteo Canyon. Species present include wild oat, cattails (*Typha* spp.), and brome grasses.

**3.4.1.3.12 Non-native Grassland.** Nonnative grassland generally occurs on fine-textured loam or clay soils which are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. It is characterized by a dense to sparse cover of exotic annual grasses, often with native and nonnative annual forbs (Holland, 1986). This habitat is a disturbance-related community typically found in old fields or openings in native scrub habitats. Non-native grassland is located throughout the study area, and is composed of a mixture of non-native invasive grass species including wild oat, ripgut brome, perennial ryegrass (*Lolium perenne*), and cheat grass (*Bromus tectorum*), among other species. This community existed throughout the study area, but had the highest density between mileposts 1.9 and 4.3 on the proposed subtransmission line route (Figure 3.4-9).

**3.4.1.3.13 Southern Riparian Forest.** Riparian forest is an open or closed canopy forest that is generally greater than 6 m (20 ft) high and occupies relatively broad drainages and floodplains supporting perennially wet streams. In the project area, this habitat type is dominated by coverage of willows (*Salix* spp.) and western sycamore (*Platanus racemosa*). Cottonwoods (*Populus fremontii*), Mexican elderberry (*Sambucus mexicanus*) and ash (*Fraxinus* sp.) were also components of the riparian forest vegetation community within the project area. Emergent hydrophilic plants such as cattails, bulrush (*Scirpus* sp.), rush (*Juncus* sp.) and spike-rush (*Eleocharis* sp.) are also frequent in the understory at the downstream (western) end of San Timoteo Canyon. Southern riparian forest is located near Site 38, Site 33, and between mileposts 1.8-2.8, and 3.6-5.7 along the proposed subtransmission line route (Figure 3.4-8, 3.4-9, 3.4-10).

**3.4.1.3.14 Southern Willow Scrub.** Riparian scrub varies from a dense, broad-leafed, winter-deciduous association dominated by willows and mule fat (*Baccharis salicifolia*). This association is generally found on loose, sandy, or fine gravelly alluvium deposited near stream channels during floods, and most stands are too dense to allow much understory to

develop (Holland, 1986). Typical willow species include black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and sandbar willow (*Salix exigua*). Understory vegetation is usually composed of nonnative, weedy species or is lacking altogether. This association may represent a successional stage leading to riparian woodland or forest. Disturbed southern willow scrub occurs where streams have been channelized, damaged by offroad vehicle activity, or have been invaded by giant reed (*Arundo donax*), or other exotic species. This habitat can be found associated with San Timoteo Canyon near Sites 33 and 38 (Figure 3.4-1).

**3.4.1.3.15 Unvegetated Wash.** This habitat typically occurs in sandy washes that experience enough scour to prevent plants from colonizing. These washes usually occur in xeric regions where rain events bring large amounts of water over a short period of time.

**3.4.1.3.16 Pond.** A stock pond with emergent marsh vegetation such as cattails is present along the northerly 115 kV line route alternative near milepost 0.3 (Figure 3.4-1). This pond appears to be artificially created, as evidenced by a berm or dam along the pond's southern border. Emergent freshwater marsh vegetation dominated by cattails grows along the rim of the pond.

**3.4.1.3.17 Coast Live Oak Woodland.** Coast live oak woodland is open woodland dominated by coast live oak (*Quercus agrifolia*). This habitat typically occurs on north-facing slopes or in shaded ravines, and intergrades with coastal sage scrub or chaparral on drier sites (Holland, 1986). The herbaceous component is continuous and often dominated by nonnative, weedy species such as non-native annual grasses. This vegetation community is found throughout the project area, with relatively large stand found at milepost 0.5 of the northerly 115 kV line route alternative (Figure 3.4-1).

#### **3.4.1.4 Special Management Plant Species**

Three special management plant species were detected during field surveys, including Plummers' mariposa lily, smooth tarplant, and Cleveland's bush monkeyflower (*Mimulus clevelandii*, CNPS List 4). The respective locations where these species were detected are shown on Figures 3.4-1 through 3.4-10, with most of these locations concentrated in the western portion of the project area. None of these species were detected in the proposed limits of grading for the proposed and alternative substations, although they were observed along the linear project elements. Species accounts and site-specific information about these special management plants can be found below. See Table 3.4-2 for list of potentially occurring special management plant species within the project area.

**3.4.1.4.1 Plummer's Mariposa Lily (List 1B/RED 2-3-3).** Plummer's mariposa lily is a perennial herb within the family Liliaceae that grows from a bulb or corm. The species is restricted to chaparral, sage scrub, native grassland, and yellow pine forest in southern California, with specimens known to historically occur only in Riverside, San Bernardino,

Orange, Los Angeles, and Ventura counties. The pink and yellow tulip-like flowers typically are in bloom from May to July. This species is on the CNPS list 1B, with its range severely affected by development (CNPS, 2005).

Plummer's mariposa lily was detected along the alternative 115 kV line between mileposts 0.7 and 2.1, from San Timoteo Canyon Road to Interstate 10 (Figure 3.4-1). It was locally frequent on the ridgeline, especially where clay deposits occur on flattened portions of the ridgelines. Though frequent in distribution for this area, the plants were not numerous, and the population within the general corridor for the proposed route likely numbers less than 100 plants.

Collection records indicate that Plummer's mariposa lily also occurs in the vicinity of the proposed subtransmission line route, between mileposts 0.0 and 4.0 in the Riverside Ecological Reserve south of San Timoteo Canyon Road. This species was not observed in these areas during surveys in 2005 and 2006, although detection is likely difficult because the habitat in both these areas is somewhat degraded.

**3.4.1.4.2 Smooth Tarplant (List 1B/RED 2-3-3).** Smooth tarplant is an annual herb in the family Asteraceae that is typically found in riparian habitat, meadows, seeps, grasslands, and playas. The yellow heads can typically be observed from April through September, and this species is primarily restricted to western Riverside County, with specimens historically observed in Orange, San Diego, and San Bernardino counties. This species is on the CNPS list 1B, with its range is severely affected by agriculture, urbanization, and flood control projects (CNPS, 2005).

Smooth tarplant was detected on alluvial deposits of San Timoteo Creek at the west end of the project area, south of the substation alternative Site 38 (Figure 3.4-1). This occurrence numbered less than 25 plants, and there is a high potential for it to occur in several areas along San Timoteo Creek. This species has moderate potential to occur where the linear project elements intersect with appropriate habitat, as described above.

**3.4.1.4.3 Cleveland's Bush Monkeyflower (List 4/RED 1-2-2).** Cleveland's bush monkeyflower is a perennial herb in the family Scrophulariaceae that is often observed in openings and disturbed areas in chaparral and lower montane coniferous forest in San Diego, Riverside, and Orange counties. This species blooms from May through July and has yellow, irregular, bilaterally symmetrical flowers. Despite the fact that Cleveland's bush monkeyflower displays gradations of color and form and belongs to a complex species group of known naturally occurring hybrids, it is considered distinct and rare. This species is on the CNPS list 4, and is threatened by recreational activities and impacts to its habitat (CNPS, 2005; Reiser, 1994).

Cleveland's bush monkeyflower was detected on steep erosive slopes in the project area, between mileposts 0.2 and 2.0 on the alternative 115 kV line, and in the Riverside Ecological

Reserve along the proposed subtransmission line route (Figures 3.4-1 and 3.4-10). This species does not likely occur elsewhere within the project area because there is no additional appropriate habitat within the project area.

### 3.4.1.5 Wildlife

The project area is located in a region with relatively high wildlife species diversity. As a result, many listed wildlife species also potentially occur in the project area, and these species are listed in Table 3.4-3. Least Bell's vireos and willow flycatchers were detected in the riparian habitat associated with San Timoteo Canyon in the vicinity of the El Casco substation alternative Sites 38 and 33 (Figure 3.4-1). The results of these avian surveys are found below.

**TABLE 3.4-3  
POTENTIALLY OCCURRING SPECIAL STATUS WILDLIFE SPECIES WITHIN  
THE PROJECT AREA**

Common Name	Scientific Name	Status*	Habitat	Potential to Occur within Project Vicinity
<b>Amphibians and Reptiles</b>				
Western spadefoot	<i>Spea hammondi</i>	SSC	Vernal pools, riparian habitats and associated uplands	Moderate
Orangethroat whiptail	<i>Cnemidophorus hyperythrus</i>	SSC	Open coastal sage scrub, chaparral	High
Coast horned lizard	<i>Phrynosoma coronatum</i>	SSC	Open coastal sage scrub, chaparral	High
Red diamond rattlesnake	<i>Crotalus ruber</i>	SSC	Coastal sage scrub, chaparral	High
Coast patchnose snake	<i>Salvadora hexalepis virgultea</i>	SSC	Coastal sage scrub, chaparral	Moderate
Two-striped garter snake	<i>Thamnophis hammondi</i>	SSC	Streams, riparian areas	High
<b>Birds</b>				
White-tailed kite	<i>Elanus leucurus</i>	FP	Riparian woodland, marshes, cultivated fields, grasslands	High
Northern harrier	<i>Circus cyaneus</i>	SSC	Grasslands, marshes, coastal sage scrub, chaparral; open habitats	High
Sharp-shinned hawk	<i>Accipiter striatus</i>	SSC	Winter migrant. Woodlands, eucalyptus groves	High
Cooper's hawk	<i>Accipiter cooperii</i>	SSC	Woodlands, eucalyptus groves	Detected

**TABLE 3.4-3 (Continued)**  
**POTENTIALLY OCCURRING SPECIAL STATUS WILDLIFE SPECIES WITHIN**  
**THE PROJECT AREA**

Common Name	Scientific Name	Status*	Habitat	Potential to Occur within Project Vicinity
Swainson's Hawk	<i>Buteo swainsoni</i>	ST	open habitats, cultivated fields with scattered trees	High, migrants only
Ferruginous hawk	<i>Buteo regalis</i>	SSC	Open country, badlands	Moderate
Golden eagle	<i>Aquila chrysaetos</i>	SSC, FP	Open country, typically nests on cliff ledges	Low
Merlin	<i>Falco columbarius</i>	SSC	Various	Moderate
Prairie falcon	<i>Falco mexicanus</i>	SSC	Prairie and deserts	Moderate
Burrowing owl	<i>Athene cinicularia</i>	SSC	Arid areas, grasslands, open coastal sage scrub, chaparral	High
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	SE, FE	Riparian forest, water usually present	Moderate
Loggerhead shrike	<i>Lanius ludovicianus</i>	SSC	Arid areas, coastal sage scrub, chaparral	High
Least Bell's vireo	<i>Vireo bellii pusillus</i>	SE, FE	Successional riparian scrub	Detected
California coastal gnatcatcher	<i>Poliptila californica californica</i>	FT, SSC	Coastal sage scrub	Low
California horned lark	<i>Eremophila alpestris actia</i>	SSC	Grasslands, coastal sage scrub, chaparral; open habitats.	High
Bell's sage sparrow	<i>Amphispiza belli belli</i>	SSC	Chaparral and coastal sage scrub	Moderate
Southern California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	SSC	Typically steep, rocky slopes, coastal sage scrub	High
Yellow warbler	<i>Dendroica petechia</i>	SSC	Riparian forest	Detected
Yellow-breasted chat	<i>Icteria virens</i>	SSC	Riparian forest	Detected
Tricolored blackbird	<i>Agelaius tricolor</i>	SSC	Freshwater marsh	Low
<b>Mammals</b>				
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	SSC	Open scrub and chaparral	Moderate
Los Angeles pocket mouse	<i>Perognathus longimembris brevinasus</i>	SSC	Grasslands and coastal sage scrub, low elevations	Moderate
San Diego pocket mouse	<i>Chaetodipus fallax fallax</i>	SSC	Coastal sage scrub, chaparral, desert habitats	Moderate
Stephens' kangaroo rat	<i>Dipodomys stephensi</i>	ST, FE	Annual grassland with sparse perennial vegetation	Low

**TABLE 3.4-3 (Continued)**  
**POTENTIALLY OCCURRING SPECIAL STATUS WILDLIFE SPECIES WITHIN**  
**THE PROJECT AREA**

Common Name	Scientific Name	Status*	Habitat	Potential to Occur within Project Vicinity
San Diego woodrat	<i>Neotoma lepida intermedia</i>	SSC	Coastal sage scrub, chaparral, desert habitats	High
American badger	<i>Taxidea taxus</i>	SSC	Grasslands, savannas, deserts, and mountain meadows near timberline	Low
*Notes: SSC=California Species of Special Concern, FP=California Fully Protected Species, ST=State listed as Threatened, SE=State listed as Endangered, FT=federally listed as Threatened, FE=federally listed as Endangered				

From a geographical standpoint, the project area lies in a region important to many wildlife species. The El Casco region represents one of the few corridors between the coastal region and the deserts east of the San Jacinto and San Bernardino Mountains. Therefore, the project area resides in an important regional wildlife corridor connecting large tracts of undeveloped lands like Marine Corps Base Camp Pendleton and the Santa Ana Mountains in the west, to Joshua Tree National Park and surrounding desert regions in the east. Connections between extensive areas of open space are integral to maintaining regional biological diversity and population viability.

Focused surveys for special status wildlife species were not conducted along much of the linear project elements because the exact impact footprint of the towers and staging areas was not available at the time of the biological surveys. Additional surveys required for compliance with the Western Riverside MSHCP would be conducted once a footprint for the project is completed. When impact areas are chosen for the project, they are expected to be relatively small, generally within existing disturbed access roads, and impacts to habitat that would likely support listed wildlife species would be avoided or minimized. Therefore, the discussion for portions of this section is primarily limited to potential wildlife species present based on habitat and historical locations. The exception to this is where focused wildlife surveys did occur, as in the vicinity of Sites 33 and 38, and along portions of the proposed subtransmission line route.

**3.4.1.5.1 Least Bell's Vireo Species Account.** The least Bells' vireo is a small, gray, foliage-gleaning passerine with a cylindrical, slightly hooked bill. Historically, this subspecies of Bell's vireo was a common summer visitor to riparian habitat throughout much of California. Currently, least Bell's vireo is found only in riparian woodlands in southern

California, with the majority of breeding pairs in San Diego, Santa Barbara, and Riverside Counties. The least Bell's vireo arrives in Riverside in late March and early April and leaves for its wintering ground in September. Least Bell's vireos build their nests in dense shrubbery 3 to 4 feet above the ground (Salata, 1984) requiring young successional riparian habitat or older habitat with a dense understory. Therefore, riparian plant succession is an important factor maintaining least Bell's vireo habitat. Nests are also often placed along internal or external edges of riparian thickets (USFWS, 1986). The least Bell's vireo's decline is the result of loss, degradation, and fragmentation of riparian habitats within its range, combined with brood parasitism by the brown-headed cowbird (*Molothrus ater*).

**3.4.1.5.2 Southwestern Willow Flycatcher Species Account.** The willow flycatcher (*Empidonax traillii*) is a neotropical migrant belonging to the complex flycatcher genus *Empidonax*. This relatively small passerine's coloration is overall greenish or brownish gray above, with a whitish throat that contrasts with a pale olive breast. The belly is pale yellow, and two wing bars are visible. The eye ring is faint or absent. All subspecies of the willow flycatcher were listed as Endangered by the CDFG in 1991, and the southwestern subspecies (*extimus*) was listed by the USFWS as Endangered in 1995 (USFWS, 1995).

Of the four recognized subspecies found in North America, three are known to occur in California: *E. t. brewsteri*, *E. t. adastus*, and *E. t. extimus*. Although these subspecies generally breed in specific ranges, all may be observed in southern California during migration. *E. t. brewsteri* breeds in California from Tulare County north, along the western side of the Sierra Nevada and Cascades, extending to the coast in northern California. *E. t. adastus* breeds in California east of the Sierra/Cascade axis, from the Oregon border into Modoc County and possibly into northern Inyo County (Craig and Williams, 1998).

The southwestern willow flycatcher is a summer breeding resident in riparian habitats in southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, and southwestern Colorado (USFWS, 1995). It is most commonly found in riparian woodlands of willow (*Salix* spp.), with a well-developed herbaceous understory and the nearby presence of flowing or standing water, or minimally, soils that have periodically held water prior to the breeding season. In general, the riparian habitat of this species tends to be rare, isolated, small and/or linear patches, separated by vast expanses of arid lands. The southwestern willow flycatcher was listed as endangered by the USFWS because of "extensive loss of riparian breeding habitat, brood parasitism by the brown-headed cowbird, and lack of adequate protective regulations" (USFWS, 1995). The number of southwestern willow flycatchers in southern California was estimated to be less than 80 pairs in the early 1980's (Unitt, 1984).

Spring migration of the southwestern subspecies is relatively late, beginning in early May and extending through June (Unitt, 1984). Fall migration occurs rather early, beginning as early as late July and extending through September. Eggs are typically laid between the end of May through the end of June. Dense willow thickets are generally required for nesting,



and nests are often near standing water (Zeiner et al., 1990). An interesting exception to this habitat requirement exists along the Upper San Luis Rey River, where the largest known colony in San Diego County primarily nests in coast live oak.

### 3.4.1.6 Proposed Project

**3.4.1.6.1 El Casco Substation.** The El Casco Substation would be constructed at Site 33, which is located on the southwest side of San Timoteo Canyon Road, approximately 4.5 miles northeast of the intersection of San Timoteo Canyon Road and Interstate 10 (Figure 3.4-1). This site is approximately 0.5 mile southeast of the Alternate Site (Site 38), and is situated within a shallow alluvial valley surrounded by eroded hills on three sides. This valley opens to the northeast where it joins with San Timoteo Canyon. Site 33 supports scrub oak chaparral, non-native grassland, disturbed/ruderal habitat, with riparian habitat, southern mixed chaparral and chamise chaparral adjacent. The majority of this site supports disturbed/ruderal habitat. The dominant species on the site include scrub oaks (*Quercus berberidifolia*), black sage, California sagebrush, chamise, spiny redberry (*Rhamnus crocea*), mustards (*Hirschfeldia incana*, *Brassica* spp.), ripgut brome, tocalote (*Centaurea melitensis*), storks bill (*Erodium* spp.), and wild oat. Much of the chaparral present west the site has burned recently. The riparian habitat is associated with the San Timoteo Canyon drainage and supports a relatively narrow band of willows with cottonwoods interspersed. Some disturbance is present on the site, with some evidence of grading and road maintenance. Faint, discontinuous swales lacking hydrophytic vegetation are present within the site and are not considered federal or state jurisdictional waters.

In addition to the substation footprint, two duct banks spaced 6 feet apart would enter separate 26-inch (internal dimension) bore casings near the northeast substation corner. These duct banks would be installed underground for about 300 feet, under both the San Timoteo Creek and the adjacent railroad tracks. The boring would then terminate in separate vaults on the south side of San Timoteo Canyon Road. The installation of the bore casings would be accomplished using horizontal directional drilling (HDD) techniques that would adhere to the following requirements:

- The directional bore would be at least eight feet below the channel to avoid impacts to the base flow of the stream.
- All impacts to riparian vegetation would be avoided by placing bore pit outside of riparian habitat.
- No resulting spoils or sediment would enter the waterway.
- HDD would occur outside of the least Bell's vireo breeding season.

No plant species of special management concern were found onsite or in the hills nearby substation Site 33. A focused survey for Plummer's mariposa lily revealed no individuals of that species onsite.

Site 33 is located immediately adjacent to riparian habitat associated with San Timoteo Canyon that supports least Bell's vireo and migrant willow flycatcher. The results of surveys for listed riparian bird species conducted in 2006 are presented below. Other wildlife species detected at this site include California side-blotched lizard, western fence lizard (*Sceloporus occidentalis*), bobcat (*Felis rufus*), and coyote (*Canis latrans*). The non-native grassland and ruderal habitat provides raptor foraging habitat. A red-tailed hawk nest (*Buteo jamaicensis*) was observed on a subtransmission line tower adjacent to the site in June 2006.

**3.4.1.6.2 Site 33 Avian Surveys 2006.** Three territorial male least Bell's vireos were detected in the riparian habitat in the vicinity of site 33 (Figure 3.4-1). One of the males exhibited behaviors characteristic of being paired and nest tending; however, no females or young were ever confirmed near Site 33. Additional least Bell's vireos were detected in 2006 northwest of the site in the vicinity of Site 38.

One willow flycatcher was detected in the riparian habitat in the vicinity of site 33 on May 24, 2006 and June 7, 2006; however, this bird was not confirmed to be a southwestern willow flycatcher. The three locations of the individual observed in 2006 are plotted on Figure 3.4-1 indicating its movement and areas of habitat usage. This willow flycatcher is likely a transient of a different subspecies (*E.t. brewsteri*) as it was not detected during subsequent surveys during the breeding season. The *brewsteri* subspecies of willow flycatcher would often occupy suitable habitat in southern California during their migration to the northwestern United States from their wintering grounds but would not nest permanently in the area. A list of avian survey dates and conditions can found in Table 3.4-4.

**TABLE 3.4-4  
SITE 33, 38 AND PROPOSED ALIGNMENT SURVEY DATES  
AND CONDITIONS**

Date	Survey Type	Location	Time on site	Conditions
27-Apr-05	LBVI*	Site 38	0840-1045	59-60°F, overcast, 0-3 mph wind
12-May-05	LBVI	Site 38	0635-0945	N/A
23-May-05	LBVI, WIFL*	Site 38	0650-0830	70-80°F, clear, no wind
3-Jun-05	LBVI, WIFL	Site 38	0730-1000	65-75°F, 50-75% cover, light wind
9-Jun-05	LBVI, WIFL	Site 38	0710-1000	N/A

**TABLE 3.4-4 (Continued)**  
**SITE 33, 38 AND PROPOSED ALIGNMENT SURVEY DATES**  
**AND CONDITIONS**

Date	Survey Type	Location	Time on site	Conditions
14-Jun-05	<b>LBVI</b> , WIFL	Site 38	0645-0930	65-85°F, clear, 0-4 mph wind
24-Jun-05	<b>LBVI</b> , WIFL	Site 38	0615-0750	55-70°F, clear, light wind
5-Jul-05	<b>LBVI</b> , WIFL	Site 38	0640-0740	60-70°F, clear, 0-4 mph wind
15-Jul-05	<b>LBVI</b> , WIFL	Site 38	0630-0745	70-75°F, 30-60% cover, 0-3 mph wind
4-Jun-05	<b>LBVI</b>	Proposed Route (Mileposts 1.5-2.5)	0600-0730	60°F, 100% cover, 0-4 mph wind
25-Jun-05	<b>LBVI</b>	Proposed Route (Mileposts 1.5-2.5)	0715-0945	65-75°F, clear, no wind
4-Jun-05	<b>LBVI</b>	Proposed Route (Mileposts 4.4-6.0)	0820-1030	60-75°F, 0-100% cover, 2-10 mph wind
5-Jul-05	<b>LBVI</b>	Proposed Route (Mileposts 4.4-6.0)	0820-1015	75-85°F, clear, 0-4 mph wind
18-Apr-06	<b>LBVI</b>	Site 33	0800-1000	60-65°F, clear, 3-15 mph wind
11-May-06	<b>LBVI</b>	Site 33	0730-0920	63-70°F clear/hazy, 1-3 mph wind
24-May-06	<b>LBVI</b> , <b>WIFL</b>	Site 33	0825-1020	70-77°F, clear, 1-4 mph wind
7-Jun-06	<b>LBVI</b> , <b>WIFL</b>	Site 33	0830-1050	74-83°F, clear/hazy, 0-2 mph wind
19-Jun-06	<b>LBVI</b>	Site 33	0830-1020	80-90°F clear 0-2 mph wind
29-Jun-06	<b>LBVI</b> , <b>WIFL</b>	Site 33	0900-1030	80-88°F clear/cirrus 0-5 mph wind
5-Jul-06	<b>WIFL</b>	Site 33	0840-1010	86-90°F clear, 0-3 mph wind
13-Jul-06	<b>LBVI</b> , <b>WIFL</b>	Site 33	0840-1055	82-94°F clear, 0-5 mph wind
24-Jul-06	<b>LBVI</b>	Site 33	0845-1015	83-100°F, 25% sky cover, 0-2 mph wind

\* **LBVI**=Least Bell's Vireo (**boldface** indicates species detection). **LBVI** also detected on 7/5/06.

\*\* **WIFL**=Southwestern Willow Flycatcher(**boldface** indicates species detection, but not necessarily extimus subspecies)

**3.4.1.6.2 Banning Substation.** This substation is located adjacent Interstate 10 within the city of Banning surrounded by developed areas, and the substation does not support native habitat. All proposed work at for this project is within the existing fence of the substation.

**3.4.1.6.3 Zanja Substation.** The Zanja Substation is located approximately 0.25 miles south of the intersection of Mill Creek Road and Bryant Street, north of Yucaipa. This substation is situated in a narrow valley bordered by the foothills of the San Bernardino Mountains to the northeast and the Crafton Hills to the southwest. Mill Creek is located to the north, and Zanja Creek is adjacent the substation to the south. The site is located just outside of a residential development in an area supporting light agricultural land use in the form of livestock pasture. The substation site is developed, with non-native grassland and ruderal habitat surrounding it. All proposed work for this project is within the existing fence of the substation. Zanja Creek is an intermittent wash supporting coastal sage scrub and chaparral species such as buckwheat, chamise, and scrub oaks. The north facing slope to the south of the creek supports coast live oak woodland and chaparral.

A red-tailed hawk nest was observed in a subtransmission line tower associated with the site. Zanja Creek may function as a regional wildlife corridor linking the San Bernardino Mountains to the Crafton Hills as identified in the Western Riverside County MSHCP.

**3.4.1.6.4 Southerly 115 kV Subtransmission Line Route.** The proposed route (Figures 3.4-1, 3.4-5 through 3.4-10) initiates at the southeastern edge of Site 33 in an area with patches of disturbed/ruderal habitat, developed area, and non-native grassland. Disturbed/ruderal habitat and developed areas are present throughout most of this route, especially at its eastern end. At mileposts 0.1 through 1.8, the route travels through alternating patches of disturbed and undisturbed chamise chaparral, non-native grassland, southern mixed chaparral, and disturbed/ruderal habitat. Riversidean sage scrub is present at mileposts 1.9-2.0, 2.6, and 2.9-3.0 (Figure 3.4-9). From approximately milepost 2.0 to 3.7, the route travels along the State Route 60 alignment, bordered by non-native grassland, isolated coast live oaks, aside from the patches of Riversidean sage scrub just mentioned. Beyond this, the route leaves the State Route 60 alignment and follows the northern edge of The Badlands though a patchwork of non-native grassland, scrub oak chaparral, disturbed/ruderal habitat, developed area, and southern riparian forest until approximately milepost 6.6. The route then travels primarily though disturbed/ruderal habitat, and developed areas until it terminates at milepost 11.3 (Figures 3.4-5 through 3.4-8). Patches of non-native grassland are present along this portion (mileposts 8.1-8.5, 10.5), and Riversidean alluvial fan sage scrub associated with an ephemeral wash is present at milepost 10.6. Disturbed/ruderal habitat and developed areas are present from mileposts 11.3-11.8. The route then traverses though alternating patches of Riversidean alluvial fan sage scrub, non-native grassland, disturbed/ruderal habitat, and disturbed Riversidean sage scrub until milepost 13.2. The remainder of the route travels through large developed areas associated with the city of Banning, with smaller patches of disturbed/ruderal habitat.

In the vicinity of milepost 6, two subtransmission line loops associated with the Maraschino Substation connect to the proposed route (Figure 3.4-8). Initiating from the Maraschino Substation a short distance from the proposed line, the western loop travels through alternating areas of disturbed/ruderal habitat and developed areas until it connects to the proposed route at a location supporting southern riparian forest. The southern loop travels through alternating areas of disturbed/ruderal habitat and developed areas, with some patches of eucalyptus woodland growing in minor drainages.

Least Bell's vireo surveys were conducted along portions of this route. A total of at least four least Bell's vireo territories were detected in the vicinity of this route, all within riparian habitat associated with San Timoteo Canyon. These four territories are located near mileposts 2.0-2.3 (Figure 3.4-9, 3.4-10). An additional least Bell's vireo was detected near milepost 4.5; however, this individual was detected only on one survey and may have been a transient individual. These vireos were detected during informal, non-USFWS protocol surveys along this route alignment. Other special status avian species detected during these surveys included yellow-breasted chats and yellow warblers. Both these species are presumed to have bred in this area. Survey dates and conditions can be found in Table 3.4-4

Non-native grassland, various chaparral associations, Riversidean sage scrub, Riversidean alluvial fan sage scrub, southern riparian forest, and isolated coast live oaks are the habitats most valuable to wildlife species along this route. Historical locations of Stephens' kangaroo rat are present in the vicinity of milepost 4 (Figure 3.4-9), and 10.5-12 (Figure 3.4-6), although a current onsite assessment of habitat for this species was not conducted at these locations. There is high potential for this species to be present along this route because the habitat remains intact at these locations. A coast horned lizard (*Phrynosoma coronatum*, SSC) was detected adjacent to the riparian habitat near milepost 1.6 during the avian surveys. Other special status wildlife species potentially present based on historical locations (CNDDDB and USFWS) and potential habitat along this route include orange-throated whiptail, (*Cnemidophorus hyperythrus*, SSC), red diamond rattlesnake (*Crotalus ruber*, SSC), Bell's sage sparrow (*Amphispiza belli belli*, SSC), California horned lark (*Eremophila alpestris actia*, SSC), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*, SSC), Cooper's hawk, white-tailed kite, burrowing owl (*Athene cunicularia*, SSC), loggerhead shrike (*Lanius ludovicianus*, SSC), San Diego pocket mouse (*Chaetodipus fallax fallax*, SSC), San Diego woodrat (*Neotoma lepida intermedia*, SSC) and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*, SSC). The Riversidean sage scrub at mileposts 2.0, 2.6, and 2.9 (Figure 3.4-9) may support California gnatcatcher. The riparian habitat along this route is known to support least Bell's vireo, and wider areas of riparian habitat adjacent to the route (e.g., mileposts 2.0-2.5, Figure 3.4-9) may support southwestern willow flycatcher. The grassland and ruderal habitat along other portions of this route may provide raptor foraging habitat.

**3.4.1.6.5 Mill Creek Communications Site.** The proposed location of the Mill Creek communications site is approximately 2.2 miles northeast of the Zanja Substation on top of Yucaipa Ridge. The site is located at approximately 4,800 feet in elevation and supports southern mixed chaparral habitat dominated by chamise, scrub oaks, ceanothus, manzanita (*Arctostaphylos* sp.) and mountain mahogany (*Cercocarpus* sp.). Occasional fir trees such as incense cedar (*Calocedrus decurrens*) are also present in the site vicinity. Developed areas in the form of a microwave relay building, an aqueduct-fed holding pond, and a dirt road also exist on the site. Portions of the site are disturbed and support non-native grasses, blackberry (*Rubus* sp.) and ruderal vegetation. Some recently disturbed chaparral areas are recovering with buckwheat, golden yarrow (*Eriophyllum confertiflorum*), lupines (*Lupinus* spp.), and plantain (*Plantago* sp.). The undisturbed chaparral habitat on the site may support rare plant species such as Yucaipa onion (*Allium marvini*).

Wildlife species observed at the site during the May 24, 2006, visit are typical of higher elevation chaparral habitat and include mountain quail (*Oreortyx pictus*), red-tailed hawk, black-chinned sparrow (*Spizella atrogularis*), mallard (*Anas platyrhynchos*), violet green swallow (*Tachycineta thalassina*), western scrub jay (*Aphelocoma californica*), and ash-throated flycatcher (*Myiarchus cinerascens*), among others. No special status wildlife species were observed at the site during the May visit. The holding pond may attract diverse wildlife, because it provides a valuable water source.

**3.4.1.6.6 Fiber Optic System.** The proposed fiber optic system would be installed on existing poles or within existing underground duct banks along the entirety of the approximately 55-mile route with the exception of four new poles spanning approximately 500 feet. Biological surveys were not conducted along the fiber optic route because the fiber optic line would be installed on existing poles using existing roadways. The route would cross all of the vegetation communities identified in the project area along some portion of its length. Much of the line would be located in urban and ruderal habitats with no potential for special status plant or animal species to occur and far removed from any sensitive habitat areas.

The new wooden poles would be placed between the existing M30 T2 transmission tower and existing distribution poles located approximately 400 feet south of Lake Drive (See Figure 2-3.3). The poles would be installed within ruderal, non-native grassland, and chamise chaparral vegetation communities. A search of the CNDDDB did not indicate the presence of any special status plant or animal species within 500 feet of the proposed poles.

### **3.4.1.7 Project Alternatives**

**3.4.1.7.1 Northerly 115 kV Subtransmission Line Route Alternative.** This subtransmission line route (Figures 3.4-1 through 3.4-5) initiates approximately 2,000 feet southeast of Site 38 at San Timoteo Canyon Road where it would tie in with the existing Devers-San Bernardino 220 kV routes. This area supports southern riparian forest habitat

associated with San Timoteo Canyon, non-native grassland and ruderal/disturbed habitat. At milepost 0.2 to 0.7, the line traverses through an alkali meadow and non-native grassland (Figure 3.4-1). Beyond this area, the line travels over an isolated ridge where the habitat transitions to coast live oak woodland and various types of chaparral, including southern mixed chaparral, chamise chaparral, and scrub oak chaparral. This area also supports known locations and potential habitat for Plummer's mariposa lily as well as Cleveland monkey flower. This association continues until approximately milepost 2.1, where the line travels through patches of developed areas, disturbed/ruderal habitat, non-native grassland, two unvegetated washes near mileposts 5.3 and 8.2, and a small patch of disturbed valley needlegrass grassland at milepost 5.6 (Figures 3.4-3, 3.4-4).

From milepost 10.3-10.7 the route travels through undisturbed and disturbed Riversidean sage scrub, with Riversidean alluvial fan sage scrub present at milepost 10.7 (Figure 3.4-5). From here, the route travels through large patches of non-native grassland and developed areas, with a small patch of disturbed chamise chaparral at milepost 11.1, and narrow strips of coast live oak woodland and Riversidean alluvial fan sage scrub at mileposts 11.3 and 11.5, respectively. Developed area associated with the city of Banning exists from approximately milepost 11.7 to the route's terminus at milepost 13.7.

Wildlife habitat is present in the form of riparian forest, non-native grassland, coast live oak woodland, disturbed valley needlegrass grassland, and various chaparral associations. The alkali meadow and ridge at western portion of this route (mileposts 0.2-2.1, Figure 3.4-1) is relatively undisturbed and provides potential habitat for many listed wildlife species including western spadefoot (*Spea hammondi*, SSC), coast horned lizard, orangethroat whiptail, Bell's sage sparrow, southern California rufous-crowned sparrow, Cooper's hawk, burrowing owl, loggerhead shrike, San Diego pocket mouse, and San Diego black-tailed jackrabbit. The eastern portion of the route is dominated by developed areas and disturbed/ruderal habitat with some isolated fragments non-native grassland, disturbed valley needlegrass grassland, and unvegetated washes. This area is less likely to support listed wildlife species; however, a historical Stephens' kangaroo rat occurrence is located approximately 0.5 miles north of milepost 8.0. The grassland and ruderal habitat in this area may provide raptor foraging habitat, although there is low potential for Stephens' kangaroo rat to exist near the alternative subtransmission line in this area.

**3.4.1.7.2 Site 38 (Alternate Site).** Site 38 is located on the north side of San Timoteo Canyon Road, approximately 0.3 miles northwest of Site 33 (Figure 3.4-1). This site appears to be an abandoned farm with scattered buildings, dirt roads, and fields now supporting ruderal and non-native grassland with some riparian habitat, and coastal sage scrub. The riparian habitat is associated with the San Timoteo Canyon drainage and supports primarily willows. Most of this site is flat and plowed, with very weedy ruderal vegetation, and there are scattered abandoned farm buildings. A hill in the northwest portion of this site supports disturbed Riversidean sage scrub habitat, dominated by buckwheat, California sagebrush,

cacti (*Cylindropuntia californica* and *Opuntia vaseyi*), and white sage (*Salvia apiana*). Dense non-native grasses and ruderal species are also present in the openings of this scrub habitat.

Site 38 is located immediately adjacent to riparian habitat associated with San Timoteo Canyon that supports least Bell's vireo and willow flycatcher. More extensive riparian habitat exists across San Timoteo Canyon Road, and adjacent railroad tracks. Surveys for listed riparian bird species were conducted in the spring and summer of 2005. The results of these surveys are presented below. Other wildlife species detected at this site include California side-blotched lizard (*Uta stansburiana elegans*), California toad (*Bufo boreas halophilus*), muledeer (*Odocoileus hemionus*), bobcat (*Felis rufus*), and mountain lion (*Felis concolor*). The non-native grassland and ruderal habitat likely provide raptor foraging habitat.

**3.4.1.7.3 Site 38 Avian Surveys 2005.** Three territorial male least Bell's vireos were detected in the riparian habitat near Site 38 (Figure 3.4-1). Two of the males exhibited behaviors characteristic of being paired and nest tending; however, no females or young were ever confirmed on Site 38. A suspected fourth least Bell's vireo territory exists approximately 500 feet northwest (upstream) of Site 38. This calling male was detected on two surveys. A list of avian survey dates and conditions can found in Table 3.4-4.

Two willow flycatchers were detected on June 3, 2005, near the bridge entrance to Site 38; however, they were not confirmed to be southwestern willow flycatchers. These willow flycatchers were determined to be transient as this species was not detected during the following four surveys. As previously noted, other subspecies of willow flycatcher would often occupy suitable habitat in southern California during their migration through the region, but would not nest permanently in the area.

Six surveys were conducted instead of the required five protocol southwestern willow flycatcher surveys at Site 38, with one survey conducted during the designated survey period 1, two surveys in period 2, and three surveys in period 3. This additional survey was conducted during the second survey period to ensure that the previously detected willow flycatchers were indeed migrants and had not just shifted to a new location on site. A list of avian survey dates and conditions can found in Table 3.4-4.

### 3.4.2 Significance Criteria

Impacts to biological resources are considered potentially significant if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species (including species listed as threatened or endangered) in local or regional plans, policies, or regulations, or by the CDFG or USFWS



- Have a substantial adverse effect on any wetlands or other sensitive natural vegetation community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the United States Fish and Wildlife Service
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites, or obstruct genetic flow for identified planning species
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan
- Introduce land use within an area immediately adjacent to the project that would result in substantial edge effects
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

#### **3.4.2.1 Western Riverside County MSHCP**

A Multiple Species Habitat Conservation Plan (MSHCP) was adopted by western Riverside County in 2004. The majority of the Proposed Project is contained within the MSHCP planning region amongst two Area Plans: The Pass Area, which encompasses the San Timoteo Creek and the cities of Beaumont, Banning, and Calimesa; and the Reche Canyon/Badlands Area, which encompasses the steep badland slopes south and west of the project area.

According to the MSHCP, SCE is considered to be a Participating Special Entity (PSE). Take authorization is granted to a PSE provided they comply with the requirements set forth in Section 11.8 of the MSHCP Implementing Agreement. These requirements include the following:

- An application containing a detailed description of the proposed activity
- A map indicating the location of the proposed activity
- An analysis of its potential impacts to Covered Species and their habitats and the MSHCP Conservation Area
- The results of survey and mapping as required pursuant to Section 6.3 of the MSHCP
- A fee paid in the amount of 5 percent (5%) of total capital costs or take such other actions as may be agreed to by the RCA and the Wildlife Agencies

SCE may also participate as a developer by obtaining a permit from the County and pay development fees. According to Section 8.5.1 of the plan, “Government Code Section 66000 et seq. allows cities and counties to charge new Development for the costs of mitigating the impacts of new Development. The Cities and County would implement a Development Mitigation Fee pursuant to the MSHCP; this fee would be one of the primary sources of funding the implementation of the MSHCP...A fee of approximately \$1,500 per residential unit (or an equivalent fee per acre) and \$6,131 of commercial or industrial Development was used in the revenue projection...”

Under the MSHCP, several conservation goals have been identified for the region, including the establishment of large parcels of preserved land that provide high quality habitat for flora and faunal species. In the vicinity of the El Casco Project several critical conservation areas have been identified. These areas provide critical habitat functions for floral and faunal species in the region. It is the goal of the MSHCP to preserve and maintain these areas as part of the overall conservation goal for the region. Areas designated as future conservation areas are defined as Criteria Areas under the MSHCP.

The Proposed Project is contained within some of these identified Criteria areas, and SCE may be subject to the Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy (HANS). According to Section 6.1.1 of the plan, “the HANS Process applies to property which may be needed for inclusion in the MSHCP Conservation Area or subjected to other MSHCP Criteria and shall be implemented by the County and those Cities that have agreed to implement the HANS process ... The Process ensures that an early determination would be made of what properties are needed for the MSHCP Conservation Area, that the owners of property needed for the MSHCP Conservation Area are compensated, and that owners of land not needed for the MSHCP Conservation Area shall receive Take Authorization for Covered Species Adequately Conserved through the Permits issued to the County and Cities pursuant to the MSHCP.”

Criteria areas identified within the parcels associated with proposed substation site include Criteria Cells 569, and 662. According to the Conservation Summary Report Generator, the parcels representing the substation site are not subject to Cell Criteria (County of Riverside, 2006). However, habitat assessments for the following species are required:

- San Bernardino Kangaroo Rat
- Los Angeles Pocket Mouse
- Burrowing Owl
- Nevin’s Barberry
- Smooth Tarplant
- Round-leaved filaree
- Marvin’s onion

- Many-stemmed dudleya

The proposed and alternative subtransmission line routes also pass through certain Criteria Cells. However, according to the MSHCP, the construction of this subtransmission line is considered a covered activity because it is a future facility being carried out by a participating special entity (Section 7.3.9 of Vol. 1). See Section 3.4.4.3 for more details about the requirements associated with these routes. If SCE chooses to waive its status as a Participating Special Entity and participate as a developer, then additional MSHCP requirements may apply, including associated Cell Criteria.

The Proposed Project area is also found within Constrained Linkage Area 22, which identifies the San Timoteo Creek as a critical corridor for wildlife movement in the region. The primary conservation goal for this linkage is to maintain the habitat quality for all associated species, including least Bell's vireo, Los Angeles pocket mouse, and other large mammal species using the creek as a wildlife corridor. The MSHCP specifically states that the maintenance of floodplain processes within the region and the management of edge conditions are necessary to ensure the primary goal is reached (Section 3.2.3 of the plan).

Within this larger area are two sub-regions, labeled as Proposed Linkage 5 and Proposed Linkage 12. These smaller areas within the San Timoteo Creek region have specific planning and conservation goals geared toward the species and habitats that exist there. Goals for this region include:

- Maintain wetlands for purposes of connection and wildlife dispersal, as well as wetland species Conservation
- Maintain a contiguous connection between potential Conservation in San Bernardino County and the proposed Badlands Core Area
- Maintain winter roosts for white-tailed kite
- Maintain Core and Linkage Habitat for bobcat
- Maintain Linkage Area for mountain lion
- Maintain Linkage Area for Stephens' kangaroo rat
- Determine potential for scattered populations of San Bernardino kangaroo rat along San Timoteo Creek
- Determine presence of potential Core Area for Los Angeles pocket mouse in San Timoteo Creek

In addition to identifying habitat for conservation the MSHCP provides a planning framework for future facility projects within the planning region. This type of project designation provides allowances for pre-existing projects and facilities including utilities and roadways within Critical Areas for conservation to install and upgrade their facilities in order

to provide critical and necessary functions to the region. The El Casco substation and reconductoring project is not addressed specifically in the Future Facilities section of the MSHCP, but coverage for this project is provided under Section 7.3.9 of the Plan:

Future facilities such as water, sewer, electrical, gas and solid waste facilities that are described in more detail in Section 7.3.9 of the MSHCP would also be permitted within existing Public/Quasi-Public Lands subject to a finding of equivalent conservation provided through individual project mitigation. An equivalency analysis shall be provided by either the Permittee or the entity requesting a Certificate of Inclusion. The analysis shall be provided for review and concurrence by the Wildlife Agencies in narrative and graphic form comparing the effects/benefits of the proposed project including specific mitigation and compensation for lost conservation values, with the conditions prior to facility implementation. The analysis shall consider specific project design features, including consideration of the siting and design guidelines, contained in Section 7.5.1, as well as the Best Management Practices contained in Appendix C of the MSHCP. Impacts to Habitats within existing Public/Quasi-Public Lands shall be compensated by purchase and dedication into the MSHCP Conservation Area of land that is in addition to the Additional Reserve Lands.

### **3.4.3 Proposed Project Impacts**

#### **3.4.3.1 Construction Impacts**

**3.4.3.1.1 El Casco Substation.** Of the total 28 acres, approximately 14 acres of the site would permanently be impacted as follows: approximately 10.08 acres of disturbed/ruderal habitat, 3.50 acres of scrub oak chaparral, 0.74 acres of non-native grassland, 0.02 acres of developed area, and 0.01 acres of chamise chaparral would be removed (Table 3.4-5). To function as a staging area and to facilitate construction of the substation, additional area would be cleared including cut and fill slopes. This would result in temporary impacts of an additional 7.98 acres consisting of 3.71 acres of scrub oak chaparral, 2.99 acres of disturbed/ruderal habitat, 1.03 acres of non-native grassland, 0.12 acres of chamise chaparral, 0.10 acres of developed areas, and 0.03 acres of southern mixed chaparral. The construction of the substation would impact primarily raptor foraging habitat. Permanent impacts to 10.82 acres of raptor foraging habitat (disturbed/ruderal and non-native grassland combined) would not significantly affect resident raptors because there are large areas of suitable raptor foraging surrounding the substation site.

No direct impacts to biological resources are expected to occur from the proposed Horizontal Directional Drilling (HDD) under San Timoteo Creek and the adjacent railroad tracks and San Timoteo Road. The entry point is within the northeast corner of the substation footprint, and the exit point is in a disturbed area, both complying with the appropriate set-backs from

the creek and associated habitat. San Timoteo Creek is not expected to be adversely affected because the boring would be designed so that the top of the casings would be approximately 8 feet below the flow line of the creek. The creek is not expected to scour down to the top of the casings. This would be confirmed by geotechnical investigations prior to construction.

**TABLE 3.4-5  
IMPACT ACREAGE: SUBSTATION SITES 33 AND 38**

Habitat Type	Acres on Site 33			Acres on Site 38
	Permanent	Temporary	Total	Total
Southern Riparian Forest	~	~	~	0.2
Southern Willow Scrub	~	~	~	0.53
Disturbed Riversidean Sage Scrub	~	~	~	2.62
Scrub Oak Chaparral	3.50	3.71	7.21	~
Southern Mixed Chaparral	0	0.03	0.03	~
Chamise Chaparral	0.01	0.12	0.13	~
Non-native grassland	0.74	1.03	1.77	~
Disturbed/Ruderal	10.08	2.99	13.08	15.16
Developed	0.02	0.10	0.12	1.19
<b>Total</b>	<b>14.36</b>	<b>7.98</b>	<b>22.34</b>	<b>19.7</b>

At the present time, the specific water-based drilling fluid that would be used for conditioning the boring hole is not known, but would be selected based on the final geotechnical conditions at the site. The drilling fluid used would require the approval of the local permitting agency. Appropriate measures would be enacted to avoid accidental discharge of the water-based drilling fluid (i.e., a “frac-out”) into San Timoteo Creek during the directional boring under the creek for the two duct banks. HDD could potentially result in temporary increases in turbidity and sedimentation that could affect amphibians and habitat in San Timoteo Creek. Mitigation measure BIO-8 would limit potential impacts associated with HDD to less than significant levels.

Wildlife species and habitat in San Timoteo Creek may be impacted by improvement of the substation access road. Grading and road widening could cause siltation or sedimentation to be released in the creek. Suspended sediment can disrupt the growth of aquatic plants and interfere with biological processes of aquatic animals, such as fish and insects. SCE would obtain all necessary permits for the HDD and drainage improvements for the access road, such as a CDFG 1602 permit, a RWQCB 401 water quality certification, and an ACOE 404 permit. Mitigation measures BIO-1 and BIO-4 would further reduce the risk potential biological impacts to less than significant levels. Additionally, specific measures identified in Section 3.8, Hydrology and Water Quality, would also mitigate potential biological resource impacts associated with the creek.

Noise impacts during the construction of the proposed El Casco Substation and associated subtransmission and fiber optic circuits could adversely affect wildlife by frightening or repelling individuals, impairing communication, and impairing foraging success and predator detection. These effects are significant when they adversely affect the lifecycle of sensitive species, or constrain wildlife movement through a wildlife corridor. Construction noise has the potential to impact the lifecycle of sensitive wildlife species identified onsite, or that have a high potential to occur onsite. Avian species could be directly affected by noise impacts during nesting periods. These species could include sage scrub nesters such as the coastal California gnatcatcher and the Southern California rufous-crowned sparrow, and riparian-nesting birds such as the Bell's sage sparrow and least Bell's vireo.

Adverse indirect noise impacts could occur to other nesting migratory birds, including raptors, but would not necessarily be significant because of the lower sensitivity status of these species. However, with the implementation of BIO-3 Noise Control, impacts from noise would be considered less than significant.

In summary, impacts to biological resources due to the construction of the El Casco Substation would be less than significant with the implementation of mitigation measures.

**3.4.3.1.2 Banning Substation.** Construction impacts for this substation would be contained within the perimeter fence and would not adversely affect biological resources. The area within the substation perimeter fence is developed and does not support potential habitat for special status plant or wildlife species.

In summary, impacts to biological resources due to the construction at Banning Substation would be less than significant.

**3.4.3.1.3 Zanja Substation.** The area within the substation perimeter fence is developed and does not support potential habitat for special status plant species. A red-tailed hawk nest was observed in a subtransmission line tower at the perimeter fence immediately adjacent to substation. Construction at the substation site may affect nesting raptors if construction were to occur during the nesting season. Preconstruction nesting surveys (BIO-2) would be conducted prior to performing any work at the Zanja Substation. No impacts are expected from construction at the Zanja Substation.

In summary, impacts to biological resources due to the construction at Zanja Substation would be less than significant with the implementation of mitigation measures.

**3.4.3.1.4 Southerly 115 kV Subtransmission Line Route.** Several special status plant species currently occur, historically occurred, or have the potential to occur along the proposed subtransmission line route. Construction activities could result in direct effects to special status plant species, as well as removal or destruction of habitat. Impacts would be related to the following activities:

- Road grading and construction
- Pole site preparation and line stringing activities
- Tree and scrub removal to facilitate line/pole placement
- Movement of equipment and project materials

Each of these activities could potentially destroy or adversely affect sensitive species if they are present. Grading of previously undisturbed surfaces may occur to access structure pole sites or for cable pulling activities. Blading would remove rocks, large shrubs, and other objects from the soil surface. This would result in changes in habitat quality and conditions. Habitat could be removed at many structure locations, conductor tensioning and splicing locations, and at construction yards. Construction yards may not be graded in all cases; however, it is anticipated that these areas could be damaged by vehicle parking and storage of materials during construction.

Sensitive species present during construction in affected areas could be crushed from operation of heavy machinery and foot traffic. Construction activities would remove, destroy, or denude existing habitat, thereby potentially reducing available habitat for sensitive plant species. The potential adverse impacts to habitats associated with special-status plant species can be limited to less than significant levels by the implementation of SCE's typical BMPs and mitigation measures during construction activities. SCE compliance with the Western Riverside County MSHCP (BIO-4) would additionally mitigate for any impacts to sensitive plant species that are covered by the Plan.

Subtransmission lines can present a significant electrocution risk for raptors, ravens, and other large birds. To avoid risk to large birds, SCE would construct the subtransmission line to be raptor safe (BIO-14).

The loss of topsoil from grading or as a result of overland flow may increase the likelihood of exotic plant establishment in native communities. Nonnatives may be more successful establishing and surviving in disturbed areas than native species, thus resulting in suppressed native recruitment, altered community structure, degradation or elimination of habitat for native wildlife, and increased amounts of food and cover for undesirable nonnative wildlife (Bossard et al. 2000). The introduction of nonnative plant species into a community as a result of soil disturbance and erosion can increase the competition for resources such as water, minerals, and nutrients between native and nonnative species as well as alter site hydrology and sedimentation rates.

The establishment of nonnative weeds could affect special status species associated with the surrounding habitat and could therefore be considered potentially significant if not mitigated. As a means of avoiding and minimizing impacts due to nonnative species, implementation of mitigation measures outlined in the MSHCP would reduce the potential impacts associated with the establishment of nonnative weeds and invasive plants to less than significant levels.

In summary, impacts to biological resources due to the construction of the southerly 115 kV subtransmission line route would be less than significant with the implementation of mitigation measures.

**3.4.3.1.5 Mill Creek Communications Site.** Permanent impacts resulting from a new 110-foot self-supporting steel lattice antenna tower would occur adjacent to the existing communications building for microwave antennas, and temporary impacts would result from a 60-foot by 60-foot staging area. Installation would require removal of vegetation and would eliminate wildlife habitat. The proposed location of the new antenna tower is subject to further refinement through detailed engineering, and therefore, a detailed assessment the amount and type of vegetation to be removed is not possible at this time. Areas in the vicinity of the site support patches of disturbed habitat and areas of non-native grassland that may provide a good location for the tower and result in minimal impacts to native species and habitats should these areas be developed. Chaparral habitat is also present at the site and development of chaparral habitat would require mitigation to avoid significant impacts. These mitigation measures are outlined in the MSHCP.

In summary, impacts to biological resources due to the construction of a communications tower at the Mill Creek Communications Site would be less than significant with the implementation of mitigation measures.

**3.4.3.1.6 Fiber Optic System.** The fiber optic system would be installed on existing poles accessible by existing roadways or installed underground in existing duct banks with the exception of four new poles. Installing the line on existing poles would have no impact to biological resources. Installation of the line in duct banks would have no impact to biological resources. Installation of the four new poles could have adverse effects to biological resources.

Installation of the poles would create surface disturbance around each pole site. Vegetation would be removed and would result in the loss of wildlife habitat. If sensitive plant species are occurring on site, they could be crushed, removed, or damaged during construction. SCE would perform pre-construction surveys prior to construction of the four new poles and installation of the fiber optic line to ensure that no sensitive species are present. If sensitive species are present the implementation of the mitigation measures below would reduce impacts to less than significant.

Special status animal species, including several avian species, could occur throughout the fiber optic route, and could be present during the installation of the four new poles. Animals present during installation of the new poles and fiber optic line could be crushed, or dislocated from breeding or feeding areas. Preconstruction surveys would be conducted to ensure that no special status species, including nesting birds, are present in the area before installation of the new poles. If present, mitigation measures would be implemented in conformance with the MSHCP.



In summary, impacts to biological resources due to the construction of the fiber optic system would be less than significant with the implementation of mitigation measures.

### **3.4.3.2 Operational Impacts**

No significant impacts to biological resources would result from the operation of the Proposed Project.

### **3.4.3.3 Applicant Proposed Mitigation Measures**

#### **BIO-1. Environmentally Sensitive Areas.**

SCE would reduce impacts to sensitive habitat by avoiding grading or other ground disturbing activities near sensitive habitats to the greatest extent possible. However, where this is not feasible, environmentally sensitive areas such as rare plant populations or specific breeding habitat would be identified in the field to minimize the possibility of inadvertent encroachment using the following avoidance and mitigation measures:

- Flagging or otherwise marking sensitive plant species so construction crews would avoid direct or indirect impacts to these areas. Construction personnel shall be instructed to avoid intrusion beyond these marked areas.
- Monitor the known locations of special-status plant populations that might be found prior to or during the construction period, using a trained professional botanist. Monitor 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.
- Fencing construction limits that are adjacent to sensitive biological resources. Temporary fencing would consist of t-posts with orange barrier fence. Silt fences would also be included when construction occurs adjacent to streams.

#### **BIO-2. Pre-Construction Nesting Surveys.**

Causing the abandonment or removing active nests (with eggs or young) of any special status or non-special-status migratory birds and raptors violates the State Fish and Game Code and the federal MBTA. To avoid this impact, SCE would implement one of the following:

- Conduct all construction activity (including vegetation pruning or removal) during the non-breeding season (generally between September 1 and January 31) for most special-status and non-special-status migratory birds; or
- If construction activities are scheduled to occur during the breeding season (generally between February 1 and August 31), retain a qualified wildlife biologist to conduct pre-construction focused nesting surveys prior to vegetation trimming or removal activities. The biologist would monitor all work activities within these zones daily and assess their effect on the nesting birds. If the

biologist determines that particular activities pose a high risk of disturbing an active nest, the biologist would 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 SCE biologist would be notified and report the incident to the CDFG and USFWS.

### **BIO-3. Noise Control.**

SCE would minimize noise through careful work scheduling and having properly functioning mufflers on construction vehicles. In addition, to the extent practicable, no project vehicles, chain saws, or heavy equipment would be operated within the exclusion zone until the nesting season is over or the biologist has determined that nesting is finished and the young have fledged. If it is not practicable to avoid work within an exclusion zone around an active nest, work activities modified to minimize disturbance of nesting birds may proceed within these zones. The biologist would monitor all work activities within these zones daily and assess their effect on the nesting birds. If the biologist determines that particular activities pose a high risk of disturbing an active nest, the biologist would 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 would report this to the CDFG and USFWS.

### **BIO-4. Western Riverside County MSHCP Compliance.**

SCE would comply with all regulations and policies outlined in the MSHCP. This would include:

- The payment of Local Development Mitigation Fees and other relevant fees as set forth in Section 8.5 of the MSHCP or the purchase of conservation land.
- Compliance with the HANS process or equivalent process to ensure application of the Criteria.
- 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. This includes avoidance and minimization measures implemented in accordance with the species-specific objectives for those species. In the case of the least Bell's vireo, 90 percent of the occupied portions of the property that provide for long-term Conservation value for the vireo shall be conserved in a manner consistent with Conservation of the vireo. This would involve including 100 meters of undeveloped landscape adjacent to the Habitat conserved.
- Compliance with the policies for the Protection of Narrow Endemic Plant Species set forth in Section 6.1.3 of the MSHCP.

- Compliance with survey requirements as set forth in Section 6.3.2 of the MSHCP.
- Compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the MSHCP.
- Compliance with the Best Management Practices and the siting and design criteria as set forth in Section 7.0 and Appendix C of the MSHCP.
- The alignment for the proposed subtransmission line route currently passes through MSHCP Criteria Cells 936, 1032, and 1024 of The Pass Area Plan. The conservation goals for these cells are provided in the Biology Technical Report as a guideline for design criteria.

**BIO-5. Dust Control.**

Adequate dust control measures and best management practices (BMPs) would be instituted during earthwork to reduce harmful “edge effects” to sensitive resources in the project area.

**BIO-6. Substation Landscaping.**

The cut slopes and constructed berms associated with the substation building pad would be revegetated with the appropriate native species subject to an approved revegetation plan.

**BIO-7. Nocturnal Lighting.**

Nocturnal lighting during construction and normal operation would be minimized on the approximate 14-acre substation site by using directional lighting to minimize any indirect impacts on the surrounding habitat, especially the riparian habitat associated with San Timoteo Creek shall be avoided.

**BIO-8. Horizontal Directional Drilling.**

Appropriate measures should be enacted to avoid accidental discharge of the water-based drilling fluid (i.e., a “frac-out”) into San Timoteo Creek during the HDD under the creek for the two duct banks. Geotechnical investigations would be conducted to ensure that the boring would be situated at a depth such that there is no danger of the creek bed scouring down to the casings. HDD should be conducted during a period of low flow in the creek to reduce the potential impact of a frac-out. The HDD contractor would prepare and implement a frac-out plan to minimize the possibility of its occurrence and respond should one occur. Some possible measures that may be utilized in this plan would include, but not be limited, to the following:

- Require a full-time biological monitor to attend the HDD.
- Require boring crews to strictly monitor drilling fluid preserves.

- Provide containment equipment on site during construction activities associated with HDD plan. Containment equipment shall include staked and floating silt barriers to isolate frac-out locations from flowing water.
- Monitor waters downstream of the crossing site to quickly identify any seeps and immediately stop work if a seep is detected.
- Prepare a contingency plan in the event that seeps are monitored in the stream.

In addition to above mitigation measures, the HDD would adhere to the following in order to avoid additional permitting requirements:

- The directional bore would be at least eight feet below the channel to avoid impacts to the base flow of the stream.
- All impacts to riparian vegetation would be avoided by placing bore pit outside of riparian habitat.
- No resulting spoils or sediment would enter the waterway.
- HDD would occur outside of the least Bell's vireo breeding season.

**BIO-9.** Standard BMPs would be imposed to avoid siltation or other potential construction-related impacts on the drainage adjacent the Zanja Substation.

**BIO-10.** Specific mitigation measures for impacts from the construction of the proposed southerly 115 kV subtransmission line route would be provided as the project footprint is finalized. Efforts would be made to minimize impacts from subtransmission line road improvement in sensitive habitat area to the maximum extent practicable. All construction activity and equipment would be limited to the access roads and spurs during the installation of the 115 kV line.

**BIO-11.** Pre-construction surveys would be conducted along the subtransmission line access roads, proposed spur areas, and location of the four new fiber optic poles between transmission tower T30 and the existing distribution poles. Surveys are intended to avoid disturbance to sensitive species with the potential to occur in the area, including special management plant species, Los Angeles pocket mouse Stephens' kangaroo rat, and western burrowing owl. Impacts on suitable habitat for these species would be avoided to the extent practicable. If suitable habitat for these species is detected within impact areas, then surveys for these species are required under the MSHCP. Fees paid pursuant to the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan or MSHCP may be required if impacts on suitable Stephens' kangaroo rat habitat are unavoidable.

**BIO-12. Mill Creek Communications Site.**

It is recommended that the proposed tower and construction staging area at the Mill Creek Communications Site are located in an area of disturbed or non-native grassland habitat to

minimize impacts on special status biological resources. Construction-related disturbance should be limited to existing dirt roads, developed lands, and areas of disturbed habitat. Impacts on undisturbed habitat, such as chaparral, shall be avoided to the extent feasible. If impacts on undisturbed habitat or existing trees are unavoidable, then rare plant surveys shall be conducted prior to vegetation clearing. Furthermore, vegetation clearing shall take place outside of the bird breeding season.

**BIO-13. 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 would 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.

**BIO-14.** 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).

**3.4.4 Alternatives**

**3.4.4.1 Northerly 115 kV Subtransmission Line Route Alternative**

Construction impacts along the northerly 115 kV subtransmission line route alternative would be similar to the proposed route, and may include the expansion of existing roads along the subtransmission corridor, and the construction of some new spur roads.

A few special status plant species and vegetation communities exist along this corridor. Between mileposts 0.8 and 2.1 there is a large population of Plummer's mariposa lily, and a few Cleveland monkey flower plants. Several special status vegetation communities are located in the project area: Between mileposts 0.2 and 0.5 there is a large alkali meadow, at milepost 5.7 there is a disturbed needlegrass community, and there are several locations throughout the corridor that support Riversidean sage scrub. No point locations of sensitive fauna species were located directly in the northerly 115 kV subtransmission line route alternative alignment or on the existing subtransmission line roads.

The operational impacts of the northerly 115 kV subtransmission line route would be similar to the proposed southerly route.

In summary, impacts to biological resources due to the construction and operation of the northerly 115 kV subtransmission line route alternative would be less than significant with the implementation of mitigation measures.

**3.4.4.1.1 Applicant Proposed Mitigation Measures.** If this alternative is selected, the mitigation measures would be similar to those for the Proposed Project.

**3.4.4.2 Site 38 (Alternate Site)**

The 19.7-acre site would permanently impact approximately 15.16 acres of disturbed/ruderal habitat, 2.62 acres of disturbed Riversidean sage scrub, 1.19 acres of developed land, 0.53 acres of southern willow scrub, and 0.20 acres of southern riparian forest (Table 3.4-5). The riparian habitat composed of southern willow scrub and southern riparian forest is occupied by least Bell's vireo, and transient willow flycatchers.

The loss of 0.73 acres of occupied least Bell's vireo habitat would occur if this alternative substation site is chosen. However, impacts to this occupied habitat would be mitigated to a level below significance. The loss of 0.73 acres of transient willow flycatcher habitat is not considered significant because the willow flycatchers are migrating through and are only present for a short period of time. Migrant willow flycatchers are not territorial and can use suitable habitat up and downstream of this site. Permanent impacts to 15.16 acres of raptor foraging habitat (disturbed/ruderal and non-native grassland combined) would not significantly affect resident raptors because there are large areas of suitable raptor foraging surrounding the substation site.

No significant impacts to biological resources would result from the operation of this substation.

In summary, impacts to biological resources due to the construction and operation of the substation at the Site 38 site alternatives would be less than significant with the implementation of mitigation measures.

**3.4.4.2.1 Applicant Proposed Mitigation Measures.** If Site 38 is selected, the mitigation measures would be similar to those for the Proposed Project.