D.2 Biological Resources

D.2.1 Regional Setting and Approach to Data Collection

Data Collection Methodology

Literature Review

Prior to the field portion of the biological study, a literature review was conducted to determine the federal and State listed endangered, threatened, proposed endangered or threatened, rare, and special-status plant and wildlife species that have potential to occur within the vicinity of the Proposed Project. The literature review included a literature search of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Electronic Inventory for the 51 USGS 7.5' topographic quadrangles that the Proposed Project would traverse. A literature search of plant and wildlife species that are considered sensitive by local jurisdictions was also conducted. The California-related search included review of the California Endangered Species Act (CESA), California Native Plant Protection Act, California Desert Native Plant Act, Western Riverside County Multi-Species Habitat Conservation Plan, Coachella Valley Multi-Species Habitat Conservation Plan (DRAFT), and review of the General Plans for the Cities of Banning, Beaumont, Calimesa, Redlands, Loma Linda, Colton, and Grand Terrace. Searches of sensitive plant and wildlife species within Arizona included review of the State Endangered Species Act (AESA), including suitable habitat or presence of species within Maricopa and La Paz Counties; State of Arizona listed wildlife species, including Wildlife of Special Concern in Arizona (WSCA); Arizona Department of Agriculture's (ADA) Arizona Native Plant Law (Arizona Revised Statute; sensitive status species listed by the Bureau of Land Management (BLM) that occur in the Phoenix and Yuma, Arizona Field Office areas and in the California Desert District Office areas; Migratory Bird Treaty Act (MBTA) of 1918; and noxious weeds listed by ADA, ASLD, and BLM. The literature review also included a review of existing biological documents for the ROW including:

- Devers–Palo Verde No. 2 Transmission Line Project Results of Biological Clearance Studies (E. Linwood Smith and Associates, 1987)
- Proponents Environmental Assessment; Devers–Palo Verde No. 2 Transmission Line Project (Mackness and Miller, 2005)
- Biological Resources Inventory Report for the Devers–Palo Verde No. 2 Transmission Line Project (Dames and Moore, 1994)
- Devers-Harquahala 500 kV Transmission Line Sensitive Biological Resources Inventory (Environmental Planning Group, 2003)
- West of Devers 230 kV Transmission Line Upgrade Biological Resources Inventory Report (Bio-Resource Consultants, 2003)
- Combined Desert Tortoise Report Protocol Survey Report (Alice Karl and Associates/Tetra Tech EC, Inc./Greystone Environmental Consultants, Inc., 2005)
- Desert Southwest Transmission Project and Devers–Palo Verde No. 2 Transmission Line Project Coachella Valley Milkvetch and Mojave Fringe-toed Lizard Biological Survey Summary Report (Greystone, 2005)

Biological Reconnaissance Surveys

Arizona. A team of biologists surveyed the Arizona portion of the proposed DPV2 route on October 6, 7, 12, 13, 25, 26, and 27, 2005. In addition to performing an overview survey of the entire length of the proposed route, each tower site and spur road where disturbance would occur was surveyed. Aerial maps and staked locations were utilized for project area location. At each site, a data sheet was completed that included the following information. site name, observer, date, UTM coordinates, photo number, plant and wildlife species observed, site description, and threatened, endangered, and/or special status species concerns (SWCA, 2005). Vegetation types were classified and described according to Brown (1994). The general project area was also surveyed in 2002 and 2003 and the results of these surveys were used as a general reference in this section (EPG, 2003).

California. A biological reconnaissance survey was conducted by a qualified botanist and wildlife biologist who are familiar with the resources in the project vicinity. Field surveys were conducted during October and November 2005. Specific dates of the surveys were October 18–21 and 31, and November 1–3, 2005 (ECORP, 2005). Field conditions were dry and sunny with temperatures between 65 degrees Fahrenheit (ºF) and 78ºF and winds between 0 and 6 miles per hour.

The purpose of the field survey was to review and verify or modify the existing biological conditions and vegetation communities previously reported along the proposed right-of-way (ROW). The survey focused on a standard 200-foot width for the ROW and an additional buffer area of 500 feet on either side of the ROW. The reconnaissance survey was conducted beginning at the California-Arizona border and continued in an east to west direction, including all spurs and transmission lines that are proposed for removal or modification as part of the Proposed Project. The reconnaissance survey consisted of driving accessible areas of the ROW while reviewing the previous vegetation maps and making necessary changes to the vegetation communities on aerial photographs of the site. Areas that could not be accessed were surveyed from vantage points using binoculars. Areas that were inaccessible and could not be viewed from vantage points were mapped based on findings in previous reports and by comparing inaccessible areas on the aerial photograph to similar appearing areas that were accessible or that could be viewed through binoculars. The biologist and botanist frequently stopped and surveyed the ROW on foot in order to identify local plant and wildlife species, especially in habitat communities that afforded a greater abundance of biological resources, such as near water, riparian, and woodland. On-the-ground surveys focused on areas where ground disturbing activities would occur, including new transmission tower locations, existing transmission towers that would be removed, staging areas, pulling stations, and access roads. All plant and wildlife species observed were recorded in field notebooks and on project data sheets. Results of the literature review and field surveys were analyzed in order to identify portions of the ROW that are known to support listed and special-status plant and wildlife species, or are most likely to support habitat for listed and special-status plant and wildlife species.

D.2.1.1 Regional Setting

Section D.2.1 discusses the biological resources for the Proposed Project as a whole, and is grouped according to the resource location, either Arizona or California. Section D.2.1.1 presents the regional biological resources setting information. Section D.2.1.1.1 provides an overview of vegetation resources, and Section D.2.1.1.2 provides an overview of wildlife resources. Section D.2.1.1.3 discusses sensitive plant and wildlife species that exist within the project area. The final section is Section D.2.1.1.4, which provides an overview of the special habitat management areas that are located within the Proposed Project area.

Arizona

The Proposed Project would extend across approximately 102.2 miles of southwestern Arizona. The Arizona portion of the Proposed Project would be located within southwestern Arizona, which is a relatively undeveloped area of the western Sonoran Desert. Desert, mountains, hills, canyons, valleys, bajadas, and washes or arroyos are all part of the landscape within this area. This region of southwestern Arizona consists of mostly native desert habitats, including pinyon-juniper or mixed shrub-scrub uplands, saguaro cactus forest, creosote-mesquite scrublands, xeroriparian, and riparian vegetation communities. Disturbed areas are also present along the route, including agricultural, pipeline and power pole infrastructure, mining activities, canals, roads (dirt and paved), grazed areas, and recreational activities. Elevations within the Arizona portion of the Proposed Project range from approximately 249 feet above mean sea level (msl) to approximately 2,182 feet above msl. In Arizona the Proposed Project would traverse many small and a few large ephemeral washes, but only one permanent watercourse, the Colorado River, would be crossed.

Within southwestern Arizona, the Proposed Project would traverse western Maricopa and southern La Paz Counties. The proposed route would begin in Maricopa County south of I-10 in the Harquahala Plain and north of Saddle Mountain, and would proceed east, until it would turn north and cross over I-10 and the Central Arizona Project (CAP) canal. Next the route would proceed west through the southern end of the Big Horn Mountains where it would cross over and parallel the CAP canal. The route would then turn southeast crossing over I-10 again, and would continue across the Harquahala Plain through the northern end of the Eagletail Mountains until it would enter into La Paz County. At this point, the route would proceed through the Ranegras Plain and enter the northern portion of the Kofa NWR, south of the New Water Mountains and north of the Kofa Mountains. The route would then traverse across the La Posa Plain and State Highway 95, just clip the northeastern corner of the Yuma Proving Grounds (YPG), and proceed northwest through the central portion of the Dome Rock Mountains. The route would then turn southwest, and cross the Colorado River and the Arizona–California state line.

California

In California, the ROW for the Proposed Project is located within Riverside and San Bernardino Counties. The ROW would generally parallel Interstate 10 (I-10) between the Town of Blythe, at the California-Arizona border in Riverside County, and the Vista Substation in San Bernardino County. Except for the western end of the proposed route, the majority of the route would be located in Riverside County. A large portion of the proposed route is located within the Colorado Desert, which is the western extension (and subdivision) of the Sonoran Desert that covers southern Arizona and northwestern Mexico. The Colorado Desert is a desert of much lower elevation than the Mojave Desert to the north, and much of the land lies below 1,000 feet in elevation. Common habitat communities within the Colorado Desert include sandy desert, scrub, palm oasis, and desert wash. Summers are hot and dry and winters are typically cool and moister. The proposed route would cross several topographic and geographic features, public lands, private lands, and Indian land including, but not limited to, the Colorado River, City of Blythe, Palo Verde Valley, Chuckwalla Valley, Coachella Valley, Morongo Indian Reservation land, and San Timoteo Canyon.

In the western portion of the proposed ROW, the route would cross urbanized areas, canyons, and foothills, and traverse unincorporated areas of Riverside and San Bernardino Counties, and portions of the cities of Banning, Beaumont, Calimesa, Redlands, Loma Linda, Colton, and Grand Terrace. The desert scrub transitions to chaparral and sage scrub communities as the proposed route would progress through the area around the cities of Beaumont and Banning.

The ROW is located within a region that is characterized by a diversity of sensitive and unique types of native vegetation communities, including perennial and ephemeral streams, riparian habitat, desert dunes and washes, oak woodland, Riversidean alluvial fan sage scrub, Riversidean sage scrub, and coastal sage scrub. In addition, the diversity of vegetation communities in the proposed ROW provides a wide array of habitats that are available for wildlife species to utilize as foraging, breeding, and over-wintering areas. The ROW is also located in a region of varying topography that ranges from mountain ranges to relatively flat valleys and low desert areas. Substantial human impacts to desert habitats, coastal sage scrub, chaparral, riparian habitats, woodlands, and animal populations have resulted in a relatively fragmented distribution of native vegetation communities in the region. Plant communities generally separate themselves along environmental gradients related to soil type, hydrology, precipitation, humidity, salinity, exposure to wind, and altitude (Whittaker, 1967). The dominant vegetation types are discussed in more detail in Section D.2.1.1.1 below.

D.2.1.1.1 Vegetation Overview

Arizona

The Arizona portion of the Proposed Project would be primarily located within the Sonoran Desert scrub biotic community, as defined by Brown (1994). Within this biotic community, two subdivisions of Sonoran Desert scrub and two series within the subdivisions are represented (see Figure D.2-1). These include the Creosote Bush–White Bursage series of the Lower Colorado River Valley subdivision and the Palo Verde–Cactus–Mixed Scrub series of the Arizona Upland subdivision. Several areas also contain an ecotonal, or transitional zone between these two subdivisions of Sonoran Desert scrub. However, disturbed areas are also present, mostly along the eastern portion of the Proposed Project route where the native vegetation has been removed and the area was converted to agricultural use. Additionally, a portion of the route that would be located adjacent to the Colorado River is within the Sonoran Riparian Deciduous Forest and Woodland biotic community (Brown, 1994). However much of this plant community has been severely compromised by the invasion of non-native species such as saltcedar (*Tamarix* spp.). Further detail for each of these series is provided below.

Creosote Bush–White Bursage Series. The majority of the Proposed Project route within Arizona would be located within the Lower Colorado River Valley subdivision of the Sonoran Desert scrub biotic community. This subdivision represents the largest area of the Sonoran Desert. This area is characterized by broad alluvial valley floors dominated by creosote bush (*Larrea tridentata* var. *tridentata*) and white bursage (*Ambrosia dumosa*). Creosote bush communities strongly dominate alluvial valley bottoms and frequently are dominant along mountain slopes. Although not a dominant part of this vegetation community, cacti species often include desert Christmas cactus (*Opuntia leptocaulis*), prickly pear (*O.* spp.), saguaro (*Carnegia gigantea*), and barrel cactus (*Ferocactus* spp.). In addition to the upland vegetation, xeroriparian vegetation can be found along drainages in this community.

Xeroriparian vegetation is associated with an ephemeral water supply (ephemeral washes typically flow only briefly, usually in direct response to significant precipitation in the immediate vicinity). Typically xeroriparian vegetation occurs as a linear corridor of sparse to dense shrubs and trees in areas with comparatively high soil moisture, such as washes and floodplains. Common species include mesquite (*Prosopis* spp.), catclaw acacia (*Acacia greggii*), and desert ironwood (*Olnyea tesota*). These areas typically contain plant species that are also found in upland habitat, although riparian plants are commonly larger and occur at higher densities than those in adjacent uplands.

Palo Verde–Cactus–Mixed Scrub Series. This community type occurs at several locations along the proposed route. The palo verde–mixed cacti series occurs on the higher elevation slopes at the edges of the valleys and on rocky soils. This association is generally dominated by foothill palo verde (*Parkinsonia microphylla*) and triangle burr ragweed (*A. deltoidea*). Saguaros and other cacti including desert Christmas cactus, prickly pear (*O. phaeacantha* and/or *engelmannii*), pincushion cactus (*Mammallaria* sp.), and hedgehog cactus (*Enchinocereus* sp.) are also usually present. In addition to the upland vegetation, xeroriparian vegetation can be found along drainages in this community.

Sonoran Riparian Deciduous Forest and Woodland. This vegetation community is found only along the Proposed Project route along the Colorado River. The Sonoran Riparian Deciduous Forest and Woodland is a deciduous riparian community dominated usually either by velvet mesquite or Fremont cottonwood (*Populus fremontii*) and/or Goodding's willow (*Salix gooddingii*). Understory grasses are typically abundant. Typically perennial or near-perennial streams or springs are necessary to provide water for the trees, although this is not always the case for the mesquite series. This community is divided into the following two series, based on the dominant tree species: (1) Mesquite series or (2) Cottonwood-willow series. However, habitat that occurs in the area where the Proposed Project alignment crosses the Colorado River has been degraded by the invasion of saltcedar (*Tamarix* spp.), an invasive non-native species.

Developed and Disturbed Areas. Some areas along the Proposed Project route have been degraded or disturbed by past and present land uses. These disturbed areas include agricultural areas, pipeline and power line infrastructure, mining activities, canals, roads (dirt and paved), illegal dumping, grazed areas, and recreational activities including off-road vehicle uses. These activities have resulted in varying intensities and amounts of disturbance along the Proposed Project. Disturbed areas are typically dominated by populations of non-native weedy annuals including Russian thistle (*Salsola tragus*), Asian mustard (*Brassica tournefortii*), and Mediterranean grass (*Schismus* spp.). Puncture vine (*Tribulus terrestris*), a noxious weed, was observed at several locations along the Proposed Project alignment. Due to the level of disturbance associated with certain sections of the proposed route, it is possible that other species listed as noxious by the BLM or Arizona may also occur.

California

The eastern portion of the Proposed Project within California would occur within the Lower Colorado River Valley (Colorado Desert) subdivision of the Sonoran Desert. The western lowland basins are dominated by creosote bush, white bursage, and saltbushes (*Atriplex* ssp.) (Brown, 1982) (see Figures D.2-2 and D.2-3). The climate is very arid, with as little as five inches of precipitation per year. The Colorado Desert generally is composed of broad alluvial valley floors and is usually dominated by creosote bush (*Larrea tridentata*), in association with white bursage on rocky mountain slopes, bajadas or intergraded slopes, as well as in the alluvial valleys. These are also typically vegetated with populations of native grass such as big galleta (*Pleuraphis rigida*) which occur on the finer textured soils. Numerous dry washes occur within the valley bottoms that may support populations of desert trees and shrubs including blue palo verde (*Cercidium floridum*), ironwood (*Olneya tesota*), honey mesquite (*Prosopis glandulosa*), white bursage, smoketree (*Cotinus coggygria*), and sweet bush (*Bebbia juncea*), as well as other upland plants typical of the surrounding habitats.

Desert scrub habitat transitions to chaparral and coastal sage scrub communities just west of the City of Banning. The western area of the California portion of the Proposed Project would lie largely within the most inland and interior extension of South Coast Floristic Region of California (Hickman, 1993). Specifically, this western area would lie within the Transverse Ranges and a small portion of the Peninsular Ranges

(Mac et al., 1998). The Transverse Ranges include the San Bernardino, San Jacinto, Santa Monica, Santa Ynez, Topatopa, Santa Susanna, Liebre, and Sierra Pelona ranges. The Peninsular Ranges are a group of mountain ranges which stretch 1500 km (900 miles) from southern California in the United States to the southern tip of Mexico's Baja California peninsula; they are part of the North American Coast Ranges that run along the Pacific coast from Alaska to Mexico. The Peninsular Ranges include the Santa Ana Mountains, San Jacinto Mountains and Laguna Mountains of southern California with the Sierra Juarez, Sierra San Pedro Mártir, and La Giganta mountains of Baja California. Mount Palomar, home to Palomar Observatory, is in the Peninsular Ranges in San Diego County. The Peninsular ranges run predominantly north-south, unlike the Transverse Ranges to their north, which mostly run east-west.

These mountains all become hotter and drier to the east, where they border the Mojave (and Sonoran) Desert. Chaparral dominates the vegetation at lower elevations. Although these plant communities are adapted for a dry climate with the occasional brush fire, the frequency of wildfires in some of the areas has resulted in an open, disturbed vegetation community. Developed areas are prominent in and adjacent to the proposed ROW in the western portion of the Proposed Project. Due to the proximity to developments, much of the chaparral and sage scrub communities exhibit an understory of non-native grasses and invasive weeds that thrive in disturbed conditions. Disturbance along the proposed ROW has resulted from a variety of factors including, but not limited to, agricultural activities, cattle grazing, off-road vehicles, and utility corridors.

The vegetation communities found throughout the California segments of the Proposed Project are discussed in detail below. Other areas that exhibit plant communities that warrant discussion include agricultural areas, pasturelands, and windfarm facilities. A description of these developed and disturbed areas is also included below. Upland habitats were classified using Sawyer and Keeler-Wolf (1995).

Desert Scrub and Desert Dunes. The desert scrub communities can be classified as creosote bush scrub, brittlebush scrub, salt bush scrub, or catclaw scrub depending on which of the following plants is dominant, creosote bush, brittlebush (*Encelia farinosa*), saltbush, or catclaw acacia, respectively. Each community typically exhibits all four species, three of which occur as lesser components. The desert scrub communities are characterized by widely spaced shrubs, typically between 1 to 10 feet tall, on well-drained secondary soils of slopes, fans, and valleys. The most common of the desert scrub communities found along the proposed route is creosote bush scrub. Other components within these plant communities include ocotillo, desert croton (*Croton californicus*), indigo bush (*Psorothamnus schottii*), white bursage, and big galleta grass. Acacia scrub is dominant on a portion of the proposed ROW where the area has been heavily grazed. Several flowering annuals are expected to occur throughout the desert scrub during years of good rainfall. Species expected to occur during years with good rainfall and resultant desert blooms include members of the families Poaceae, Polygonaceae, Papaveraceae, Crassulaceae, Fabaceae, Onagraceae, Polemoniaceae, Hydrophyllaceae, Boraginaceae, and Asteraceae.

The physical formation of the desert dune communities can be attributed to two basic origins: aeolian (wind-blown) or alluvial (deposited by flowing water). Along the proposed project's ROW within the Colorado Desert, the majority of the desert dunes are of aeolian origin, and are populated with a sparse distribution of shrub and scrub species, including creosote bush, saltbush, and mesquite. However, in some places, such as at the western end of the proposed project, aeolian and alluvial dunes may be found to intersect where both wind and water currents influence dune formation. In this case, Riversidean alluvial fan sage scrub species may be found mixed with desert dune species. Desert dune areas within or adjacent to the proposed route are primarily considered stabilized or partially stabilized desert dunes. The sand accumulates and becomes somewhat anchored by both native and non-native plants (shrubs, annuals, and grasses).

Figure D.2-1. Vegetation Communities, Critical Habitat, and State and Federally Listed Species – Arizona

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Figure D.2-2. Vegetation Communities, Critical Habitat, and State and Federally Listed Species – Colorado River to Devers Substation

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Figure D.2-3. Vegetation Communities, Critical Habitat, and State and Federally Listed Species – West of Devers and Devers Valley No. 2

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Riparian, Ephemeral Drainages, and Desert Washes. Riparian habitat is associated with the drainages and rivers that hold water for a significant portion of the year or that have a high water table. Riparian communities are distinctly different from surrounding lands because of unique soil and vegetation characteristics that are strongly influenced by the presence of water. The riparian vegetation types present within the proposed ROW include: desert willow/scalebroom scrub, willow scrub, mule fat scrub, oak riparian, and willow forest. Riparian habitat along the proposed ROW is limited to the major rivers and systems and a few of the "larger" ephemeral drainages.

Scattered within the proposed route are numerous washes and perennial streams, each with characteristic riparian vegetation, the extent of which depends on the hydrology. Many of the washes are dry almost the entire year and generally support upland vegetation that is consistent with the surrounding habitat. More commonly, washes that support many of the same species that are found on nearby uplands exhibit a greater plant density and stature that tends to be noticeably taller. Other washes are comprised of looser, sandy alluvial soils that do not allow for permanent plant growth and exhibit little to no vegetation.

More established ephemeral drainages support plant species that differ from adjacent uplands and typically include scalebroom (*Lepidospartum squamatum*), willows (principally *S. exigua*), and mule fat (*Baccharis salicifolia*). Most of these plants are structurally taller and woodier than the adjacent upland scrub habitat and may occur as isolated individuals or as sparse stands within drainages.

The desert washes, most of which are relatively small, are characterized by a pattern of braided washes made up of channels where waters tend to focus, join, and flow to termini at playas, sand dunes, or the Colorado River. The washes in the proposed project ROW are typically populated with ironwood, blue palo verde, mesquite, and smoketree. The vegetation types associated with these washes provide unique habitats which are based on periodic flooding and substrate alterations, and a high water table. Because of periodic higher water availability, higher water table, and the accumulation of fine sediments, this is a community of relatively high productivity, and with high local and regional biological values.

Chaparral. The distribution of this community is patchy as a result of fire, development, and other human disturbances. Chaparral communities present within the proposed ROW include: scrub oak-chaparral, chamise-chaparral, and Riversidean sage scrub-chaparral. Upland sites with stony or alluvial soils are often largely chaparral. These habitats are found primarily on the north-facing slopes and hilltops. Chaparral consists of dense evergreen shrubs with distinctive sclerophyllous leaves, which are small, stiff, and thick. Desert chaparral is associated with desert scrub communities in the western portion of the Proposed Project that would occur within the Transverse Ranges. It is more open than most chaparral communities and does not burn as often as these other forms. Chaparral communities have adapted to fire by being able to resprout from specially adapted structures after the main-stem has been destroyed by fire and by being able to produce fire-resistant seeds at an early age that can live in the soil for decades until environmental conditions are favorable for growth. Shrubs tend to recover slowly after fire, and ephemeral annuals may occupy spaces between shrubs in the first few seasons following a fire. Chaparral along a majority of the Proposed Project has been impacted by historical uses (e.g., agriculture, grazing) that has resulted in the introduction of non-native grass species. These include the brome grasses (*Bromus* spp.) and wild oats (*Avena* spp.) which can often be found in the open spaces between shrubs. These introductions have also changed the frequency of fires and have resulted in a more open type of chaparral habitat.

Sage Scrub Communities. Sage scrub communities are present in a patchy distribution in some portions of the proposed ROW. Sage scrub vegetation is considered to be a lower seral stage of vegetative progression than is chaparral, and tends to be found at lower elevations than chaparral. It may be

maintained by a more frequent local wildfire regime than that of chaparral. Most of the sage scrub within and adjacent to the ROW is mixed with chaparral and/or grassland communities. In the absence of fire or other disturbance factors, areas that support a mixture of sage scrub and chaparral tend to eventually convert to a higher seral stage of the chaparral dominated community over time. Sage scrub communities present within the ROW include: Riversidean sage scrub-chaparral, Riversidean sage scrub, Riversidean alluvial fan sage scrub, and coastal sage scrub. Coastal sage scrub occurs from the eastern slopes of the Santa Ana Mountains to the San Jacinto Mountains at elevations of less than 5,000 feet. Sage scrub often occurs in a patchy distribution throughout its range (O'Leary, 1992). This plant community is dominated by low-statured, drought-deciduous shrubs and subshrub species. The composition of this community frequently varies depending upon the successional stage and physical circumstances of the area in which it occurs. The common plant species in this community include California sagebrush (*Artemisia californica*), California or flat-top buckwheat (*Eriogonum fasciculatum*), purple sage (*Salvia leucophylla*), laurel sumac (*Malosma laurina*), California encelia (*E. californica*), white sage (*S. apiana*), and black sage (*S. mellifera*). Other common species include brittlebush (*E. farinosa*), lemonade berry (*Rhus integrifolia*), sugarbush (*R. ovata*), yellow bush penstemon (*Keckiella antirrhinoides*), Mexican elderberry (*Sambucus mexicana*), sweet bush, boxthorn (*Lycium* spp.), shore cactus (*O. littoralis*), coastal cholla (*O. prolifera*), and tall prickly pear (*O. oricola*). Portions of the sage scrub in the ROW are considered mixed communities, in that they contain components of both sage scrub vegetative types and chaparral.

Riversidean Alluvial Fan Sage Scrub is a Mediterranean shrubland type that occurs in washes and on gently sloping alluvial fans. This community is comprised of drought-deciduous soft-leaved shrubs but it also has a significant component of the larger perennial shrub species more typically found in chaparral. Scalebroom is generally regarded as an indicator of this plant community. Other shrubs common to this community include white sage, redberry (*Rhamnus crocea*), flat-top buckwheat, our lord's candle (*Yucca whipplei*), California croton (*C. californicus*), cholla (*Opuntia* spp.), yerba santa (*Eriodictyon* spp.), mule fat, and mountain mahogany (*Cercocarpus betuloides*).

Grasslands. Grassland communities occur on deep soils of lower slopes and valley bottoms, the majority of which are now largely urbanized or used for grazing. Non-native grasslands are likely to be dominated by several species of grasses that have evolved to persist in concert with human agricultural practices. This community exists as both a monotypic grassland and mixed with other shrub-scrub communities. The grassland communities present within and adjacent to the proposed ROW include: grassland, grassland/chaparral, grassland/scrub mosaic, and catclaw/grassland/valley cholla. The grasslands are dominated by non-native grass species including ripgut (*Bromus diandrus*), foxtail chess (*B. madritensis*), soft chess (*B. hordeaceus*), barley (*Hordeum* spp.), rye grass (*Lolium multiflorum*), English ryegrass (*Lolium perrene*), rat-tail fescue (*Vulpia myuros*), Mediterranean schismus, and mustards (*Brassica* spp.) (Jackson, 1985; Sims and Risser, 2000). The presence of grassland communities may increase the frequency, duration, and extent of wildfires. This, in turn, has resulted in the establishment and spread of invasive and noxious weeds, and brought about a vegetative type conversion in some areas away from native perennial grasslands, such that only non-native grasses and other weedy annual species occur (Zedler et al., 1983).

Coast Live Oak Woodland. Coast live oak woodland vegetation occurs as scattered, isolated remnants within or in close proximity to the ROW. Coast live oak (*Quercus agrifolia*) is the characteristic dominant plant species. Larger drainages of the southerly slopes of the San Bernardino Mountains such as the San Gorgonio River, along San Timoteo Creek, Santa Ana Mountains, and adjacent drainages to the west support this habitat type. Understory shrubs in this community typically include poison oak (*Toxicodendron diversilobum*), gooseberry (*Ribes* sp.), herbaceous plants, and grasses.

Agricultural, Pastureland, and Windfarms. Agricultural lands consist of areas that are farmed on a consistent or intermittent basis. These areas are subject to various ground disturbing activities that have resulted in the complete or almost complete removal of native vegetation. The agricultural areas occurring along the proposed ROW generally consist of row crops including grains, cotton, and alfalfa, as well as fruit orchards including avocados and citrus trees. Most of the agricultural areas appear to be in constant production, although some fields likely lie fallow for certain periods of time. In some areas, the large extensive agricultural areas are crisscrossed by an extensive array of irrigation canals. The banks of these canals generally exhibit little or no vegetation, although those that do support vegetation are primarily covered by non-native weedy plant species. Small farms, plant nurseries, and horse stables also comprise a portion of the agricultural and/or pasturelands located along the ROW.

Pasturelands generally comprise those areas that are actively being grazed by livestock such as cattle, horses, sheep, or goats, or that have been obviously grazed in the relatively recent past. Historically, these areas likely supported native plant communities but the long-term use as grazing lands has resulted in the replacement of most or all of the native vegetation with native weedy species or non-native invasive grasses and weeds. In addition, the large, flat expanses of the valleys were historically used as pasturelands but as development has moved in, the pasturelands have been shifted to the hillier areas. These areas generally exhibit somewhat compacted soils from the hooves and bedding areas or changes in soil character resulting from the deposition of organic matter. In addition, these areas often exhibit an increase in erosion due to the removal of the vegetation by the grazing activities.

Windfarms, where large wind turbines on tall towers are used to produce electricity, are present along the western portion of the ROW. The historic vegetation that covered these areas was likely desert scrub, with creosote bush the likely dominant plant species. Much of the native vegetation in these areas has been removed or disturbed by the construction and maintenance activities associated with the windfarms. The current vegetation communities in these areas are generally comprised of a mix of non-native grasslands and open desert scrub.

Developed and Disturbed Areas. Developed or disturbed lands consist of areas that have been disked, cleared, or otherwise altered. Developed lands may include roadways, existing buildings, and structures. The largest areas of developed lands are Interstate 10, which mostly parallels the ROW, and in the cities along the ROW. Scattered developed areas, including freeway rest stops or isolated homes/ businesses also fall under the category of developed or disturbed areas.

D.2.1.1.2 Wildlife Overview

Arizona

Animals adapt to specific biotic and abiotic conditions that generally coincide with different plant community types. These community types are in turn influenced by a variety of factors which can limit their distribution or use by wildlife. Each wildlife species has its own habitat requirements based on the type and structure of the vegetation, and availability of food, water, and shelter resources. A large number of wildlife species are known to occur within the Sonoran Desert, specifically within Maricopa and La Paz Counties of Arizona. The geography of the area produces unique topographic and climactic features that allow the presence of these species. Central and western Arizona are dominated by the presence of the Sonoran Desert, and thus animal species found along the proposed route include a large variety of species appropriate to this environment. Because the habitat in Arizona is in general more homogeneous than communities located in the California segments of the Proposed Project wildlife species have been identified by group.

Wildlife species observed either directly (by sight) or indirectly (through sound or sign) during field reconnaissance along the proposed route include reptiles such as whiptail lizard (*Aspidoscelis* sp.), zebra-tailed lizard (*Callisaurus draconoides*), sidewinder (*C. cerastes*), desert iguana (*Dipsosaurus dorsalis*), and Sonoran desert tortoise (*Gopherus agassizii*). Avian species including red-tailed hawk (*Buteo jamaicensis*), kestrel (*Falco sparverius*), black-throated sparrow (*Amphispiza bilineata*), and loggerhead shrike (*Lanius ludovicianus*). Mourning dove (*Zenaida macroura*), gilded flicker (*Colaptes chrysoides*), western meadowlark (*Sturnella neglecta*), phainopepla (*Phainopepla nitens*), Gila woodpecker (*Melanerpes uropygialis*), and osprey (*Pandion haliaetus*) were also observed. Mammals observed included wild burro (*Equus asinus*), kangaroo rat (*Dipodomys* sp.), and wood rat (*Neotoma* sp.). The regional occurrences and ecological characteristics of these habitat types are described below.

Amphibians. In desert areas located away from the Colorado River, the only amphibians likely to be present are the highly adapted toads that appear on the desert floor in response to summer monsoon rainfall. These species spend most of the year sequestered in rodent burrows or wells dug into the soil awaiting the summer rains. When rainfall is sufficient, the toads emerge to breed in temporary rainfall pools and stock tanks. Species likely to be present include Couch's spadefoot toad (*Scaphiopus couchii*), Great Plains toad (*Bufo cognatus*), Sonoran Desert toad (*B. alvarius*), and red-spotted toad (*B. punctatus*). The Colorado River provides habitat to aquatic species such as the bullfrog (*Rana catesbiana*).

Reptiles. Depending on substrate, a fairly diverse group of lizards and snakes may be found in habitats traversed by the Proposed Project. Fine, sandy soils are likely to host such species as banded sand snake (*Chilomeniscus cinctus*), sidewinder (*C. cerastes*), and desert iguana (*Dipsosaurus dorsalis*). Rocky slopes, outcrops, and washes support a different herpetofauna that includes such species as long-tailed brush lizard (*Urosaurus graciosus*), chuckwalla (*Sauromalus obsesus*), desert spiny lizard (*Sceloporus magister*), desert horned lizard (*Phrynosoma platyrhinos*), western whiptail (*Aspidoscelis [Cnemidophorus] tigris*), and desert glossy snake (*Arizona elegans*), among others. The aquatic habitats associated with the Colorado River make the presence of aquatic species, such as the spiny softshell turtle (*Trionyx spinifera*), possible.

Birds. It is likely that more than 75 species of birds could be found in the Sonoran Desert portions of the Proposed Project over the course of a year including vultures *(Cathartes spp.*), hawks (Family Accipitridae), quail, doves (*Z. macroura*), roadrunner (*Geococcyx californianus*), owls (Family Strigidae, Tytonidae), goatsuckers (Family Caprimulgidae), swifts (Family Apodidae), hummingbirds (Family Trochilidae), woodpeckers (Family Picidae), and a fairly diverse array of songbirds (flycatchers (Family Tyrannidae), larks (*Eremophila alpestris*), swallows (Family Hirundinidae), wrens (Family Troglodytidae), gnatcatchers (Family Sylviidae), mockingbird (*Mimus polyglottos*), thrashers (*Toxostoma spp.*), shrike, vireos (Family Vireonidae), warblers (Family Parulidae, Peucedramidae), orioles (*Icterus spp.*), tanagers (*Piranga spp.*), grosbeaks (Family Cardinalidae), finches (*Carpodacus spp.*), and sparrows (Family Emberizidae). The Colorado River and associated aquatic, wetland, and riparian habitats add to the overall diversity of the avifauna of the Arizona portion of the proposed route. Many species of waterfowl (Family Anatidae), shorebirds (Family Charadriidae), wading birds (Family Ardeidae), and piscivores are present because of the Colorado River.

Mammals. Generally, the mammalian fauna along the Arizona portion of the Proposed Project is comprised primarily of small, nocturnal species of bats and rodents, including the highly desert-adapted Heteromyid pocket mice (*Perognathus sp.* and *Chaetodipus sp.*) and kangaroo rats (*Dipodomys sp.*). The presence of mine shafts, natural caves, and cliffs, would naturally attract several species of bats along the Proposed Project route. It is likely that bats forage along the proposed route in Arizona. Diurnal species present include black-tailed jackrabbit (*Lepus californicus*), Harris antelope ground squirrel (*Ammo-*

spermophilus harrisii), and rock squirrel (*Spermophilus variegatus*). Desert mule deer (*Odocoileus hemionus*) are present sparingly in foothills and along major washes. Desert bighorn sheep (*Ovis canadensis mexicana*) are fairly common in the Kofa NWR where the sheep population has remained stable and has been carefully tracked for over 14 years. Desert bighorn sheep can also be found in New Water and Plomosa Mountains with smaller populations in the Livingston Hills and the Dome Rock Mountains. The coyote (*Canis latrans*) is likely to be encountered almost anywhere along the Arizona portion of the Proposed Project. Kit fox (*Vulpes macrotis*) would also be expected to occur in the area.

Wild Horses and Burros. Wild horses and burros (*E. assinus*) were released by ranchers, miners, and others over the past 100 years, and are now common range land species in the western United States and particularly in Nevada, Arizona, and portions of California. Wild horses and burros are protected under Public Law 92-195, the Wild Free-Roaming Horse and Burro Act of 1971. Under this act, the BLM and United States Forest Service (USFS) are charged with managing and protecting these animals.

Wild horses prefer to graze on grasses and grass-like species found throughout the area located in the valley bottoms. They also utilize other shrubs and forbs when necessary. Foals are typically born in the spring and may be present in some areas during the proposed Project. HMAs that occur in the project area are identified in Section D.2.1.1.4 Overview of Special Habitat Management Areas.

California

The California portion of the Proposed Project supports a variety of habitats which are known to support a diversity of wildlife species, including mammals, birds, amphibians, reptiles, fish, and invertebrates. Each wildlife species has its own habitat requirements based on the type and structure of the vegetation, and availability of food, water, and shelter resources. The various types of wildlife habitats present in the ROW are described below.

Desert Scrub Habitats and Desert Dunes. Creosote bush scrub is the dominant plant community within the California segments of the Proposed Project. This habitat community has relatively limited plant species diversity and is structurally monotypic. These characteristics limit the wildlife species within the community to those that are adapted to harsh, arid environments.

Typical desert reptile species expected to occur within desert portions of the ROW include common collared lizard (*Crotaphytus collaris*), desert spiny lizard (*Sceloporus magister*), common chuckwalla, side-blotched lizard (*Uta stansburiana*), desert iguana (*Dipsosaurus dorsalis*), red coachwhip snake (*Masticophis flagellum*), sidewinder (*C. cerastes*), red diamondback (*C. ruber*), speckled rattlesnake (*C. mitchelli*), and desert tortoise (*G. agassizii*).

Common bird species expected to occur in the areas include: white-winged doves (*Z. asiatica*), greater roadrunner (*Geococcyx californianus*), loggerhead shrike, black-throated sparrow, northern flicker (*C. auratus*), verdin (*Auriparus flaviceps*), Gila woodpecker, Gambel's quail (*C. gambelii*), red-tailed hawk, common raven (*Corvus corax*), and prairie falcon (*F. mexicanus*).

Common mammal species likely to occur in desert scrub habitat include coyote (*C. latrans*), bobcat (*Lynx rufus*), American badger (*Taxidea taxus*), black-tailed jackrabbit, desert kangaroo rat (*D. deserti*), and desert pocket mouse (*C. penicillatus*).

Riparian and Wash Habitats. The proposed ROW crosses several desert washes, ephemeral drainages, and a few rivers, some of which support riparian communities. In the arid southwest, riparian habitats support higher species richness and densities of wildlife than any other desert habitat (Anderson and

Ohmart, 1984). Those riparian habitats that are structurally diverse and that support a high diversity of plant species would be expected to support a higher diversity of wildlife species. The dry desert washes that typically support sparser vegetation communities, or that support plant species typical of the adjacent uplands rather than riparian plant species, would be expected to support a less diverse array of wildlife species. Riparian habitats infested with a dense cover of non-native plant species, such as salt cedar (*Tamarix* spp.), also would be expected to support a lower diversity of wildlife species.

The riparian areas and drainages that support variations of the willow riparian community would be expected to support a variety of wildlife that includes amphibians, reptiles, birds, and mammals. Some of the bird species expected to utilize the willow riparian areas include white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperi*), red-shouldered hawk (*B. lineatus*), northern flicker and various woodpeckers, black phoebe (*Sayornis nigricans*), yellow warbler (*Dendroica petechia*), ash-throated flycatcher (*Myiarchus cinerascens*), and song sparrow (*Melospiza melodia*).

Mammal species likely to occur in association with riparian habitats include desert cottontail (*Sylvilagus audubonii*), desert woodrat, raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), mule deer, and several species of bat.

Amphibians commonly found in riparian habitats include pacific treefrog (*Hyla regilla*), California treefrog (*H. cadaverina*), and western toad (*B. boreas*). Common reptiles that typically inhabit riparian habitats include southern alligator lizard (*Elgaria multicarinata*), western fence-lizard (*Sceloporus occidentalis*), ring-necked snake (*Diadophis punctatus*), striped racer (*Masticophis lateralis*), and California kingsnake (*Lampropeltis zonata*).

The desert washes would be expected to support common bird species characteristic of the surrounding desert habitats, such as verdin, Lucy's warbler (*Vermivora luciae*), phainopepla, white-winged dove, common ground dove (*C. passerine*), and Crissal thrasher (*Toxostoma crissale*). Amphibians that are typically associated with desert wash areas include western spadefoot toad and Couch's spadefoot toad. Reptiles and mammals, in general, typically utilize the desert washes as part of their habitat but they tend to be opportunistic and will also utilize the washes when water is present.

Chaparral and Sage Scrub Habitats. Numerous reptile species including side-blotched lizard, western whiptail (*Aspidoscelis tigris*), orange-throated whiptail (*A. hyperythra beldingi*), gopher snake (*Pituophis catenifer*), California kingsnake, southern Pacific rattlesnake (*C. viridus helleri*), and red diamond rattlesnake (*C. rubber)* typically inhabit the chaparral and coastal sage scrub vegetation communities. Some of these species are most common in the open areas along trails or washes or in areas where the vegetation is less dense. These habitats also provide foraging, nesting, and shelter opportunities for numerous bird species including California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*), California thrasher (*T. redivivum*), Bewick's wren (*Thryomanes bewickii*), wrentit (*Chamaea fasciata*), bushtit (*Psaltriparus minimus*), and California quail. Mule deer, coyote, bobcat, raccoon, striped skunk, desert cottontail rabbit (*Sylvilagus audubonii),* and small fossorial rodents such as dusky-footed woodrat, desert woodrat, Pacific kangaroo rat (*D. agilis*), deer mouse, are also common in chaparral and sage scrub habitats.

Grassland Habitats. Wildlife species that occupy the grasslands are typically those that feed on the grasses, annual plants, and seeds produced by the plants. Typical bird species associated with the grasslands include: California towhee, black phoebe, chipping sparrow (*Spizella passerine*), white-crowned sparrow (*Zonotrichia leucophrys*), western meadowlark, and lesser goldfinch (*Carduelis psaltria*). The grasslands that are located relatively near water sources or those areas where vernal pools or seasonally ponded areas occur would be expected to support a few amphibian species, including western spadefoot

toad and western toad. Reptiles commonly found in the grasslands include gopher snake, red coachwhip, southern pacific rattlesnake, side-blotched lizard, western whiptail, and western fence lizard. Seed-eating mammals are also common in the grasslands. Mammals, such as deer mouse, western harvest mouse (*Rheithrodontomys megalotis*), southern grasshopper mouse (*Onochomys torridus*), house mouse (*Mus musculus*) (near developed areas), California ground squirrel (*S. beecheyi*), valley pocket gopher (*Thomomys bottae*), desert cottontail, black-tailed jackrabbit, and mule deer are often present. Common predators observed utilizing the grasslands for foraging include coyote, bobcat, fox, and several species of raptors.

Agricultural Areas, Pasturelands, and Windfarms. Agricultural areas are generally found on fertile soils that historically supported prime habitat for native species. Although agricultural fields can provide a year-round source of food for many wildlife species adapted or adjacent to disturbed areas, some agricultural practices such as disking, plowing, trapping, and applying pesticides and herbicides can reduce the value of these lands for wildlife. Suitable habitat for denning and nesting for such species generally occurs along the weedy edges of fields and irrigation canals as well as in the poorly maintained or fallow fields. Agricultural areas can provide a year-round water source for wildlife.

Where grazing has reduced native plant cover, there is generally a corresponding reduction in habitat value for wildlife species. However, some animals, such as raptors and burrowing owls (*Athene cunicularia*), may seek the non-native grasslands, pasturelands, and disturbed areas because the altered conditions have improved their foraging opportunities. Small lizards and rodent species including side-blotched lizards, western fence lizards, California ground squirrels, and deer mice are common species that occur in grasslands and other open habitats such as pasturelands and disturbed areas. Western meadowlarks, horned larks (*Eremophila alpestris*), and killdeer (*Charadrius vociferous*), common bird species that forage in open habitats, are also attracted to these areas.

Developed and Disturbed Areas. Developed and urban areas provide habitat for opportunistic wildlife species. American crows (*Corvus brachyrhynchos*), European starlings (*Sturnus vulgaris*), house sparrows (*Passer domesticus*), black phoebes, barn swallows (*Hirundo rustica*), and cliff swallows (*Petrochelidon pyrrhonota*) are bird species that often nest on artificial structures. Red-tailed hawks and common ravens frequently nest on the steel lattice towers of transmission lines. Coyotes, raccoons, and opossums (*Didelphis marsupialis*) frequently forage in residential areas and landfills.

Wild Horses and Burros

Wild horses and burros may also be found in the eastern most segments of California near the Colorado River.

D.2.1.1.3 Special Status Species Overview

The overview of special status species includes a description of the special status plant communities, plants, and wildlife species that either occur in the project area or that have a potential to occur. An extensive list of potentially occurring special status species was developed based on the species' range and elevational requirements, as well as on the species' habitat requirements. Species were included on the list if they were identified during the literature review of the CNDDB, CNPS, and Bureau of Land Management (BLM), ADA, Arizona Game and Fish Department (AZGF); California Department of Fish and Game (CDFG), and United States Fish and Wildlife Service (USFWS) Sensitive Species Lists.

The following criteria were used to determine the potential for each species to occur along the Proposed Project route:

- **Present:** Species was observed within the proposed route at the time of the reconnaissance surveys.
- **High:** Both a historical record exists of the species within the proposed route or its immediate vicinity (approximately five miles) *and* the environmental conditions associated with species presence occur along the route.
- **Moderate:** Either a historical record exists of the species within the immediate vicinity of the proposed route (approximately five miles), *or* the environmental conditions (including soil type) associated with species presence occur along the route.
- **Low:** No records exist of the species occurring within the proposed route or its immediate vicinity (approximately five miles) and/or the environmental conditions (including elevation ranges and vegetation communities) associated with species presence are marginal along the route.
- **Not Likely to Occur:** Species was not observed during reconnaissance surveys and species is restricted to environmental conditions (including elevation ranges and vegetation communities) that do not occur along the proposed route.

For the purposes of presenting the locations of where these species occur or may occur in a tabular format, the various segments of the transmission line have been given acronyms to easily identify them. The acronyms for each segment are shown in Table D.2-1. The discussions of the specific locations of sensitive vegetation communities and species are provided in Sections D.2.2 and D.2.3.

Table D.2-1. Segment Acronyms

Acronym	Transmission Line Segment	Section Number
HAR-KNWR	Harquahala to Kofa National Wildlife Refuge	D.2.3.1
KNWR	Kofa National Wildlife Refuge	D.2.3.2
KNWR-COR	Kofa National Wildlife Refuge to Colorado River	D.2.3.3
COR-MS	Colorado River to Midpoint Substation	D.2.3.4
MS	Midpoint Substation	D.2.3.5
CCRA	Cactus City Rest Area	D.2.3.6
DEV	Devers Substation	D.2.3.7
BN-BM	Banning	D.2.4.1
BN-BM	Banning and Beaumont	D.2.4.2
SBJ-VS	Calimesa to San Timoteo Canyon	D.2.4.3
SBJ-VS	San Bernardino Junction to Vista Substation	D.2.4.4
SBJ-SBS	San Bernardino Junction to San Bernardino Substation	D.2.4.5

Special status species include those listed as threatened or endangered under the State or federal Endangered Species Acts (ESA), species proposed or candidates for listing, species of special concern, and other species identified either by the USFWS, BLM, California Department of Fish & Game (CDFG), or Arizona Game and Fish Department (AGFD) as unique or rare, and which have the potential to occur in the project area. Other species identified in this document include those species identified as otherwise protected under California Native Plant Protection Act, California Desert Native Plant Act. Wildlife of Special Concern in Arizona (WSCA) and plants protected under the Arizona Department of Agriculture's (ADA) Arizona Native Plant Law. Plants identified by the California Native Plant Society (CNPS) as Lists 1B. BLM's policy is to "ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as threatened or endangered."

Arizona

Special Status Plant Species. Within the Arizona segments of the Proposed Project, the following special status plant species were considered:

- Two endangered plant species protected by the USFWS under the ESA. This includes (1) the Arizona agave (*Agave arizonica*), which is listed as endangered for Maricopa County but is also proposed for

delisting from the ESA and (2) the Arizona cliffrose (*Purshia subintegra*), which is listed as endangered for Maricopa County. Additional information on these species can be found in Appendix 7.

- Eleven sensitive plant species protected by the BLM. This includes (1) seven sensitive status plant species for the Phoenix Field Office: Arizona Sonoran rosewood (*Vauquelinia californica* ssp. *sonorensis*), California flannel bush (*Fremontodendron californicum*), giant sedge (*Carex spissa* var. *ultra*), Kofa Mountain barberry (*Berberis harrisoniana*), Hohokam agave (*Agave murpheyi*), Schott wire-lettuce (*Stephanomeria schottii*), Tumamoc globeberry (*Tumamoca macdougalii*), and (2) six sensitive status plant species for the Yuma Field Office: blue sand lily (*Triteleiopsis palmeri*), Kearney sumac (*Rhus kearneyi* ssp. k*earneyi*), Kofa Mountain barberry, Parish wild onion (*Allium parishii*), and sand food (*Pholisma sonorae*). Additional information on these species can be found in Appendix 7.
- All plant species (over 200) protected under the Arizona Native Plant Law (ANPL). A complete list of the plant species as protected by this law can be obtained from the ADA's website (http://www.azda.gov/ESD/protplantlst.htm).

Thorough analysis of the Proposed Project route including reconnaissance surveys revealed that only one species protected by either the USFWS and/or the BLM was found to have a Low potential for occurrence along the route for the Proposed Project. This species is the Kofa Mountain barberry. The remaining 12 species protected by the USFWS and BLM were found to be unlikely to occur along the Proposed Project route for one or both of the following reasons: (1) the Proposed Project route does not contain habitat conditions (i.e., soils, elevation, vegetation community) similar to those known to be necessary to support these species and (2) known geographic locations and/or records of these species were distant from Proposed Project route.

Although none of the plant species protected by the USFWS and/or BLM are expected to occur along the proposed route, there are many species protected by the ANPL that are known or are likely to be present. Although the ANPL does not prohibit the destruction of these species, the ADA must be notified prior to ground disturbing activities. Plant species that are protected under the ANPL that are known or are likely to be present within the proposed route include, but are not limited to, all cacti species (e.g., saguaro, chollas, prickly pears, hedgehogs, barrels), palo verdes, mesquites, ironwood, and agaves.

Special Status Wildlife Species. Within the Arizona segments of the Proposed Project, the following special status wildlife species were considered:

- Fourteen endangered, threatened, and/or candidate wildlife species as protected by the USFWS under the ESA for Maricopa and La Paz Counties. This includes seven bird species (seven listed for Maricopa County and five listed for La Paz County), two mammal species (two listed for Maricopa County and none listed for La Paz County), five fish species (four listed for Maricopa County and four listed for La Paz County), and no amphibian species, reptile species, or invertebrate species. A table with additional information on these species can be found in Appendix 7.
- Twenty-one sensitive wildlife species as protected by the BLM PFO and YFO. This includes one bird species (one listed for PFO and one listed for YFO), eight mammal species (seven listed for PFO and seven listed for YFO), five fish species (five listed for PFO and one listed for YFO), no amphibian species, four reptile species (three listed for PFO and three listed for YFO), and three invertebrate species (two listed for PFO and two listed for YFO). A table with additional information on these species can be found in Appendix 7.

- Thirty-six WSCA species as listed by the AGFD with records in Maricopa and/or La Paz Counties. This includes 18 bird species (16 listed for Maricopa County and 9 listed for La Paz County), five mammal species (five listed for Maricopa County and three listed for La Paz County), six fish species (six listed for Maricopa County and four listed for La Paz County), three amphibian species (three listed for Maricopa County and one listed for La Paz County), four reptile species (three listed for Maricopa County and one listed for La Paz County), and no invertebrate species. A table with additional information on these species can be found in Appendix 7.
- All bird species (over 800) protected under the MBTA. A complete list of the bird species as protected by this Act can be obtained from the USFWS website (http://www.fws.gov/migratorybirds/intrnltr/mbta/mbtandx.html).
- Desert bighorn sheep (*O. canadensis*) as regulated as a big game animal by the AGFD, CDFG, BLM, and Kofa NWR.

Table D.2-2 contains a list of special status wildlife species that are protected by USFWS, BLM, CDFG, and/or AGFD in the vicinity of the Proposed Project, and have a moderate or high potential to occur within the proposed route. The criteria used to determine the potential for a species to occur within the project area is described above in the introduction to this Section (D.2.1.1.3). The remaining species protected by the USFWS, BLM, CDFG, and/or AGFD were found to be unlikely to occur within the Proposed Project alignment for one or more of the following reasons: (1) the Proposed Project route does not contain habitat conditions, such as elevation, vegetation community, similar to those known to be necessary to support these species and (2) known geographic locations and/or records of these species were distant from the Proposed Project route. A table with information on these species can be found in Appendix 7.

Table D.2-2. Special Status Wildlife with a High/Moderate Potential to Occur in the Vicinity of the Proposed Project

Scientific Name Common Name	—— Status ——		Potential to Occur/ Transmission Line Segment	Habitat and Known Locations
INVERTEBRATES				
Oliarces clara Cheese–weed moth lacewing	BLM:	SS/YFO	Moderate	Populations occur on or near bajadas. Larvae are associated with creosote-bush roots, upon which they likely feed (AGFD, 2003)
FISH				
Xyrauchen texanus Razorback sucker	ESA: AGFD:	END/LPC & MC WSCA/ LPC & MC	High	Slow backwaters of reservoirs and medium and large streams and rivers of the Colorado River Basin at elevations of 181 to 5,000 feet in elevation. Spawns in shallow waters with sandy, gravelly or rocky bottoms (AGFD, 2001)
REPTILES				
Sauromalus obesus Common chuckwalla	BLM:	SS/PFO & YFO	High	Predominantly found near cliffs, boulders, or rocky slopes, where they use rocks as basking sites and rock crevices for shelter. They can be found in rocky desert, lava flows, hillsides, and outcrops. Creosote bush is associated with this species (AGFD, 2005)
***Gopherus agassizii* (Sonoran population)** Sonoran Desert tortoise	AGFD:	WSCA/ LPC & MC	Present	Inhabits almost any desert habitats with friable soils for burrow and nest construction (AGFD, 2001)
Uma scoparia Mojave fringe-toed lizard	AGFD:	WSCA/ LPC	High	Restricted to fine, windblown sands and dunes, flats, riverbanks and washes of very arid low growing vegetation (AGFD, 2003)
Heloderma suspectum cinctum **B**anded Gila monster	BLM:	SS /YFO	High	Most commonly found in undulating rocky foothills, bajadas, and canyons of the Sonoran Desert and extreme western edge of Mojave Desert. (AGFD, 2002)
Charina trivirgata gracia Desert rosy boa	BLM:	SS/PFO & YFO	High	Occurs in rocky areas in desert ranges, especially in canyon with permanent or intermittent streams in elevations from 700 to 5,640 feet (AGFD, 2003)
BIRDS				
Pelecanus occidentalis californicus California brown pelican	ESA:	END/LPC & MC	Moderate	Shore bird usually found near sandy beaches and lagoons. Nests along coastal islands with shrubby vegetation and small trees. In Arizona, this species can be found at large inland lakes (Monson and Phillips, 1981)
Aechmophorus clarkii Clark's grebe	AGFD:	WSCA/ LPC	High	Found along the Colorado River year round and inhabits marshes, lakes, and bays (AGFD, 2003)
Egretta thula Snowy egret	AGFD:	WSCA/MC	High	Found in marshes, lakes, ponds, lagoons, and shallow coastal habitats. Breeds and winters along the lower Colorado River, in west-central Maricopa County along the Gila River, and along the Hassayampa River (AGFD, 2002)
Ardea alba Great egret	AGFD:	WSCA/ LPC & MC	High	Found in marshes, swampy woods, tidal estuaries, lagoons, mangroves, streams, lakes, rivers, and ponds (AGFD, 2002)

Table D.2-2. Special Status Wildlife with a High/Moderate Potential to Occur in the Vicinity of the Proposed Project

Scientific Name Common Name	Status		Potential to Occur/ Transmission Line Segment	Habitat and Known Locations
Pandion haliaetus Osprey	AGFD:	WSCA/MC	Present	Nests along rivers, lakes, sea coasts, and other large bodies of water in forest habitats (AGFD, 2002)
Athene cunicularia hypugea Western burrowing owl	BLM:	SS/PFO & YFO	High	Occurs in open scrub, grassland, and agricultural habitat (AGFD, 2001)
MAMMALS				
Macrotus californicus California leaf-nosed bat	AGFD:	WSCA/ LPC & MC	High	Sonoran Desert scrub with roosts in mines, caves, or rock shelters in CA, NV, AGFD, and Mexico at 160 to 3,980 feet in elevation (AGFD, 2001)
Myotis velifer Cave myotis	BLM:	SS/PFO & YFO	High	Desert scrub with roosts in caves, tunnels, mineshafts, and under bridges in extreme southwestern U.S. and south to Mexico at 300 to 5,000 feet in elevation (AGFD, 2002)
Nyctinomops femorosaccus Pocketed free-tailed bat	BLM:	SS/PFO & YFO	Moderate	Desert scrub and pine-oak forests near high cliffs and rugged, rocky out-crops in southwestern U.S. and central Mexico from 190 to 7,520 feet in elevation; roost site include rock crevices and human built structures (AGFD 2003)
Nyctinomops macrotis Big free-tailed bat	BLM:	SS/PFO & YFO	Moderate	Rugged, rocky county, and riparian areas throughout most of Arizona from 1,810 to 8,475 feet in elevation (AGFD, 2003i

Federal Designations (Federal Endangered Species Act, USFWS)

END: **Federally listed, endangered**
THR: **Federally listed, threatened**
C: **Federal candidate species**
PD: **Federally proposed for delisting**
PEND**: Federally proposed endangered**

State Designations:

WSCA: Wildlife of Special Concern in Arizona

Other Designations

SS: Bureau of Land Management sensitive species

California

Special Status Plant Communities. The literature review determined that 12 sensitive vegetation communities are known to occur in the vicinity of the Proposed Project. The field survey determined that all of these sensitive vegetation communities occur within or adjacent to the project survey area. The vegetation communities and the transmission line segments that would traverse each community are listed in Table D.2-3. General descriptions of these communities are provided in Appendix 7, and more detailed discussion of the locations of these communities within each segment of the Proposed Project can be found in Sections D.2.2.1 through D.2.3.5.

Special Status Plant Species. The CNDDB and CNPS literature search identified 150 listed or sensitive plant species that are known to occur within the project vicinity and that have potential to occur within the proposed ROW. These species and descriptions of each species' status, habitat requirements, potential for occurrence, and project segment(s) where each either occur or potentially occur are listed in Appendix 7.

Each of these species identified in the search was assessed for their potential to occur within the project area based on the criteria described above within the introduction to Section D.2.1.1.3. Table D.2-4 lists the plant species that have been documented in the project area and those that have either a high or moderate potential to occur. The plant species that are unlikely to occur or that have a low potential to occur are described in Appendix 7.

Table D.2-3. Sensitive Vegetation Community Occurrence within Proposed Project

Sensitive Vegetation Community	Occurs in Survey Area	Transmission Line Segment and Approximate MP (if found in survey area)
Coastal sage scrub	Yes	BN-BM SBJ-VS SBJ-SBS
Desert Dunes and Desert Sand Fields	Yes	MS-CCRA CCRA-DEV DEV-EBB
Desert Fan Palm Oasis Woodland	Yes	MS-CCRA CCRA-DEV DEV-EBB
Mesquite Bosque/Hummocks	Yes	MS-CCRA CCRA-DEV DEV-EBB
Riversidean Alluvial Fan Sage Scrub	Yes	BN-BM CL-STC
Riversidean Sage Scrub	Yes	BN-BM CL-STC
Southern Sycamore Alder Riparian Woodland	Yes	CL-STC SBJ-VS SBJ-SBS
Southern Coast Live Oak Riparian Forest	Yes	DEV-EBB CL-STC SBJ-VS
Southern Arroyo Willow Riparian Forest	Yes	DEV-EBB
Southern Cottonwood Willow Riparian Forest	Yes	COR-MS CCRA-DEV DEV-EBB BN-BM CL-STC
Southern Riparian Scrub	Yes	CL-STC
Southern Sycamore Alder Riparian Woodland	Yes	CL-STC
Southern Willow Scrub	Yes	CL-STC SBJ-VS

Source: CNDDB and CNPS database search of Aztec Mines, Beaumont, Blythe, Blythe NE, Cabazon, Catclaw Flat, Cathedral City, Corn Spring, Cottonwood Basin, Cottonwood Spring, Desert Center, Desert Hot Springs, East Deception Canyon, East of Aztec Mines, East of Red Canyon, East of Victory Pass, El Casco, Ford Dry Lake, Forest Falls, Hayfield, Hayfield Spring, Hopkins Well, Indio, La Quinta, McCoy Peak, McCoy Spring, McCoy Wash, Morongo Valley, Mortmar, Orocopia Canyon, Palm Springs, Palo Verde, Pilot Mountain, Red Canyon, Red Cloud Canyon, Redlands, Ripley, Riverside East, Rockhouse Canyon, Roosevelt Mine, San Bernardino South, San Gorgonio Mountain, Seven Palms Valley, Sidewinder Well, Sunnymead, Thermal Canyon, Victory Pass, West Berdoo Canyon, White Water, Yucaipa, Canyon 7.5 minute quads, 2005.

Location information on some sensitive species may be of questionable accuracy or unavailable; therefore, for survey purposes, environmental factors associated with species occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence.

Table D.2-4. Sensitive Plants Species with High/Moderate Potential to Occur in California

Scientific Name Common Name	— Status —	Flowering Period	Habitat	Potential to Occur: Transmission Line Segment
Abronia villosa var. *aurita* chaparral sand-verbena	Fed: None CA: None CNPS: 1B R-E-D: 2-3-2 BLM: None	Jan–Sep	Chaparral; Coastal Scrub; Desert dunes (sandy)	High: DEV-EBB Moderate: CCRA-DEV; BN-BM; CL-STC; SBJ-VS; SBJ-SBS
Acleisanthes longiflora Angel trumpets	Fed: None CA: None CNPS: 2 R-E-D: 3-1-1 BLM: None	May	Sonoran Desert scrub; generally on limestone	Moderate: COR-MS; MS-CCRA; CCRA-DEV
Allium marvinii Yucaipa onion	Fed: None CA: None CNPS: 1B R-E-D: 3-3-3 BLM: None	Apr–May	(WR) Chaparral (in openings on clay soils)	High: DEV-EBB; BN-BM; CL-STC
Allium munzii Munz's onion	Fed: END CA: THR CNPS: 1B R-E-D: 3-3-3 BLM: None	Mar–May	(WR) Chaparral; Cismontane woodland; Coastal scrub; Pinyon and juniper woodland; Valley and foothill grassland (mesic, clay)	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS
Ambrosia pumila San Diego ambrosia	Fed: END CA: None CNPS: 1B R-E-D: 3-3-2 BLM: SS	Apr–Oct	(WR) Chaparral; Coastal scrub; Valley and foothill grassland; Vernal pools/ often in disturbed areas	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS
Ammoselinum giganteum desert sand-parsley	Fed: None CA: None CNPS: 2 R-E-D: 3-1-1 BLM: None	Mar–Apr	Sonoran Desert Scrub	High: MS-CCRA Moderate: COR-MS; CCRA-DEV
Astragalus insularis var. *harwoodii* Harwood's milkvetch	Fed: None CA: None CNPS: 1B R-E-D: 2-2-2 BLM: None	Jan–May	Desert dunes; Mojavean desert scrub (sandy or gravelly – mostly in creosote bush scrub)	High: COR-MS; MS-CCRA
Astragalus lentiginosus var. *coachellae* Coachella Valley milkvetch	Fed: END CA: None CNPS: 1B R-E-D: 2-2-3 BLM: None	Feb–May	(CV) Sonoran desert scrub (sandy flats, washes, outwash fans, sometimes on dunes)	Present: CCRA-DEV Moderate: DEV-EBB
Astragalus pachypus var. *jaegeri* Jaeger's milkvetch	Fed: None CA: None CNPS: 1B R-E-D: 3-3-3 BLM: None	Dec–Apr	(WR) Chaparral; Cismontane woodland; Coastal scrub; Valley and foothill grassland	Present: CL-STC; SBJ-VS; SBJ-SBS High: BN-BM; DEV-EBB
Atriplex coronata var. *notatior* San Jacinto Valley crownscale	Fed: END CA: None CNPS: 1B R-E-D: 3-3-3 BLM: None	Apr–Aug	(WR) Playas; Valley and foothill grassland (mesic); Vernal pools (alkaline)	Moderate: BN-BM; CL-STC

Table D.2-4. Sensitive Plants Species with High/Moderate Potential to Occur in California

Scientific Name Common Name	— Status —	Flowering Period	Habitat	Potential to Occur: Transmission Line Segment
Atriplex parishii Parish's brittlescale	Fed: None CA: None CNPS: 1B R-E-D: 3-3-2 BLM: None	Jun–Oct	(WR) Chenopod scrub; Playas; Vernal pools	Moderate: CCRA-DEV; DEV-EBB
Ayenia compacta ayenia	Fed: None CA: None CNPS: 2 R-E-D: 2-1-1 BLM: None	Mar–Apr	Mojavean desert scrub; Sonoran desert scrub	High: MS-CCRA
Berberis nevinii Nevin's barberry	Fed: END CA: END CNPS: 1B R-E-D: 3-3-3 BLM: None	Mar–Apr	(WR) Chaparral; Cismontane woodland; Coastal scrub; Riparian scrub	Present: SBJ-VS; SBJ-SBS; CL-STC
Calochortus plummerae Plummer's Mariposa lily	Fed: None CA: None CNPS: 1B R-E-D: 2-2-3 BLM: None	May–Jul	(WR) Chaparral; Cismontane woodland; Coastal scrub; Lower montane coniferous forest; Valley and foothill grassland (granitic, rocky)	Present: CL-STC High: BN-BM
Castela emoryi crucifixion thorn	Fed: None CA: None CNPS: 2 R-E-D: 2-1-1 BLM: None	Apr–Jul	Mojavean desert scrub; Playas; Sonoran desert scrub (gravelly)	High: MS-CCRA
Centromadia pungens var. *laevis* smooth tarplant	Fed: None CA: None CNPS: 1B R-E-D: 2-3-3 BLM: None	Apr–Sep	(WR) Chenopod scrub; Meadows and seeps; Playas; Riparian woodland; Valley and foothill grassland (alkaline)	Moderate: CL-STC; BN-BM
Chamaesyce abramsiana Abram's spurge	Fed: None CA: None CNPS: 2 R-E-D: 3-2-1 BLM: None	Sep–Nov	Mojavean desert scrub; Sonoran desert scrub (sandy)	Moderate: MS-CCRA
Chamaesyce arizonica Arizona spurge	Fed: None CA: None CNPS: 2 R-E-D: 2-1-1 BLM: None	Mar–Apr	Sonoran desert scrub (sandy)	High: CCRA-DEV
Chamaesyce platysperma flat-seeded spurge/ sandmat	Fed: None CA: None CNPS: 1B R-E-D: 3-2-2 BLM: SS	Feb–Sep	(CV*) Desert dunes; Sonoran desert scrub (sandy)	High: CCRA-DEV
Chorizanthe parryi var. *parryi* Parry's spineflower	Fed: None CA: None CNPS: 3 R-E-D: ?-2-3 BLM: None	Apr–Jun	(WR) Chaparral; Coastal scrub (sandy or rocky, openings)	High: DEV-EBB; BN-BM; CL-STC; SBJ-VS; SBJ-SBS
Chorizanthe polygonoides var. *longispina* long-spined spineflower	Fed: None CA: None CNPS: 1B R-E-D: 2-2-3 BLM: None	Apr–Jun	(WR) Chaparral; Coastal scrub; Meadows and seeps; Valley and foothill grassland/often clay	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS

Table D.2-4. Sensitive Plants Species with High/Moderate Potential to Occur in California

Scientific Name Common Name	— Status —	Flowering Period	Habitat	Potential to Occur: Transmission Line Segment
Chorizanthe xanti var. *leucotheca* white-bracted spineflower	Fed: None CA: None CNPS: 1B R-E-D: 2-2-3 BLM: None	Apr–Jun	Mojavean desert scrub; Pinyon and juniper woodland	Present: DEV-EBB High: BN-BM
Colubrina californica Las Animas colubrina	Fed: None CA: None CNPS: 2 R-E-D: 2-1-1 BLM: None	Apr–Jun	Mojavean desert scrub; Sonoran desert scrub	Moderate: COR-MS; MS-CCRA
Deinandra mohavensis Mojave tarplant	Fed: SC CA: END 1B CNPS: 2-1-3 R-E-D: None BLM:	Jul–Oct	(WR) Chaparral; Coastal scrub; Riparian scrub	High: BN-BM; DEV-EBB
Ditaxis claryana glandular ditaxis	Fed: None CA: None CNPS: 2 R-E-D: 3-2-1 BLM: None	Oct–Mar	(CV*) Mojavean desert scrub; Sonoran desert scrub	High: MS-CCRA
Ditaxis serrata var. californica California ditaxis	Fed: None CA: None CNPS: 3 R-E-D: ?-2-3 BLM: None	Mar–Dec	(CV*) Sonoran desert scrub	High: MS-CCRA; CCRA-DEV
Dodecahema leptoceras slender-horned spineflower	Fed: END CA: END CNPS: 1B R-E-D: 3-3-3 BLM: None	Apr–Jun	(WR) Chaparral; Cismontane woodland; Coastal scrub (sandy)	Present: CL-STC; SBJ-VS; SBJ-SBS High: BN-BM
Dudleya multicaulis many-stemmed dudleya	Fed: None CA: None CNPS: 1B R-E-D: 1-2-3 BLM: SS	Apr–Jul	(WR) Chaparral; Coastal scrub; Valley and foothill grassland/often clay	Moderate: CL-STC; SBJ-VS
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woollystar	Fed: END CA: END CNPS: 1B R-E-D: 3-3-3 BLM: None	Jun–Sep	(WR) Chaparral; Coastal scrub; alluvial fans/sandy or gravelly	High: SBJ-SBS Moderate: CL-STC; SBJ-VS
Erodium macrophyllum round-leaved filaree	Fed: None CA: None CNPS: 2 R-E-D: 2-3-1 BLM: None	Mar–May	(WR) Cismontane woodland; Valley and foothill grassland/ clay	Moderate: CL-STC; SBJ-VS; SBJ-SBS
Escobaria alversonii foxtail cactus	Fed: SC CA: None CNPS: 4 R-E-D: 1-1-3 BLM: None	Apr–Jun	Mojavean desert scrub; Sonoran desert scrub/ sandy or rocky, usually granitic	Present: MS-CCRA High: CCRA –DEV; COR-MS
Euphorbia misera cliff spurge	Fed: None CA: None CNPS: 2 R-E-D: 2-2-1 BLM: None	Dec–Apr	(CV*) Coastal bluff scrub; Coastal scrub; Mojavean desert scrub (rocky)	High: CCRA-DEV; DEV-EBB

Table D.2-4. Sensitive Plants Species with High/Moderate Potential to Occur in California

Scientific Name Common Name	— Status —	Flowering Period	Habitat	Potential to Occur: Transmission Line Segment
Galium californicum ssp. *primum* California bedstraw	Fed: None CA: None CNPS: 1B R-E-D: 3-2-3 BLM: SS	May–Jul	(WR) Chaparral; Lower montane coniferous forest (granitic, sandy)	High: CL-STC; SBJ-VS; SBJ-SBS
Gilia maculatus Little San Bernardino Mtns. gilia	Fed: None CA: None CNPS: 1B R-E-D: 3-2-3 BLM: SS	Mar–May	(CV) Desert dunes; Joshua tree "woodland"; Mojavean desert scrub; Sonoran desert scrub (sandy)	High: CCRA-DEV; DEV-EBB
Juglans californica Southern California black walnut	Fed: None CA: None CNPS: 4 R-E-D: 1-2-3 BLM: None	Mar–May	(WR) Chaparral; Cismontane woodland; Coastal scrub (alluvial)	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS; SBJ-SBS
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	Fed: None CA: None CNPS: 1B R-E-D: 2-2-2 BLM: None	Jan–Jul	Chaparral; Coastal scrub	Moderate: DEV-EBB; BN-BM; CL and STC; SBJ-VS
Lilium humboldtii ssp. *ocellatum* ocellated Humboldt lily	Fed: None CA: None CNPS: 4 R-E-D: 1-2-3 BLM: None	Mar–Jul	(WR) Chaparral; Cismontane woodland; Coastal scrub; Lower montane coniferous forest; Riparian woodland/ openings	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS; SBJ-SBS
Lycium parishii Parish's desert-thorn	Fed: None CA: None CNPS: 2 R-E-D: 2-1-1 BLM: None	Mar–Apr	Coastal scrub; Sonoran desert scrub	High: SBJ-VS; SBJ-SBS
Matelea parvifolia spearleaf	Fed: None CA: None CNPS: 2 R-E-D: 3-1-1 BLM: None	Mar–May	Mojavean desert scrub; Sonoran desert scrub (rocky)	Moderate: MS-CCRA
Mentzelia tridentata creamy blazing star	Fed: None CA: None CNPS: 1B R-E-D: 2-1-3 BLM: None	Mar–May	Mojavean desert scrub	High: CCRA-DEV
Monardella macrantha ssp. *hallii* Hall's monardella	Fed: None CA: None CNPS: 1B R-E-D: 2-1-3 BLM: None	Jun–Aug	Broadleafed upland forest; Chaparral; Cismontane woodland; Lower montane coniferous forest; Valley and foothill grassland	High: CL-STC Moderate: BN-BM
Muhlenbergia californica California muhly	Fed: None CA: None CNPS: 4 R-E-D: 1-1-3 BLM: None	Jun–Sep	(WR) Chaparral; Coastal scrub; Lower montane coniferous forest; Meadows and seeps (mesic, seeps, and stream banks)	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS; SBJ-SBS
Myosurus minimus ssp. *apus* little mousetail	Fed: SC CA: None CNPS: 3 R-E-D: 2-1-3 BLM: None	Mar–Jun	(WR) Valley and foothill grassland; Vernal pools	Moderate: CL-STC; SBJ-VS; SBJ-SBS

Table D.2-4. Sensitive Plants Species with High/Moderate Potential to Occur in California

Scientific Name Common Name	— Status —	Flowering Period	Habitat	Potential to Occur: Transmission Line Segment
Nemacaulis denudata var. *gracilis* slender woolly-heads	Fed: None CA: None CNPS: 2 R-E-D: 2-2-1 BLM: None	Mar–May	Coastal dunes; Desert dunes; Sonoran desert scrub	High: CCRA-DEV; DEV-EBB
Opuntia wigginsii Wiggins' cholla	Fed: None CA: None CNPS: 3 R-E-D: 3-1-2 BLM: None	Mar	Sonoran desert scrub (sandy)	High: COR-MS
Polygala cornuta var. fishiae Fish's milkwort	Fed: None CA: None CNPS: 4 R-E-D: 1-1-2 BLM: None	May–Aug	(WR) Chaparral; Cismontane woodland; Riparian woodland	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS
Quercus engelmannii Engelmann oak	Fed: None CA: None CNPS: 4 R-E-D: 1-2-2 BLM: None	Mar–Jun	(WR) Chaparral; Cismontane woodland; Riparian woodland; Valley and foothill grassland	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS
Ribes divaricatum var. parishii Parish's gooseberry	Fed: None CA: None CNPS: 1B R-E-D: 3-3-3 BLM: None	Feb–Apr	Riparian woodland	Moderate: CL-STC; SBJ-VS; SBJ-SBS
Romneya coulteri Coulter's matilija poppy	Fed: None CA: None CNPS: 4 R-E-D: 1-2-3 BLM: None	Mar–Jul	(WR) Chaparral; Coastal scrub (often in burns)	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS
Rorippa gambelii Gambel's water cress	Fed: END CA: THR CNPS: 1B R-E-D: 3-3-2 BLM: None	Apr–Sep	Marshes and swamps (freshwater or brackish)	Moderate: SBJ-VS; SBJ-SBS
Saltugilia latimeri Latimer's woodland gilia	Fed: None CA: None CNPS: 1B R-E-D: 2-2-3 BLM: None	Mar–Jun	Chaparral; Mojavean desert scrub (rocky or sandy)	Moderate: DEV-EBB; CCRA-DEV; MS-CCRA
Salvia greatae Orocopia sage	Fed: None CA: None CNPS: 1B R-E-D: 2-1-3 BLM: None	Mar–Apr	(CV) Mojavean desert scrub; Sonoran desert scrub	High: MS-CCRA
Satureja chandleri San Miguel savory	Fed: None CA: None CNPS: 1B R-E-D: 2-2-2 BLM: None	Mar–Jul	(WR) Chaparral; Cismontane woodland; Coastal scrub; Riparian woodland; Valley and foothill grassland/rocky, gabbroic or metavolcanic	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS
Selaginella eremophila desert spike-moss	Fed: None CA: None CNPS: 2 R-E-D: 3-2-1 BLM: None	May–Jul	Sonoran desert scrub (gravelly or rocky)	High: MS-CCRA

Table D.2-4. Sensitive Plants Species with High/Moderate Potential to Occur in California

Scientific Name Common Name	— Status —	Flowering Period	Habitat	Potential to Occur: Transmission Line Segment
Senna covesii Coves's cassia	Fed: None CA: None CNPS: 2 R-E-D: 2-2-1 BLM: None	Mar–Jun	Sonoran desert scrub (sandy)	High: MS-CCRA
Stemodia durantifolia purple stemodia	Fed: None CA: None CNPS: 2 R-E-D: 3-3-1 BLM: None	Jan–Dec	Sonoran desert scrub; (often mesic, sandy)	Moderate: CCRA-DEV; DEV-EBB
Symphyotrichum defoliatum San Bernardino aster	Fed: None CA: None CNPS: 1B R-E-D: 2-2-3 BLM: None	Jul–Nov	Meadows and seeps; Marshes and swamps; Coastal scrub; Cismontane woodland; Lower montane coniferous forest; Valley and foothill grassland (vernally mesic) / near ditches, streams, springs	Moderate: DEV-EBB BN-BM; CL-STC
Thelypteris puberula var. sonorensis Sonoran maiden fern	Fed: None CA: None CNPS: 2 R-E-D: 2-2-1 BLM: None	Jan–Sep	Meadows and seeps (seeps and streams)	Moderate: DEV-EBB
Xylorhiza cognata Mecca-aster	Fed: None CA: None CNPS: 1B R-E-D: 2-2-3 BLM: None	Jan–Jun	(CV) Sonoran desert scrub	Moderate: MS-CCRA; CCRA-DEV

Federal Designations (Federal Endangered Species Act, USFWS):
END federally listed, endangered
THR federally listed, threatened
FC federal candidate for listing
SC federal species of concern

State Designations (California Endangered Species Act, CDFG):
END State listed, endangered
THR State listed, threatened
RARE State listed rare

California Native Plant Society (CNPS) Designations: (Note: According to CNPS [Skinner and Pavlik, 1994], plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions. See text.)

1A: Plants presumed extinct in California
1B: Plants rare and endangered in California and throughout their range.
2: Plants rare, threatened or endangered in California but more commons elsewhere in their range.
3: Plants about which we need more information; a review list.
4: Plants of limited distribution; a watch list.

CNPS R-E-D Code:

Rarity:
1: Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.
2: Occurrence confined to several populations or one extended population.
3: Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

Endangerment:
1: Not endangered.
2: Endangered in a portion of its range.
3: Endangered throughout its range.

Distribution:
1: More or less widespread outside California.
2: Rare outside California.
3: Endemic to California (i.e., does not occur outside California).

Bureau of Land Management (BLM):
SS: Sensitive species
(CV): Covered in the Coachella Valley Multiple Species Habitat Conservation Plan
(CV*): Not covered, but was considered in the Coachella Valley Multiple Species Habitat Conservation Plan
(WR): Covered in the Western Riverside Multiple Species Habitat Conservation Plan

Source: California Natural Diversity Data Base (CNDDB), California Native Plant Society Electronic Inventory (CNPSEI) 7.5 minute quadrangles.

Listed Plant Species. The results of the literature review indicated that 39 plant species that are listed as rare (California), threatened, and/or endangered, or are considered candidates for listing potentially occur in the region around the project area. Of these 39 species, 14 are either known to occur or have a high, moderate, or low potential to occur, and are discussed in more detail in Appendix 7. The remaining 25 species are unlikely to occur and are discussed in Appendix 7.

One listed species, the Coachella Valley milkvetch, is known to occur in the proposed ROW. Three species have a high potential to occur, and five species have a moderate potential to occur. The species are listed in Table D.2-4. Five species have a low potential to occur.

Sensitive Plant Species. Twenty-three sensitive species have a high potential to occur and another 23 species have a moderate potential to occur. All of these species are listed in Table D.2-4 and are discussed in more detail Appendix 7. The 65 sensitive plant species that are unlikely to occur, or that have a low potential to occur, are discussed in Appendix 7.

Special Status Wildlife Species. The results of the CNDDB search, the review of previous biological survey documents that include the project area, and the reconnaissance survey of the project area identified 127 wildlife species that are known to occur in the project vicinity or that have a potential to occur within the ROW. These species and descriptions of each species' status, habitat requirements, potential for occurrence, and project segment(s) where each either occur or potentially occur are listed in Appendix 7.

Each of these species identified in the search was assessed for their potential to occur within the project area based on the criteria described above in the introduction to Section D.2.1.1.3. Table D.2-5 lists the wildlife species that have been documented in the project area and those that have either a high or moderate potential to occur. The wildlife species that are unlikely to occur or that have a low potential to occur are described in Appendix 7

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat
INVERTEBRATES			
Macrobaenetes valgum Coachella Valley giant sand-treader cricket	Fed: none CA: none BLM: none FS: none	High: CCRA-DEV; DEV-EBB	(CV) Found only in the Coachella Valley in active sand dunes and ephemeral sand fields.
Stenopelmatus cahuilaensis Coachella Valley Jerusalem cricket	Fed: none CA: none BLM: none FS: none	High: CCRA-DEV; DEV-EBB	(CV) Associated with sand dune and creosote bush scrub habitats in the Coachella Valley.
FISH			
CATOSTOMIDAE (suckers)			
Xyrauchen texanus razorback sucker	Fed: END CA: END/FP BLM: none FS: none	High: COR-MS	Found in the Colorado River. Spawns in shallow waters with sandy, gravelly or rocky bottoms.
AMPHIBIANS			
SALAMANDRIDAE (newts)			
Taricha torosa torosa coast range newt	Fed: none CA: CSC BLM: none FS: none	Moderate: DEV-EBB; BM-BN	(WR) Inhabits drier climates in southern California at elevations ranging from sea level to 6,000 amsl. Requires nearby water source for reproduction.

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat
SCAPHIOPODIDAE (spadefoot toads)			
Scaphiopus couchii Couch's spadefoot toad	Fed: none CA: CSC BLM: SS FS: none	High: COR-MS Moderate: CCRA-DEV; DEV-EBB	Found in temporary desert rainpools with subterranean refuge sites in appropriate soil types nearby.
Spea hammondi western spadefoot toad	Fed: none CA: CSC BLM: SS FS: none	Moderate: BN-BM; CL-STC; SBJ-VS	(WR) Occurs in grassland, scrub, chaparral with nearby vernal pools or other seasonal waters for breeding.
BUFONIDAE (true toads)			
Bufo alvarius Colorado River toad	Fed: none CA: CSC BLM: none FS: none	High: COR-MS	Found along the Colorado River at elevations ranging from sea level to 1615 meters.
Bufo californicus arroyo toad	Fed: END CA: CSC BLM: none FS: none	High: DEV-EBB	(WR) Occurs in semi-arid regions near washes or intermittent streams.
RANIDAE (frogs)			
Rana muscosa mountain yellow-legged frog	Fed: END CA: CSC BLM: none FS: S	Present: BN-BM High: DEV-EBB	(WR) Found near permanent sources of water in the San Gabriel, San Jacinto and San Bernardino Mountains.
REPTILES			
TESTUDINIDAE (land tortoises)			
Gopherus agassizii desert tortoise	Fed: THR CA: THR BLM: none FS: none	Present: MS-CCRA; CCRA-DEV; DEV-EBB Moderate: COR-MS	(CV) Inhabits suitable desert habitats with friable soils for burrow and nest construction.
PHRYNOSOMATIDAE (fringe-toed lizards, horned lizards and relatives)			
Phrynosoma coronatum blainvillei San Diego horned lizard	Fed: None CA: CSC BLM: none FS: S	Present: DEV-EBB, BN-BM High: CL-STC; SBJ-VS	(WR) Occurs in open scrub and other open areas with ample native ant prey base.
Phrynosoma mcallii flat-tailed horned lizard	Fed: none CA: CSC BLM: SS FS: S	Moderate: COR-MS; MS-CCRA; CCRA-DEV; DEV-EBB	(CV) Occurs in desert washes and desert flats in Riverside, San Diego and Imperial Counties.
Uma inornata Coachella Valley fringe-toed lizard	Fed: THR CA: END BLM: none FS: none	High: CCRA-DEV; DEV-EBB	(CV) Inhabits sand dunes in the Coachella Valley of eastern Riverside County.
Uma notata Colorado Desert fringe-toed lizard	Fed: none CA: CSC BLM: SS FS: none	Present: MS-CCRA Moderate: COR-MS	Inhabits sand dunes in the Colorado Desert in elevations below sea level to 180 meters (600') amsl.
Uma scoparia Mojave fringe-toed lizard	Fed: none CA: CSC BLM: SS FS: none	Present: MS-CCRA; Moderate: COR-MS; MS-CCRA; CCRA-DEV	Inhabits sand dunes in the Mojave Desert at elevations below sea level to 180 meters (600') amsl.

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat
TEIIDAE (whiptails & relatives)			
Aspidoscelis hyperythra beldingi Belding's orange-throated whiptail	Fed: none CA: CSC BLM: none FS: none	Moderate: DEV-EBB; BN-BM; CL-STC; SBJ-VS	(WR) Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks.
ANNIELLIDAE (legless lizards)			
Anniella pulchra pulchra silvery legless lizard	Fed: none CA: CSC BLM: none FS: S	Moderate: DEV-EBB, BN-BM; CL-STC; SBJ-VS	Found in moist, sandy or loamy soils with sparse vegetation.
HELODERMATIDAE (venomous lizards)			
Heloderma suspectum cinctum banded Gila monster	Fed: none CA: CSC BLM: SS FS: none	Moderate: MS-CCRA	Inhabits grassy and shrubby desert areas and occasionally found on low mountain slopes and nearby plains.
BOIDAE (boas)			
Charina umbratica southern rubber boa	Fed: none CA: THR BLM: none FS: S	Moderate: DEV-EBB, BN-BM; CL-STC	(WR) Occurs in a variety of montane forest habitats within the vicinity of streams or wet meadows.
Charina trivirgata rosy boa	Fed: none CA: none BLM: SS FS: S	High: CCRA-DEV, DEV-EBB Moderate: COR-MS; MS-CCRA	Occurs in desert and chaparral habitats with moderate to dense vegetation.
NATRICIDAE (live-bearing snakes)			
Thamnophis hammondi two-striped garter snake	Fed: none CA: CSC BLM: SS FS: S	Moderate: DEV-EBB	Occurs in or near permanent water sources in elevations up to 2,134 meters (7,000') amsl.
VIPERIIDAE(vipers)			
Crotalus ruber ruber northern red-diamond rattlesnake	Fed: none CA: CSC BLM: none FS: none	Present: DEV-EBB, BN-BM High: CCRA-DEV Moderate: CL-STC, SBJ-VS	(WR) Occurs in chaparral, woodland, grassland, and desert areas in rocky areas with dense vegetation. Requires rodent burrows and/or cracks in rocks for cover.
BIRDS			
THRESKIORNITHIDAE (ibises and spoonbills)			
Plegadis chihi white-faced ibis (rookery site)	Fed: none CA: CSC BLM: none FS: none	Moderate: COR-MS; CL-STC; SBJ-SBS	(WR) Found in shallow freshwater marshes with dense tule thickets for nesting.
ACCIPITRIDAE (hawks, kites, harriers and eagles)			
Accipiter cooperii Cooper's hawk (nesting)	Fed: none CA: CSC BLM: none FS: none	High: DEV-EBB; CL-STC; SBJ-SBS	(WR) Nests in woodlands, typically in riparian areas and oaks.
Aquila chrysaetos golden eagle (nesting and wintering)	Fed: none CA: CSC/FP BLM: SS FS: none	High: CCRA-DEV; DEV-EBB; BN-BM; CL-STC	(WR) Occurs in rolling foothill mountain areas; nests in large trees in open areas or cliff-walled canyons.
Buteo regalis Ferruginous hawk (wintering)	Fed: none CA: CSC BLM: SS FS: none	High: COR-MS; MS-CCRA; CCRA-DEV; DEV-EBB; BN-BM; CL-STC	(WR) Found in prairie, grassland, forest and desert habitats; nests along streams or on steep slopes.

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat
Buteo swainsonii Swainson's havk (nesting & migrant)	Fed: FSC CA: THR BLM: SS FS: S	Moderate: HAR-COR; COR-MS; DEV-EBB; BN-BM	(WR)Found in grassland, savannah, and desert habitats; nest in large mesquite shrubs in the Mojave Desert & Arizona, riparian trees near the Colo. River
Elanus leucurus white-tailed kite (nesting)	Fed: none CA: FP BLM: none FS: none	Moderate: BN-BM; CL-STC	(WR) Nests in trees near marshes or other sources of water in grassland, cropland and woodland-hardwood habitats.
Falco mexicanus prairie falcon	Fed: none CA: CSC BLM: none FS: none	Present: MS-CCRA; CCRA-DEV; DEV-EBB; BN-BM Moderate: COR-MS	(WR) Nests in open, dry habitats on cliffs. Often found far away from permanent water sources.
Falco peregrinus peregrine falcon	Fed: DL CA: END/FP BLM: none FS: S	Moderate: COR-MS	(WR) Found in open habitats ranging from desert communities to forest habitats.
RALLIDAE (rails, coots and gallinules)			
Laterallus jamaicensis coturniculus California black rail	Fed: none CA: THR/FP BLM: none FS: none	High: COR-MS	(CV) Occurs in tidal salt marsh and fresh-water and brackish marshes at low elevations.
Rallus longirostris yumanensis Yuma clapper rail	Fed: END CA: THR/FP BLM: none FS: none	High: COR-MS	(CV) Requires dense growth of pickle weed or cord grass for nesting or escape cover.
CHARADRIIDAE (plovers and relatives)			
Charadrius montanus mountain plover (wintering)	Fed: none CA: CSC BLM: none FS: none	High: BN-BM; SBJ-SBS Moderate: COR-MS; MS-CCRA; CCRA-DEV; DEV-EBB; CL-STC	(WR) Found in desert, grassland and cropland habitats.
LARIDAE (gulls and terns)			
CUCULIDAE (cuckoos and relatives)			
Coccyzus americanus occidentalis western yellow-billed cuckoo	Fed: FC CA: END BLM: None FS: S	High: COR-MS Moderate: SBJ-SBS	(WR) Nests in riparian areas of larger river systems.
STRIGIDAE (owls)			
Asio otus long-eared owl (nesting)	Fed: none CA: CSC BLM: none FS: none	Moderate: DEV-EBB; CL-STC	Nests in riparian bottomlands and live oaks adjacent to streams.
Athene cunicularia burrowing owl (burrow sites)	Fed: none CA: CSC BLM: SS FS: none	Present: COR-MS; MS-CCRA; CCRA-DEV; DEV-EBB High: BN-BM	(CV, WR) Occurs in open scrub, grassland, and agricultural habitat.
Micrathene whitneyi elf owl	Fed: none CA: END BLM: none FS: none	High: COR-MS	Nests in California along the Colorado River in cottonwood-willow and mesquite riparian zones.
PICIDAE (woodpeckers)			
Colaptes chrysoides gilded flicker	Fed: none CA: END BLM: none FS: none	Moderate: COR-MS	Found in deserts, cottonwood and willow riparian areas near the Colorado River.

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat
Melanerpes uropygialis Gila woodpecker	Fed: none CA: END BLM: none FS: none	High: COR-MS	Found in cottonwood trees and other desert riparian trees. Nests in riparian trees or saguaro cactus.
TYRANNIDAE (tyrant flycatchers)			
Empidonax traillii willow flycatcher	Fed: none CA: END BLM: none FS: S	Moderate: COR-MS; CL-STC	Associated with willow-covered islands and riparian habitats at elevations up to 2,400 meters (7,875 feet) amsl.
Empidonax traillii extimus southwestern willow flycatcher	Fed: END CA: END BLM: none FS: none	High: CL-STC Moderate: COR-MS; DEV-EBB	(CV, WR) Occurs in riparian woodlands in southern California.
Myiarchus tyrannulus brown-crested flycatcher (nesting)	Fed: none CA: CSC BLM: none FS: none	High: DEV-EBB Moderate: COR-MS	Nests in desert riparian habitats along the Colorado River.
Pyrocephalus rubinus vermillion flycatcher (nesting)	Fed: none CA: CSC BLM: none FS: none	High: COR-MS; DEV-EBB Moderate: MS-CCRA	Nests in desert riparian habitats near irrigation fields and ditches.
LANIIDAE (shrikes)			
Lanius ludovicianus loggerhead shrike (nesting)	Fed: none CA: CSC BLM: none FS: none	Present: COR-MS; MS-CCRA High: CCRA-DEV; DEV-EBB; BN-BM; CL-STC; SBJ-SBS	(WR) Inhabits large, open areas conducive to hunting. Nests in dense brush and shrubs.
VIREONIDAE (vireos)			
Vireo bellii pusillus least Bell's vireo	Fed: END CA: END BLM: none FS: none	High: COR-MS; DEV-EBB; BN-BM; CL-STC	(CV, WR) Nests in low riparian habitat in the vicinity of water or dry river bottoms below 609 meters (2,000') amsl.
ALAUDIDAE (larks)			
Eremophila alpestris actia California horned lark	Fed: none CA: CSC BLM: none FS: none	Present: CCRA-DEV High: CL-STC Moderate: SBJ-SBS; BN-BM	(WR) Occurs in grasslands and other open habitats.
SYLVIIDAE (gnatcatchers)			
Polioptila californica californica coastal California gnatcatcher	Fed: THR CA: CSC BLM: none FS: none	Moderate: SBJ-VS	(WR) Occurs in coastal sage scrub below 2,500' from Ventura to Baja California.
MIMIDAE (mockingbirds and thrashers)			
Toxostoma bendirei Bendire's thrasher	Fed: none CA: CSC BLM: SS FS: none	High: COR-MS; MS-CCRA	Nests in yucca, cholla, palo verde or small trees in desert succulent shrub/Joshua tree habitats.
Toxostoma crissale Crissal thrasher	Fed: none CA: CSC BLM: none FS: none	High: COR-MS; MS-CCRA	(CV) Inhabits desert riparian and desert wash habitats.
Toxostoma lecontei Le Conte's thrasher	Fed: none CA: CSC BLM: SS FS: none	Present: COR-MS; MS-CCRA; CCRA-DEV; DEV-EBB	(CV) Requires dense, spiny shrubs for nesting. Found in a variety of desert habitats.

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat
PARULIDAE (wood-warblers)			
Dendroica petechia brewsteri yellow warbler (nesting)	Fed: none CA: CSC BLM: none FS: none	High: DEV-EBB; CL-STC	(CV, WR) Prefers to nest in willows, cottonwoods, aspens and other trees in riparian areas.
Dendroica petechia sonorana Sonoran yellow warbler	Fed: none CA: CSC BLM: none FS: none	High: COR-MS	Summer resident of the Colorado River Valley; nests in cottonwood and willow trees in riparian deciduous habitat.
Icteria virens yellow-breasted chat (nesting)	Fed: none CA: CSC BLM: none FS: none	Moderate: COR-MS; DEV-EBB	(CV, WR) Nests in riparian thickets of willows and other brushy tangles along watercourses.
THRAUPIDAE (tanagers)			
Piranga rubra summer tanager (nesting)	Fed: none CA: CSC BLM: none FS: none	High: COR-MS	(CV) Nests in desert riparian areas near the lower Colorado River. Requires cottonwood-willow riparian for nesting and foraging.
EMBERIZIDAE (sparrows, buntings, warblers and relatives)			
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: none CA: CSC BLM: none FS: none	High: CL-VS Moderate: BN-BM	(WR) Occurs on steep, dry hillsides in scrub and chaparral habitats.
Amphispiza belli belli Bell's sage sparrow	Fed: none CA: CSC BLM: none FS: none	Moderate: BN-BM; SBJ-VS; CL-STC	(WR) Occurs in chaparral habitat with dense stands of chamise.
MAMMALS			
PHYLLOSTOMIDAE (leaf-nosed bats)			
Macrotus californicus California leaf-nosed bat	Fed: none CA: CSC BLM: none FS: S	High: COR-MS Moderate: MS-CCRA; CCRA-DEV; DEV-EBB	Roosts in mines, caves or rugged terrain in desert riparian, desert wash and desert scrub habitats.
VESPERTILIONIDAE (evening bats)			
Antrozous pallidus pallid bat	Fed: none CA: CSC BLM: SS FS: S	High: MS-CCRA Moderate: COR-MS; MS-CCRA; CCRA-DEV; DEV-EBB; BN-BM; CL-STC; SBJ-VS	Roosts in dry, open habitats. Occurs in desert, grasslands, shrub lands, woodlands and forests.
Corynorhinus townsendii Townsend's big-eared bat	Fed: none CA: CSC BLM: SS FS: S	High: COR-MS Moderate: MS-CCRA; CCRA-DEV; DEV-EBB; BN-BM; CL-STC; SBJ-VS; SBJ-SBS	Occurs in a variety of habitats throughout California. Roosts in open areas.
Euderma maculatum spotted bat	Fed: none CA: CSC BLM: SS FS: none	High: COR-MS; DEV-EBB Moderate: MS-CCRA; CCRA-DEV; DEV-EBB; BN-BM; CL-STC; SBJ-VS	Found in various habitats including desert, montane and chaparral communities.
Lasiurus xanthinus western yellow bat	Fed: none CA: none BLM: none FS: none	High: CRRA-DEV; DEV-EBB; BN-BM Moderate: COR-MS; CL-STC; SBS-VS; SBS-SBJ	(CV) Roosts in palm trees in foothill riparian, desert wash and palm oasis habitats with access to water for foraging.
Myotis occultus Arizona myotis	Fed: none CA: CSC BLM: none FS: none	High: COR-MS Moderate: MS-CCRA	Occurs in the lowlands of the Colorado River and desert mountain ranges nearby.

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat
Myotis thysanodes fringed myotis	Fed: none CA: none BLM: SS FS: none	Moderate: COR-MS; MS-CCRA; CCRA-DEV; DEV-EBB; BN-BM; CL-STC; SBJ-SBS	Roosts in caves and attics of buildings and houses.
Myotis velifer cave myotis	Fed: none CA: CSC BLM: SS FS: none	High: COR-MS Moderate: MS-CCRA	Found in the lowlands of the Colorado River and adjacent mountain ranges with access to caves or mines for roosting.
Myotis yumanesis Yuma myotis	Fed: none CA: CSC BLM: none FS: none	High: COR-MS Moderate: CCRA-DEV; DEV-EBB	Occurs in open forests and woodlands with close vicinity to permanent water sources for foraging and drinking.
MOLOSSIDAE (free-tailed bats)			
Eumops perotis californicus western mastiff bat	Fed: none CA: CSC BLM: SS FS: none	High: MS-CCRA Moderate: COR-MS; MS-CCRA; CCRA-DEV; DEV-EBB; BN-BM; CL-STC; SBJ-VS	Roosts in crevices of high cliffs and trees in open, arid and semi-arid habitats.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: none CA: CSC BLM: none FS: none	High: MS-CCRA Moderate: COR-MS; CCRA-DEV; DEV-EBB	Found in pine-juniper woodlands, desert scrub and palm oasis habitats in southern California.
Nyctinomops macrotis big free-tailed bat	Fed: none CA: CSC BLM: none FS: none	Moderate: COR-MS; MS-CCRA CCRA-DEV; DEV-EBB; CL-STC; SBJ-VS	Roosts on high cliffs or rocky outcrops.
LEPORIDAE (rabbits and hares)			
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: none CA: CSC BLM: none FS: none	High: BN-BM	(WR) Found in coastal sage scrub habitats in southern California.
SCIURIDAE (squirrels and relatives)			
Spermophilus tereticaudus chlorus Palm Springs round-tailed ground squirrel	Fed: FC CA: CSC BLM: none FS: none	High: CCRA-DEV; DEV-EBB	(CV) Found in the Coachella Valley in succulent desert scrub, desert wash and desert scrub habitats.
HETEROMYIDAE (kangaroo rats, pocket mice and kangaroo mice)			
Chaetodipus californicus femoralis Dulzura pocket mouse	Fed: none CA: CSC BLM: none FS: none	High: BN-BM Moderate: CL-STC; SBS-VS; SBJ-SBS	Found in coastal scrub, chaparral and grassland habitats.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: none CA: CSC BLM: none FS: none	High: DEV-EBB; BN-BM; CL-STC; SBS-VS; SBJ-SBS	(WR) Found in coastal scrub, chaparral and grassland communities with sandy, herbaceous areas.
Chaetodipus fallax pallidus pallid San Diego pocket mouse	Fed: none CA: CSC BLM: none FS: none	High: MS-CCRA Moderate: COR-MS; CCRA-DEV; DEV-EBB	Found in sandy, herbaceous areas occurring in desert wash, desert scrub and desert succulent shrub habitats.
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: END CA: CSC BLM: none FS: none	Moderate: CL-STC; SBJ-SBS; SBJ-VS	(WR) Occurs in alluvial scrub habitat with sandy soils for burrowing.
Dipodomys stephensi Stephen's kangaroo rat	Fed: END CA: THR BLM: none FS: none	High: BN-BM Moderate: CL-STC; SBS-VS	(WR) Found in annual and perennial grasslands, preferring buckwheat, chamise, brome grass and filaree.

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat
Perognathus alticolus alticolus San Bernardino white-eared pocket mouse	Fed: none CA: CSC BLM: none FS: S	Moderate: BN-BM; CL-STC	Historically found in open pine forests, grassy flats and pinyon-juniper woodland habitats.
Perognathus longimembris bangsi Palm Springs pocket mouse	Fed: none CA: CSC BLM: none FS: none	High: CCRA-DEV; DEV-EBB	(CV) Found in desert scrub, desert riparian, desert scrub and sagebrush habitats.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: none CA: CSC BLM: none FS: S	High: DEV-EBB; BN-BM; CL-STC; SBS-VS Moderate: CCRA-DEV; CL-STC	(WR) Associated with sandy washes, scrub, and grasslands.
MURIDAE (mice, rats and voles)			
Neotoma lepida intermedia San Diego desert woodrat	Fed: none CA: CSC BLM: none FS: none	High: BN-BM; CL-STC	(WR) Occurs in scrub with dense canopies and rocky cliffs and slopes.
Onychomys torridus ramona southern grasshopper mouse	Fed: none CA: CSC BLM: none FS: none	Moderate: BN-BM; CL-STC; SBJ-SBS; SBJ-VS	Inhabits open country with grasses and sagebrush. Prefers sandy to gravelly soils.
Sigmodon arizonae plenus Colorado River cotton rat	Fed: none CA: CSC BLM: none FS: none	Moderate: COR-MS	Inhabits the Colorado River floodplain in areas with marsh plants such as sedges and rushes.
MUSTELIDAE (weasels and relatives)			
Taxidea taxus American badger	Fed: none CA: CSC BLM: none FS: none	High: COR-MS; BN-BM; SBJ-SBS Moderate: MS-CCRA; CCRA-DEV; DEV-EBB; BN-BM; SBJ-VS	Associated with dry scrub, forest, and herbaceous habitats.
FELIDAE (cats and relatives)			
Puma concolor browni Yuma mountain lion	Fed: none CA: CSC BLM: none FS: none	Moderate: COR-MS; MS-CCRA	Nocturnal; found in rugged mountains and forests.
BOVIDAE (sheep and relatives)			
Ovis canadensis nelsoni Nelson's bighorn sheep	Fed: none CA: none BLM: SS FS: S	High: COR-MS Moderate: MS-CCRA	Inhabits open, rocky, steep areas with access to water and herbaceous vegetation.
Ovis canadensis nelsoni (*cremnobates*) peninsular bighorn sheep	Fed: END CA: THR/FP BLM: none FS: none	High: CCRA-DEV; DEV-EBB; BN-BM Moderate: MS-CCRA	(CV) Found in open desert scrub below 4,000 feet elevation ranging from south of San Gorgonio Pass to Mexico.

Federal Designations (Federal Endangered Species Act, USFWS):
END: federally listed, endangered
THR: federally listed, threatened
FC: federal candidate species
FSC: federal species of concern
FPD: federal proposed for delisting
DL: federal delisted

State Designations (California Endangered Species Act, CDFG):
END: State listed, endangered
THR: State listed, threatened
CSC: California special concern species
FP: DFG fully protected species

Other Designations:
SS: Bureau of Land Management sensitive species
S: U.S. Forest Service sensitive species

Table D.2-5. Known or Potentially Occurring Wildlife

Scientific Name Common Name	– Status –	Potential to Occur: Transmission Line Segment	Habitat

MSHCP Designations:
CV: Proposed covered species under Coachella Valley Multiple Species Habitat Conservation Plan
WR: Species covered under Western Riverside County Multiple Species Habitat Conservation Plan

Source: California Natural Diversity Data Base (CNDDB), Western Riverside Multiple Species Habitat Conservation Plan, Coachella Valley Multiple Species Habitat Conservation Plan, Environmental Planning Group (December 2003), BioResource Consultants (October 2003), Dames and Moore (September 1994), Greystone Environmental Consultants (August 2005), TetraTech and Alice Karl & Associates (August 2005).
DENOTES "unlikely" along most of the ROW, with one to three exceptions in cases where PFO is "low" in some segments. .

Listed Wildlife Species. The results of the literature review indicate that 33 wildlife species that are listed as threatened and/or endangered, or are considered candidates for listing, potentially occur in the region around the project area. Of these 33 listed species, 23 are either known to occur or have a high, moderate, or low potential to occur, and are discussed in more detail in Appendix 7. The remaining 10 species are unlikely to occur and are also discussed in detail in Appendix 7.

Two listed species, the Coachella Valley fringe-toed lizard and desert tortoise, are known to occur in the proposed ROW, and 19 species have a high or moderate potential to occur. These species are listed in Table D.2-5. Two species have a low potential to occur.

Sensitive Wildlife Species. Seventy-five sensitive wildlife species are known to occur in the project area or have a potential to occur within the project area, and are discussed in more detail in Appendix 7. Eleven sensitive wildlife species have been recorded in or adjacent to the proposed ROW. Thirty-four sensitive wildlife species have a high potential to occur and another 19 species have a moderate potential to occur. Table D.2-5 lists the sensitive wildlife species that are either known to occur in the project area or that have a high or moderate potential to occur in the project area. Eleven sensitive wildlife species are unlikely to occur, or have a low potential to occur in the project area.

D.2.1.1.4 Overview of Special Habitat Management Areas

Arizona

The Proposed Project is located in the vicinity of several designated Special Habitat Management Areas in Arizona.

- BLM Desert Tortoise Management Areas Categories II, and III
- Kofa National Wildlife Refuge
- BLM Wilderness areas (See Section D.5 Wilderness and Recreation)
- United States Fish and Wildlife Service (USFWS) Designated Critical Habitat for the razorback sucker
- Cactus Ferruginous Pygmy-owl Survey Zone 3

BLM Desert Tortoise Management Areas Categories I, II, and III. Portions of the Proposed Project are located within BLM–administered lands, which have category designations associated with habitat for the Sonoran population of the desert tortoise and are outlined in the December 1996 *Management Plan for the Sonoran Desert Population of the Desert Tortoise in Arizona*. These categories include Category I, Category II, and Category III. The Category I designation includes areas with a goal to maintain stable, viable populations; protect existing tortoise habitat values; and increase populations, where possible. The most important criterion used for designating areas as Category I habitat is that these habitat areas are essential to the maintenance of large, viable populations. The Category II designation includes areas with a goal to maintain stable, viable populations and halt further declines in tortoise

habitat values. The most important criterion used for designating areas as Category II habitat is that these habitat areas may be essential to the maintenance of viable populations. The Category III designation includes areas with a goal to limit tortoise habitat and population declines to the extent possible by mitigating impacts. The most important criterion used for designating areas as Category III habitat is that these habitat areas are not essential to maintenance of viable populations. The Proposed Project crosses through areas designated as Category II and Category III. Areas where the Proposed Project passes through Category II include approximately one mile in the Eagletail Mountains and approximately 12 miles in the Dome Rock Mountains. Areas where the Proposed Project passes through Category III include approximately eight miles in the Big Horn Mountains.

Kofa National Wildlife Refuge. The Proposed Project would traverse approximately 20 miles within the boundaries of the Kofa NWR. The Kofa NWR was established in 1939 and encompasses 665,400 acres of pristine desert. The refuge manages populations of desert bighorn sheep, desert tortoise, and the California palm (*Washingtonia filifera)*, the only native palm in Arizona. Wildlife species found in the area include the white-winged dove, American kestrel, white-winged dove, northern flicker, Say's phoebe, cactus wren, phainopepla, orange-crowned warbler, desert kit fox, and several lizards and snakes. The Kofa Mountain barberry (a rare plant found only in southwest Arizona) occurs on the refuge as well as giant saguaro, ferocacti and several types of opuntia.

Arizona Game and Fish Department (AGFD) Game Management Units. The Arizona Game and Fish Department (AGFD) has divided the State into six regions and each region into Game Management Units. These units are geographic areas in which game populations are monitored and hunting privileges are assigned or restricted. The Proposed Project is located within the boundaries of several Game Management Units (GMU), as designated by the Arizona Game and Fish Department (AGFD). These include GMU 41E, GMU 43A, GMU 44B (South), GMU 45A, and GMU 45B. Within these GMUs, the AGFD monitors populations of game animals, such as bighorn sheep, mule deer, javelina, dove, and quail, in order to assess how much hunting of each species in the GMU should be allowed.

Desert bighorn sheep (*Ovis canadensis nelsoni*) live in dry, desert mountain ranges and foothills, near rocky cliffs, in an environment that is almost waterless and relatively barren of vegetation. Rutting season is in the autumn and early winter though mating can last from July to December. While births may occur year round the highest concentration of lambing occurs from January to May. Utility ROWs are allowed through the refuge in accordance with refuge planning policy Management of Utility Rights of Way – Guidance for the management of utility easements in non-wilderness portions of Kofa NWR can be found in 50 CFR 29.21. No additional guidance is needed.

United States Fish and Wildlife Service (USFWS) Designated Critical Habitat for the Razorback Sucker. The land within the Proposed Project segment that would cross the Colorado River is Designated Critical Habitat for the razorback sucker, which is federally listed as Endangered and State listed as Wildlife of Special Concern in Arizona (WSCA). The USFWS defines critical habitat as specific geographic areas, whether occupied by a listed species or not, that are essential for its conservation and that have been formally designated by rule published in the Federal Register.

Cactus Ferruginous Pygmy-owl Survey Zone 3. The portion of the Proposed Project within Maricopa County would be located within the designated Survey Zone 3 for the federally endangered and State WSCA cactus ferruginous pygmy-owl (CFPO) as defined by the USFWS in the March 2000 *Recommended Guidance for Private Landowners Concerning the Cactus Ferruginous Pygmy-owl* (USFWS 2000). CFPO Survey Zone 3 is defined as areas within the historic range of the pygmy-owl with a low potential of occupancy. The cactus ferruginous pygmy-owl (CFPO is federally listed as endangered and

is considered a Wildlife of Special Concern in Arizona (WSCA) by the Arizona Game and Fish Department (AGFD). On April 13, 2006, the USFWS announced that the CFPO would be removed from protection under the ESA effective on May 15, 2006. However, this species will still receive protection under the Migratory Bird Treaty Act (USFWS, 2006a).

The CFPO occurs from southern Arizona east to extreme southwestern Texas, and southward in Mexico to Guerrero, Nuevo Leon, and southern Tamaulipas (Oberholser, 1974, cited in Millsap and Johnson, 1988). In Arizona, breeding pairs recently have been found at Organ Pipe Cactus National Monument, in areas northwest of Tucson, north of the Tortolita Mountains, and in the Buenos Aires National Wildlife Refuge. The owl was formerly more widespread in Arizona, occurring as far north as New River (Johnson et al., 1999; Millsap and Johnson, 1988). Historically in Arizona, CFPOs were found in mesquite woodlands, cottonwood-willow riparian forests, and less commonly in palo verde-mixed cacti forest. However, most recent observations of this species are from habitats dominated by mesquite, palo verde, desert ironwood, and catclaw acacia. The most current USFWS data shows that the population is hovering around 20 individuals. These individuals are located in the following areas: Organ Pipe Cactus National Monument, the Altar Valley, northwest Tucson, south-central Pinal County, and the Tohono O'odham Nation lands (USFWS, 2006b).

All portions of the Proposed Route for the DPV2 project that are located south of I-10 and within Maricopa County would fall within the USFWS recommended Survey Zone 3. This is a USFWS classification of CFPO habitat that includes areas within the historic range of the CFPO with a low potential of occupancy. However, the Proposed Route does not contain suitable CFPO habitat, as defined by the January 2000 USFWS protocol for the species. Habitat components (mesquites, palo verde, and columnar cacti) were observed but they did not occur with the same density and structure as defined by the January 2000 USFWS protocol for the species. Furthermore, only approximately 20 individuals are currently known to exist and these locations are 60 miles or greater from the eastern end of the Proposed Route. Therefore, CFPO surveys are not recommended for this project due to the lack of suitable habitat and the considerable distance of the Proposed Route to the nearest known current locations. Because the pygmy-owl has a low potential of occurring within the project area, it is not addressed further in this document.

California

Within California, the Proposed Project would be located in the vicinity of federal, State, and local designated Special Habitat Management Areas.

- California Desert Conservation Area
- Wild Horse and Burro Management area
- BLM Wilderness areas (designated by California Desert Protection Act, See Section D.5, Wilderness and Recreation)
- Areas of Critical Environmental Concern
- Riverside County Natural Areas/Reserves
- Other State Lands
- Other Federal Lands
- Multiple Species Habitat Conservation Plan areas
- Designated Critical Habitat

California Desert Conservation Area. The California Desert Conservation Area (CDCA) is a 25-million-acre expanse of land in southern California designated by Congress in 1976 through the Federal Land Policy and Management Act (FLPMA). The BLM administers about 10 million of those acres. When Congress

created the CDCA, it recognized its special values, proximity to the population centers of southern California, and the need for a comprehensive plan for managing the area. Congress stated that the California Desert Conservation Area Plan must be based on the concepts of multiple use, sustained yield, and maintenance of environmental quality. The proposed project ROW, from just west of Whitewater Canyon to the Colorado River falls within the CDCA.

The Wildlife Element of the CDCA contains objectives and goals designed to: manage federally and State listed species and their habitats; comply with existing legislation and BLM policies; provide certain species designated as sensitive by the BLM special consideration and attention in the planning process; consider the habitat of all fish and wildlife in implementing the Plan; manage representative habitats using a holistic approach; give habitats unique to the CDCA special management consideration and manage them so as to maintain their unique biological characteristics; and manage sensitive habitat using a holistic, systems-type approach. Some examples of sensitive habitats include: riparian areas, wetlands, sand dunes, relict and island habitats, washes, and important ecological zones between different major ecosystems and deserts.

The primary active wildlife management tools used in the Plan are Areas of Critical Environmental Concern (ACEC) and Habitat Management Plans (HMP). The Plan also affords protection to fish and wildlife resources through the designation of Multiple-Use Class L, which limits the number and location of routes that are approved. In addition, the Plan also includes a designation of Special Areas (SA) that highlights habitats and species that should receive special consideration in the environmental assessment process for all project types. Two additional designations in the Wildlife Element are Research Natural Area (RNA) and Sikes Act Agreement. RNAs have been proposed in a few locations where research and education would be the primary uses. Sikes Act Agreements are cooperative agreements between the BLM and the CDFG for joint development and implementation of an HMP. The Plan identified 89 special fish and wildlife areas that would receive active habitat management and/or special attention in the environmental assessment process. Twenty-eight areas were identified as ACECs solely or partially to protect fish and wildlife resources.

The Plan also provides guidelines for the implementation and monitoring to gauge the effectiveness and overall success of the Wildlife Element as well as the entire Plan. ACECs located within or adjacent to the ROW include Chuckwalla Valley Dune Thicket, Chuckwalla Mountains (bighorn sheep habitat), Whitewater Canyon, and Big Morongo Canyon. The Orocopia Mountains and Chuckwalla Mountains Native Ungulate HMPs prescribe management for species and habitats, but primarily focus on the management actions addressing the needs of burro deer and bighorn sheep. These plans were prepared in cooperation with the CDFG. An HMP has yet to be developed for the Eagle Mountains.

The Vegetation Element of the Plan contains the following goals: to conserve federally and State listed rare, threatened, or endangered plants and to further the purposes of the ESA and similar State laws; to treat unusual plant assemblage (UPA) rates as highly sensitive and very sensitive in a manner that will preserve their habitat and ensure their continued existence; to manage wetland and riparian areas in the desert; to sustainably maintain the continued existence and biological viability of the vegetation resource in the CDCA while providing for the consumptive needs of wildlife, livestock, wild horses and burros, and public uses; to provide guidance for the manipulation of plant habitats or vegetation; and to encourage the use of private desert lands for commercial production of valuable desert plants. The Plan identifies the need for monitoring efforts and directing these efforts to those areas with the greatest management need. The Plan also identifies plant assemblages that are associated with springs, and more specifically palm oases, that are present in the Chuckwalla Mountains, Orocopia Mountains, Mecca Hills, Eagle Mountains, and Indio Hills. None of these oases are located within the proposed ROW; however, the oases are close.

The Wild Horse and Burro Element contains the following goals: to provide year-long food requirements of wild horses and burros; to provide adequate cover for wild horses and burros; to provide adequate water to meet the year-long requirements of wild horses and burros; to provide adequate living space for wild horses and burros; and to protect wild horses and burros on public lands. The CDCA established 17 Herd Management Areas (HMAs) where the populations of wild horses and burros would be protected and managed. Two HMAs are present near the ROW, including the Chocolate/Mules HMA and the Morongo HMA. According to the CDCA, the Yuma, Arizona BLM District was given the lead for writing and implementing the Herd Management Area Plan (HMAP) for the Colorado River HMAP, which includes the Dead Mountain, Chemehuevi, Chocolate/Mules, and Picachos HMAs. The Low Desert HMAP, which includes the Kramer, Morongo, Palm Canyon, and Coyote Canyon HMAs, is a lower priority because of the small populations of burros in these areas.

Wild Horse and Burro Management. Management of wild free-roaming horses and burros was authorized by Congress in the early 1970s and policies were amended by The Federal Land Policy and Management Act of 1976 and The Public Rangelands Improvement Act of 1978. The regulations found at 43 CFR Part 4700 and the 4700 BLM Manual series prescribe the authorities, objectives, and policies that guide the protection, management, control, and disposition of wild free-roaming horses and burros in accordance with the Act. The policy of the BLM is to manage wild horses and burros in a manner that will ensure healthy herds for future generations of Americans, and contribute to the diversity of life forms on public lands administered by the BLM. The areas where wild horses and burros were known to exist at the time of the passage of the Wild Horse and Burro Act for the California Desert District are managed by the California BLM. However, the narrow strip of California which lies along the Colorado River is managed by the Arizona BLM. Separate herd management area plans (HMAPs) provide more specific burro management guidance. Two Herd Management Areas (HMAs) are located near the ROW, including Morongo and Chocolate/Mules HMAs.

California Desert Protection Act. On October 31, 1994, Congress enacted the California Desert Protection Act (CDPA) (Public Law 103 433), thereby designating certain lands in the California desert as wilderness in furtherance of the purpose of the Wilderness Act and Sections 601 and 603 of FLPMA. Of the 69 areas designated as BLM wilderness through the CDPA, three occur adjacent to the ROW. These include Chuckwalla Mountains, Mecca Hills, and Orocopia Mountains. Within the wilderness areas, management activities are allowed, as well as the continued grazing of livestock in those areas where it was established prior to the date of enactment of the CDPA.

Areas of Critical Environmental Concern. The locations where the Proposed Project crosses Areas of Critical Environmental Concern are shown in Figures D.5-1 through D.5-4.

- **Chuckwalla DWMA ACEC.** The Chuckwalla Desert Wildlife Management Area (DWMA), which is also designated as an ACEC through the Northern and Eastern Colorado Desert Coordinated Management Plan, was designated to protect desert tortoise, and significant natural resources including special status plant and animal species and natural communities. This vast area contains a variety of desert habitats that are still relatively undisturbed in most places. The dominant plant community in the area is creosote bush scrub, with creosote bush, burro weed, ocotillo, and brittle bush, as the most conspicuous species. In the alluvial washes the typical wash woodland includes mesquite, desert ironwood, smoke tree, palo verde, and desert willow (*Chilopsis linearis*). There are stands of the California fan palm (*Washingtonia filifera*) in several of the oases. At least two rare plants, a cactus, *Escobaria vivipara var. alversonii*, and *Ditaxis californica*, occur in the Chuckwalla DWMA. Within the area, there is a wide variety of lower-Sonoran animal life. Over 20 species of reptiles likely occur in the area. The desert bighorn (*Ovis canadensis*) is found in the mountains.

- **Chuckwalla Valley Dune Thicket ACEC.** The Chuckwalla Valley Dune Thicket ACEC is located in the Chuckwalla Valley, at the confluence of a wash and a small dune system. The area supports a series of small pockets, 0.25 to 0.6 acres in extent, of desert wash woodland. Palo verde is the dominant species with desert ironwood scattered throughout. Prominent elements of the understory are *Brandegea bigelovii* and *Sarcostemma cynanchoides* ssp. *hartwegii*. The areas adjacent to the woodlands are occupied by creosote bush, some of which exceed 10 feet in height. The Mojave fringe-toed lizard (*Lima scoparia*) is also found in this ACEC, which is near the southern extent of its range.

- **Coachella Valley Preserve and Willow Hole-Edom Hill Preserve/ACEC.** The Coachella Valley Preserve is actually a preserve system that includes three separate units, totaling over 20,000 acres. The Preserve was initially established pursuant to the Coachella Valley Fringe-Toed Lizard Habitat Conservation Plan that was approved in 1986. The three preserves that were established included: Coachella Valley (Thousand Palms), Whitewater Floodplain, and Willow Hole/Edom Hill. The goal in establishing three separate preserves was to ensure that three separate desert sand dune ecosystems, each with separate sand sources and processes, were fully protected. The largest of these units, at roughly 17,000 acres, is centered on Thousand Palms Canyon which cuts through the Indio Hills, and borders the northern edge of the Coachella Valley half way between the Cities of Palm Springs and Indio. This preserve ranges from near sea level at its southern extreme to over 1000 feet amsl in the Indio Hills. The other two preserve units occur at the western end of the valley, north of the City of Palm Springs.

  The Coachella Valley Preserve was established through a Habitat Conservation Plan to protect the federally threatened, Coachella Valley fringe-toed lizard (*Uma inornata*). The lizard was listed in 1980; however, the preserve system was not officially dedicated until April of 1986. Beginning in 1984, there was a two-year process of study, planning and negotiation that involved the nine cities, Riverside County, the USFWS, CDFG and The Nature Conservancy. The Coachella Valley Preserve System Management Plan, in part, addressed the management of public lands in the Thousand Palms, Willow Hole-Edom Hill, and Indian Avenue Preserves primarily for the protection of the Coachella Valley fringe-toed lizard. Public lands within these areas were designated as an ACEC. The proposed Coachella Valley Multiple Species Habitat Conservation Plan effort would dramatically expand and enhance the security and viability of the preserve system.

  The preserve system has been managed collectively by the agencies, including USFWS, BLM, CDFG, CDPR and the Nature Conservancy, that own land within the preserves. In 1997, The Nature Conservancy (TNC) decided to transfer their ownership and management responsibilities so that they could focus their resources on protecting endangered landscapes elsewhere. The Center for Natural Lands Management was selected to continue and expand upon TNC's role in the protection and management of the Coachella Valley preserve system.

- **Big Morongo Canyon ACEC.** Big Morongo Canyon is located in the Little San Bernardino Mountains north of the City of Desert Hot Springs. The desert oasis at Big Morongo Canyon is one of the 10 largest cottonwood and willow riparian habitats in California. The upstream end of the canyon lies in the Mojave Desert, while its downstream portion opens into the Colorado Desert. In 1974, approximately 240 acres of land owned by The Nature Conservancy and San Bernardino County was combined and dedicated as a Wildlife Preserve. In 1982, the BLM recognized the ecological features of the area and designated almost 3,700 acres of the ridge and canyon as an ACEC. Big Morongo Canyon Preserve now encompasses 31,000 acres, with wildlife corridors connecting the Preserve to Joshua Tree National Park. These corridors allow wildlife, including mule deer, bighorn sheep, mountain lions, and the California black bear to move freely across wilderness in search of

food and water. Today the Preserve is managed by BLM with the assistance from the Friends of Big Morongo Canyon Preserve. The Big Morongo Canyon ACEC Management Plan was prepared to provide additional protection to an area especially high in wildlife and vegetation values.

- **Whitewater Canyon ACEC.** Whitewater Canyon is characterized as a canyon varying in width, flanked by steep slopes on the west and moderate slopes on the east. In this area, montane and desert species meet. Vegetation is a mixture of desert wash, desert slope and riparian communities with some mountain species extending into the canyon. Desert bighorn sheep (*Ovis canadensis nelsoni*) occasionally occur in the upper reaches of the canyon. There is a rich and varied population of amphibians and reptiles including the mountain yellow-legged frog (*Rana muscosa*). The San Gorgonio cutthroat trout (*Salmo clarki euermanni*) was probably found in the headwaters of the Whitewater River at one time, but now is most likely extinct. The Whitewater River drains the easterly slopes of San Gorgonio Peak and flows permanently in much of the canyon, disappearing underground in the boulder-strewn lower reaches where it reaches the desert. Roads, homes, quarrying, and a trout hatchery have disturbed portions of the area, but the main threat to the fauna is over-collecting. The Whitewater Canyon ACEC Management Plan was prepared to provide protection to wildlife and Native American resource values.

Riverside County Natural Areas/Reserves.

- **McCoy Wash.** McCoy Wash, northwest of the City of Blythe, drains portions of the Big and Little Maria and McCoy Mountains and supports extensive ironwood woodlands containing ironwood, palo verde, smoke tree, desert willow, and mesquite. The lush woodland grades into a creosote bush scrub in the higher sections. Creosote and burro-weed, *Ambrosia dumosa*, are the main elements of the scrub. The woodland is an important refuge for migrating birds and it also provides nesting grounds for a number of breeding birds. It also supports a diverse population of mammals. With the exception of a few rocky outcrops, most of the area is composed of dissected alluvial fans or riverwash.
- **Indio Hills Native Palms Natural Area.** This is one of 24 oases located along the San Andreas Fault zone where the native California fan palm is found, and it is also one of the few publicly owned. Twenty-three palms are located in this group. To the north is the "badland" topography of the Indio Hills. The canyon to the north presents an intricately sculptured landscape, characterized by a labyrinth of gorges separated by ridges varying from sharply crested to nearly flat-topped.
- **Indio Hills Palm Oases.** Of the 24 oases distributed along the San Andreas or associated faults, the 11 in the Indio Hills are among the most pristine and one, Thousand Palms, is considered the finest of all Palm oases in the State. Over a quarter of the known California fan palms are found in these oases. This palm is now restricted to localities with permanent water supplies, usually found in fault areas. The tree is comparatively uncommon, with perhaps 100 stands in California, ranging from two or three specimens up to several thousand at Palm Canyon. There is one stand in Arizona and a number of large stands in Baja California. The Indio Hills oases consist of two types: the seep type, which is found on the hillsides, and the wash type, which is found on the floors of canyons. There is a distinct difference in vegetation, with the seep type marked by the rush (*Juncus mexicanus*) and the saltbush and the wash type characterized by the smoke tree, which is dependent on flood waters and rock abrasion for seed dissemination and germination.
- **Orocopia Mountains.** The Orocopia Mountains are a geological area of considerable interest in determining the displacement history of the San Andreas Fault. The rocks exposed in the mountain ranges are from Pre-Cambrian gneiss, which has yielded at least one radiometric age date of 2,400,000 years, to recent alluvium. The area is riddled with faults, and various colored, folded strata, which have been uncovered by erosion, form spectacular displays. Vegetation on the slopes

is sparse and consists of creosote bush scrub, with occasional cactus gardens. The washes support a greater amount of plant life. The area supports a typical Colorado Desert fauna, including the desert tortoise, which is relatively abundant in the area.

- **Mecca Hills.** Lying to the north of the Salton Sea, the Mecca Hills are noted for their unusual geological features as well as the uniqueness of the rock formations. Vegetation is sparse except in the washes where typical species include smoke tree, palo verde, ironwood, mesquite, catclaw, and desert willow. On the hillsides creosote bush scrub occurs. Two rare plants have been reported in the area, *Xylorhiza cognata* and *Salvia greatae*. Wildlife species typical of the desert would be expected to occur. Desert bighorn sheep have been observed in the area.
- **Box Springs Reserve.** Box Springs Reserve is located near the top of the Box Springs Mountains, which lie immediately east of the University of California Riverside campus. This reserve is in an ecotone between the coastal sage scrub and chaparral plant communities. There is an intermittent streambed located near the north boundary of the reserve that contains riparian habitat. This area supports a diverse population of wildlife species, including the coast horned lizard and the orange-throated whiptail lizard (*Cnemidophorus hyperythru*), which have been recorded in the reserve, as have nearly 50 species of birds. As part of the University of California Natural Land and Water Reserves System, the Box Springs Reserve is virtually undisturbed; however development has occurred in nearby areas.

Other State Lands.

- **Potrero Creek Conservation Unit – San Jacinto Wildlife Area.** The Potrero Creek Conservation Unit is a 9,117-acre area located in the San Jacinto Mountains south of the City of Beaumont and east of the San Jacinto Valley. This Conservation Unit resulted from a cooperative partnership between The Conservation Fund, Lockheed Martin Corporation, the State of California, the U.S. Fish and Wildlife Service, and Riverside County. The Conservation Unit was added to the CDFG's San Jacinto Wildlife Area. The habitats in the Potrero Creek Conservation Unit include grasslands, sage scrub, chaparral, and riparian woodlands. The site supports one of the largest known contiguous populations of the federal and State listed Stephens' kangaroo rat and includes a significant portion (2,000 to 2,200 acres of occupied and potential habitat, or approximately 7 percent) of the known Stephens' kangaroo rat population in Riverside County. The site also supports 30 other species of concern. The inclusion of this property as part of the San Jacinto Wildlife Area will protect the core habitat for bobcat, cactus wren, loggerhead shrike, and Bell's sage sparrow and facilitate wildlife movement north of the San Jacinto Mountains.

Other Federal Lands.

- **Joshua Tree National Park.** On the border between the Mojave and Colorado Deserts, Joshua Tree National Park (JTNP) supports a rich and diverse flora and fauna. Plant communities range from low desert wash to a pinyon-juniper forest, with single-leaved pinyon pine (*Pinus monophylla*), California juniper (*Juniperus californica*), and some scrub oak (*Q. turbinella*). The major communities are the Joshua tree woodland and the creosote bush scrub. The Joshua trees (*Yucca brevifolia*) form dense and extensive groves. Several palm oases occur in the JTNP. The desert bighorn sheep and desert tortoise are two of the species that occur in the JTNP, and that are actively managed for conservation purposes. The JTNP encompasses all or part of a number of mountain ranges, including the Little San Bernardinos, Pinto, Eagle, Hexie, Cottonwood, and Coxcomb. All but the latter two are considered a part of the Transverse Range Province. Management of JTNP is defined by the General Management Plan (GMP). In 1999, the GMP was amended by the Back Country and Wilderness Management Plan, whose goal was update the GMP with the provisions of the California

Desert Protection Act. The purpose of the GMP is to define the overall preservation and use management strategy for resources within the Park. This is approached through management zoning on all lands. Management zoning determines how specific lands in the JTNP are to be managed to protect resources, including species and habitats, and still provide for visitor enjoyment. Four zone classifications are used in the GMP, including Natural, Historic, Development, and Special Use. Within each zone, subzones may be designated to allow for particular management needs and some implementation plans have been developed for specific resources.

- **San Jacinto and Santa Rosa Mountains National Monument.** This Monument was established through the approval of the Santa Rosa and San Jacinto Mountains National Monument Act and was signed into Public Law 106-351 in October of 2000. The Monument contains nationally significant biological, cultural, recreational, geological, educational, and scientific values. The National Monument Management Plan, completed in 2004, reflects the efforts of the two lead agencies, BLM and U.S. Forest Service (USFS), to develop a plan which is capable of dealing with the issues of access, recreation, and the protection of threatened and endangered species, as well as the conservation of native plants and other wildlife and the removal of non-native, invasive, and noxious species. The Management Plan contains implementation decisions that are tiered to the CDCA Plan and San Bernardino National Forest Land and Resource Management Plan (LRMP). The activities associated with these decisions will be implemented as funding permits. The decisions related to the biological resources are focused on the following: habitat management — noxious, non-native, and invasive plant species; management of special status species; and monitoring programs. The Peninsular bighorn sheep, desert tortoise, and desert slender salamander, which are all listed federal species, are present within the boundaries of the Monument.

Multiple Species Habitat Conservation Plans.

- **Western Riverside MSHCP:**
  - **The Pass Area Plan.** The Pass Area Plan covers the area from east of the border of the City of Banning, which is the northeastern boundary of the Western Riverside MSHCP planning area, to the hills west of the Cities of Beaumont and Calimesa. The northern boundary is the Riverside County line and the southern boundary extends approximately to the San Jacinto Mountains. This Plan area includes all of the Cities of Banning, Beaumont, and Calimesa. The Pass Area Plan is divided into three Subunits, including the Potrero/Badlands Subunit, Badlands/San Bernardino National Forest Subunit, and San Timoteo Creek Subunit. Within each Subunit, planning species, and biological issues and considerations are identified that will achieve the conservation goals for the Subunit. The target conservation acreage range for this Plan Area is 22,510 to 27,895 acres, which is comprised of approximately 13,970 acres of existing Public/Quasi-Public Lands and 8,540 to 13,925 acres of Additional Reserve Lands. A number of Cores, Linkages, Constrained Linkages, and Noncontiguous Habitat Blocks are located within this Plan Area.
  - **Potrero/Badlands Subunit.** The target acreage range for Additional Reserve Lands within this Subunit is 5,570 to 9,275 acres. This Subunit includes Cell Groups A, B, and C and an additional six Cells that do not fall within one of these Cell Groups. The Planning Species considered in this subunit include: arroyo toad, Bell's sage sparrow, cactus wren, least Bell's vireo, loggerhead shrike, Southern California rufous-crowned sparrow, bobcat, Los Angeles pocket mouse, mountain lion, San Bernardino kangaroo rat, and Stephens' kangaroo rat. The biological issues and considerations in this Subunit include: (1) provision of a new Core Area focused on the Potrero Creek area, (2) maintenance of large blocks of undisturbed habitat for Core Area

purposes and for large mammal movement between the northern and southern sections of the San Bernardino National Forest, (3) conservation of Potrero Creek and associated Riversidean alluvial fan sage scrub for maintenance of key species, (4) conservation of large habitat blocks in the Badlands, (5) maintenance of Core Area for bobcat, (6) maintenance of core and linkage habitat for mountain lion, (7) maintenance of Core Area in Potrero Valley for Stephens' kangaroo rat, (8) determination of the presence of possible scattered populations of San Bernardino kangaroo rat in the tributaries to San Jacinto River, and (9) determination of the presence of potential Core Area for Los Angeles pocket mouse in tributaries to San Timoteo Creek.

- **Badlands/San Bernardino National Forest Subunit.** The target acreage range for Additional Reserve Lands within this Subunit is 1,105 to 2,195 acres. This subunit includes Cell Groups D and an additional 29 Cells that do not fall within one of these Cell Groups. The Planning Species considered in this Subunit include: Bell's sage sparrow, bobcat, Los Angeles pocket mouse, San Bernardino mountain king snake. The biological issues and considerations in this Subunit include: (1) provision of a connection in the Cherry Valley area from the Badlands to Bogart Park, (2) maintenance of a wetland connection via Noble Creek, (3) determination of the presence of potential linkage area for bobcat, (4) determination of the presence of potential Core Area for Los Angeles pocket mouse in tributaries to San Timoteo Creek, and (5) maintenance of Core Area for San Bernardino mountain king snake.
- **San Timoteo Creek Subunit.** The target acreage range for Additional Reserve Lands within this Subunit is 1,865 to 2,455 acres. This subunit includes Cell Groups E, F, G, and H and an additional 11 Cells that do not fall within one of these Cell Groups. The Planning Species considered in this subunit include: Bell's sage sparrow, Cooper's hawk, least Bell's vireo, loggerhead shrike, southwestern willow flycatcher, white-tailed kite, yellow-breasted chat, yellow warbler, bobcat, Los Angeles pocket mouse, mountain lion, San Bernardino kangaroo rat, and Stephens' kangaroo rat. The biological issues and considerations in this Subunit include: (1) maintenance of wetlands for purposes of connection, wildlife dispersal, and wetlands species conservation, (2) maintenance of a contiguous connection between potential conservation areas in San Bernardino County and the proposed Badlands Core Area, (3) maintenance of winter roosts for white-tailed kites, (4) maintenance of Core and Linkage Habitat for bobcat, (5) maintenance of linkage area for mountain lion and Stephens' kangaroo rat, (6) determination of the potential for scattered populations of San Bernardino kangaroo rat along San Timoteo Creek, and (7) determination of the presence of potential Core Area for Los Angeles pocket mouse in San Timoteo Creek.
- **Reche Canyon/Badlands Area Plan.** The Reche Canyon/Badlands Area Plan covers a large area in northeastern Riverside County. The Reche Canyon/Badlands Area Plan is divided into four Subunits, including Sycamore Canyon/Box Springs East located east of Riverside, Reche Canyon, Badlands North that lie between Beaumont and Moreno Valley, and San Jacinto Wildlife Area/Mystic Lake. Within each Subunit, planning species, and biological issues and considerations are identified in order to achieve the conservation goals for the Subunit. The target conservation acreage range for this Area Plan is 30,815 to 35,905 acres. This target acreage is comprised of approximately 20,295 acres of existing Public/Quasi-Public Lands and 10,520 to 15,610 acres of Additional Reserve Lands. A number of Cores, Linkages, Constrained Linkages and Noncontiguous Habitat Blocks are located within this Plan Area. The City of Moreno Valley sits entirely within the boundaries of this Area Plan.
- **Box Springs East Subunit**. The target acreage range for Additional Reserve Lands within this Subunit is 175 to 350 acres. This Subunit includes Cell Groups A and B and the Planning Species considered in this Subunit include: Bell's sage sparrow, cactus wren, loggerhead shrike, south-

ern California rufous-crowned sparrow, and bobcat. The biological issues and considerations in this Subunit include: (1) conservation of existing, intact upland habitat augmenting existing Box Springs Mountain Reserve, (2) conservation of existing populations of Bell's sage sparrow and cactus wren, and (3) maintenance of linkage areas to Box Springs Mountain for bobcat.

- **Reche Canyon Subunit**. The target acreage range for Additional Reserve Lands within this Subunit is 1,215 to 2,615 acres. This Subunit includes Cell Groups C through P and an additional 10 Cells that do not fall within one of these Cell Groups. The Planning Species considered in this subunit include: Bell's sage sparrow, bobcat, Stephens' kangaroo rat, and Nevin's barberry. The biological issues and considerations in this Subunit include: (1) conservation of upland habitat in the Badlands, (2) maintenance of a connection between Blue Mountain and Reche Canyon, (3) conservation of existing populations of Bell's sage sparrow, (4) maintenance of a Core Area for bobcat, (5) maintenance of core and linkage habitat for mountain lion, (6) determination of the presence of a potential small population of San Bernardino kangaroo rat, (7) determination of the presence of potential Core Area for Los Angeles pocket mouse, and (8) maintenance of Core Area for Nevin's barberry.
- **Badlands – North Subunit**. The target acreage range for Additional Reserve Lands within this Subunit is 8,270 to 10,895 acres. This subunit includes Cell Groups Q through Y, A' through H', and an additional four Cells that do not fall within these Cell Groups. The Planning Species considered in this subunit include: Bell's sage sparrow, cactus wren, loggerhead shrike, Southern California rufous-crowned sparrow, bobcat, Los Angeles pocket mouse, mountain lion, San Bernardino kangaroo rat, Stephens' kangaroo rat, and Nevin's barberry. The biological issues and considerations in this Subunit include: (1) conservation of large habitat blocks in the Badlands, (2) maintenance of Core Area for bobcat, (3) maintenance of core and linkage habitat for mountain lion, (4) maintenance of linkage areas to San Jacinto Wildlife Area for Stephens' kangaroo rat, (5) determination of the potential for scattered population of San Bernardino kangaroo rat along San Timoteo Creek, (6) determination of the presence of potential Core Area for Los Angeles pocket mouse, and (7) maintenance of Core Area for Nevin's barberry.
- **San Jacinto Wildlife Area/Mystic Lake Subunit.** The target acreage range for Additional Reserve Lands within this Subunit is 860 to 1,750 acres. This Subunit includes Cell Groups Z, D', I', and an additional 12 Cells that do not fall within these Cell Groups. The Planning Species considered in this subunit include: American bittern, black-crowned night heron, burrowing owl, California horned lark, double-crested cormorant, loggerhead shrike, mountain plover, northern harrier, osprey, peregrine falcon, tricolored blackbird, white-faced ibis, white-tailed kite, bobcat, Los Angeles pocket mouse, Stephens' kangaroo rat, California orcutt grass, Coulter's goldfields, Davidson's saltscale, San Jacinto Valley crownscale, smooth tarplant, spreading navarretia, thread-leaved brodiaea, vernal barley, and Wright's trichocoronis. The biological issues and considerations in this Subunit include: (1) conservation of alkali playa and other habitat to augment existing conservation in the San Jacinto Wildlife Area and Mystic Lake, (2) conservation of existing vernal pool complexes associated with the San Jacinto river floodplain, (3) provision for a connection of intact habitat between San Jacinto Wildlife Area/Mystic Lake to adjacent Badlands area to the north, (4) conservation of Willow-Domino-Travers soils supporting sensitive plants, (5) provision for and maintenance of a continuous linkage along the San Jacinto River from the southern boundary of the Reche Canyon/Badlands Area Plan to the southeastern Area Plan boundary, (6) maintenance of Core Area for bobcat, (7) maintenance of linkage area for Stephens' kangaroo rat to San Jacinto Wildlife Area, and (8) determination of the presence of potential Core Area for Los Angeles pocket mouse between the Badlands and San Jacinto Wildlife Area.

Final Draft Coachella Valley MSHCP. The Coachella Valley Association of Governments has taken the lead in developing the Coachella Valley MSHCP (CVMSHCP). The planning area for this MSHCP is located within Riverside County and includes most of the urban and urbanizing area in the Coachella Valley, as well as in the Santa Rosa Mountains. The CVMSHCP primarily addresses issues of urbanization, but because the area is within the CDCA, some of the decisions in the CVMSHCP will amend the CDCA. The CVMSHCP will serve as a habitat conservation plan, therefore the decisions in the CVMSHCP will apply to federal, State, and private lands. The CVMSHCP covers 27 species, called Covered Species, and includes 5 plants, 2 insects, 1 fish, 1 amphibian, 3 reptiles, 11 birds, and 4 mammals. In addition, the CVMSHCP identifies 27 natural communities that provide habitat for Covered Species, and these communities are the focal point for establishment of Conservation Areas.

The CVMSHCP also includes the establishment of an MSHCP Reserve System, setting Conservation Objectives to ensure the conservation of the Covered Species and conserved natural communities in the MSHCP Reserve System, provisions for management of the MSHCP Reserve System, and a Monitoring Program and Adaptive Management. The MSHCP Reserve System will be established from lands within 21 Conservation Areas from the following components: existing conservation lands managed by local, State, or federal agencies, or non-profit organizations; complementary conservation; and additional conservation lands. The existing conservation lands include the Coachella Valley fringe-toed lizard (CVFTL) Preserve system established pursuant to the CVFTL Habitat Conservation Plan (HCP), approved in 1986. Three preserves were established; Coachella Valley (Thousand Palms), Whitewater River Floodplain, and Willow Hole-Edom Hill. The Conservation Areas lying within or adjacent to the ROW for the proposed DPV2 project include Cabazon, Stubbe and Cottonwood Canyons, Snow Creek/ Windy Point, Whitewater Canyon, Highway 111/I-10, Whitewater Floodplain, Upper Mission Creek/Big Morongo Canyon, Willow Hole, Thousand Palms, East Indio Hills, Joshua Tree National Park, Desert Tortoise and Linkage, Mecca Hills/Orocopia Mountains, and Santa Rosa and San Jacinto Mountains. The Draft CVMSHCP describes the types of Covered Activities relating to operation and maintenance that may occur in existing rights–of-way. For substation facilities, these activities include:

- Preventive maintenance, including electrical test of high voltage equipment, electric test of protection relays and communication system
- Corrective maintenance in case of an unscheduled event, shutdown, or emergency (repairs as necessary involving cranes, service trucks, pick-up trucks, etc.)
- Routine operational activities and temperature readings.

Additional Covered Activities are allowed for overhead/underground power and communication line facilities within Conservation Areas. These include:

- Patrol on existing access roads
- Maintenance of existing access roads
- Corrective maintenance/repair of transmission facilities as needed, using existing access roads.

The Draft CVMSHCP contains provisions for any public service provider, such as a utility company or public district that operates facilities and/or owns land within the CVMSHCP Area. These public service providers may request Take Authorization for their activities from the Coachella Valley Conservation Commission (CVCC) pursuant to the Permits as a Participating Special Entity. Such activities must be consistent with the terms and requirements of the Permits, the Plan, and the Implementing Agreement (IA). The process for submitting an application, review by CVCC and the Wildlife Agencies, and granting of Take Authorization is described in the IA for the CVMSHCP. Participating Special Entities shall

contribute to the CVMSHCP implementation through payment of a fee or other appropriate mechanism based on the type of proposed activity.

Northern and Eastern Colorado Desert Coordinated Management Plan. The Northern and Eastern Colorado (NECO) Desert Coordinated Management Plan is a landscape-scale, multi-agency planning effort that seeks to protect and conserve natural resources while simultaneously balancing human uses of the California portion of the Sonoran Desert ecosystem. The planning area, which is located in the southeastern CDCA, encompasses over 5 million acres and hosts 60 sensitive plant and animal species. BLM's CDCA Plan is being amended through six concurrent plan amendments, one of them being the NECO Plan. This multiple use planning effort also takes into account other uses of the desert, such as hiking, hunting, rock hounding, off-highway recreation, commercial mining, livestock grazing, and utility transmission. The NECO Plan provides reserve management for the desert tortoise, integrated ecosystem management for special status species and natural communities for all federal lands, and regional standards and guidelines for public land health for BLM lands. The Plan focuses on the conservation of species and habitats through the use of a system of large (50 percent larger than recommended in the desert tortoise recovery plan) DWMAs for the desert tortoise and wildlife habitat management areas (WHMAs) for other special status species and natural communities. DWMAs and WHMAs would replace all current special designations for species and habitats. DWMAs generally coincide with, but are smaller than, current tortoise critical habitat areas, and would be managed as ACECs and feature a 1 percent surface disturbance limit. The focus of WHMAs is on mitigation, habitat improvements, and federal ownership. The NECO Plan also addresses designation of routes of travel, land ownership pattern, access to resources for Economic/Social needs, bighorn sheep management, and burro and wild horse management.

Designated Critical Habitat.

- **Desert Tortoise.** In 1994, the U.S. Fish and Wildlife Service designated 6.4 million acres of Critical Habitat for the tortoise in California, Nevada, Utah, and Arizona. The proposed DPV2 ROW traverses through the Eastern Colorado Recovery Unit that was identified in the Desert Tortoise Recovery Plan. The Eastern Colorado Recovery Unit includes the Chuckwalla and Joshua Tree DWMAs. The NECO Plan designated DWMAs where desert tortoise recovery efforts are focused.
- **Coachella Valley Fringe-Toed Lizard.** The USFWS listed the Coachella Valley fringe-toed lizard as threatened, under the Endangered Species Act, in 1980. It is listed as an endangered species by the State of California. At the time the USFWS listed the lizard as threatened, about 12,000 acres of critical habitat were designated. This acreage includes areas with the highest lizard concentrations and a source of the "blow sand" habitat on which the lizard depends for its long-term survival. The 3,709-acre Coachella Valley National Wildlife Refuge was established by the USFWS in 1985 to protect the lizard. The Coachella Valley Preserve, cooperatively managed by TNC, BLM, California Department of Parks and Recreation, CDFG, USFWS, and the Center for Natural Lands Management, encompasses an additional 16,405 acres of fringe-toed lizard habitat adjacent to the refuge.

D.2.2 Environmental Setting for the Proposed Project – Devers to Harquahala

D.2.2.1 Harquahala to Kofa National Wildlife Refuge

Plant Communities and Sensitive Habitats

The beginning of the Proposed Project that would be located within the Harquahala Plain contains disturbed areas, such as agricultural lands that have been cleared of native vegetation. These areas were either planted with alfalfa (*Medicago* sp.) or were fallow during the time of field reconnaissance. The remaining areas of this segment of the Proposed Project contain species typical of upland and xeroriparian areas of the Creosote bush–White Bursage series of the Lower Colorado River Valley subdivision of the Sonoran Desert scrub biotic community (See Section D.2.1.1.1 for a description of the community). The dominant plant species observed in proposed ground-disturbing areas within the Harquahala to Kofa NWR segment of the Proposed Project during field reconnaissance include creosote bush, white bursage, foothill palo verde, ratany (*Krameria* sp.), plantain (*Plantago* sp.), and velvet mesquite (*P. velutina*).

Special Status Plant and Wildlife Species and Documented Sensitive Biological Resources

The Harquahala to Kofa NWR segment of the Proposed Project contains plant species that are protected under the Arizona Native Plant Law as regulated by the Arizona Department of Agriculture (ADA). Plant species that are protected under this law and were observed in proposed ground-disturbing areas within the Harquahala to Kofa NWR segment of the Proposed Project during field reconnaissance include: blue palo verde, foothill palo verde, velvet mesquite, desert ironwood, and ocotillo. Additionally, all cacti (saguaro, chollas, barrel, hedgehog, beavertail, prickly pear, desert Christmas, and nipple) located within the Proposed Project are designated as Salvage Restricted. Additional detail on this can be found in Section D.2.1.1.3.

Within the Harquahala to Kofa NWR segment of the Proposed Project, 11 protected species have a moderate or higher potential to occur within the alignment. This includes eight Sensitive status species as protected by the BLM and three WSCA species as protected by the AGFD. These species include the cheese-weed moth lacewing, common chuckwalla, Sonoran desert tortoise, banded Gila monster, desert rosy boa, osprey, western burrowing owl, California leaf-nosed bat, cave myotis, pocketed free-tailed bat, and big free-tailed bat. Migratory birds may also occur in the project area. These species are protected under the Migratory Bird Treaty Act. Big horn sheep are managed by the AGFD, BLM, and Kofa NWR and are expected to occur within the vicinity of the Harquahala to the Kofa NWR segment of the Proposed Project. Additional detail on these species can be found in Section D.2.1.1.3.

Special Habitat Management Areas Overview

The Proposed Project would traverse areas designated by BLM as Category II and Category III for the Sonoran desert tortoise. Areas where the Proposed Project would pass through Category II designated land within the Harquahala to Kofa NWR segment include approximately one mile in the Eagletail Mountains. Areas where the Proposed Project would pass through Category III designated land include approximately eight miles in the Big Horn Mountains. Additional detail on these can be found in Section D.2.1.1.4.

Harquahala Telecommunications Site

The proposed Harquahala Mountain facility would be located on BLM land, approximately seven miles north of the Harquahala to Kofa National Wildlife Refuge transmission line portion of the Proposed Project in the Harquahala Mountains. There is an existing telecommunications facility owned, maintained, and operated by the Central Arizona Water Control District (CAWCD) at this site. An existing 10-mile dirt road leads to Harquahala Mountain. A temporary construction area adjacent to the new facility would be established for vehicle parking and material storage. This area would be fenced and gated. It is estimated that the temporary construction area would occupy approximately one acre and the permanent facility would occupy approximately 0.5 acres.

Habitat in the project area is consistent with that described above for Sonroan desert scrub. At the proposed telecommunication site the area is characterized as Arizona Chaparral Series and supports populations of shrub live oak (*Q. turbinella*), bear grass (*Nolina microcarpa*), and yellow leaf silk tassel (*Garrya flavescens*). Non-native and native grasses are also present. One sensitive plant species protected under the Arizona Native Plant Law, straw topped cholla, has been documented at the Telecom site. This area is within the known range of big horn sheep.

D.2.2.2 Kofa National Wildlife Refuge

Plant Communities and Sensitive Habitats

The portion of the Proposed Project within the boundaries of the Kofa NWR contains species typical of upland and xeroriparian areas of Palo verde–Cactus–Mixed Scrub series of the Arizona Upland subdivision of the Sonoran Desert scrub biotic community. The dominant plant species observed in proposed ground-disturbing areas within the Kofa NWR segment of the Proposed Project during field reconnaissance include Creosote bush, foothill palo verde, saguaro (*Carnegia gigantea*), desert ironwood, catclaw acacia, buckhorn cholla (*O. acanthocarpa*), and mesquite. Additional detail concerning these plant communities can be found in Section D.2.1.1.1.

Special Status Plant and Wildlife Species and Documented Sensitive Biological Resources

The Kofa NWR segment of the Proposed Project contains plant species that are protected under the Arizona Native Plant Law as regulated by the ADA. Plant species that are protected under this law and were observed in proposed ground-disturbing areas within the Kofa NWR segment of the Proposed Project during field reconnaissance include blue palo verde, foothill palo verde, velvet mesquite, desert ironwood, and ocotillo. Additionally, all cacti (saguaro, chollas, barrel, hedgehog, beavertail, prickly pear, desert Christmas, and nipple) located within this segment of the Proposed Project are designated as Salvage Restricted. Additional detail on this can be found in Section D.2.1.1.3.

Within the Kofa NWR segment of the Proposed Project, 10 protected species, including eight Sensitive status species as protected by the BLM and two WSCA species as protected by the AGFD, have a moderate or higher potential to occur. These species include the cheese-weed moth lacewing, common chuckwalla, banded Gila monster, desert rosy boa, western burrowing owl, cave myotis, pocketed free-tailed bat, big free-tailed bat, Sonoran desert tortoise, and California leaf-nosed bat. Additional detail on these species can be found in Section D.2.1.1.3.

Additionally, migratory birds as protected under the Migratory Bird Treaty Act and bighorn sheep as managed by the AGFD, BLM, and Kofa NWR are all expected to occur within the vicinity of the Kofa NWR segment of the Proposed Project. Additional detail on these can be found in Section D.2.1.1.3.

Special Habitat Management Areas Overview

The Kofa NWR segment of the Proposed Project is located within and directly adjacent to the boundaries of the New Water Wilderness Area as designated and managed by the Kofa NWR and the BLM. The Proposed Project would traverse approximately 20 miles within the boundaries of the Kofa NWR, which is also within and directly adjacent to the boundaries of the New Water Mountains Wilderness Area. Additional detail on these can be found in Section D.2.1.1.4.

D.2.2.3 Kofa National Wildlife Refuge to Colorado River

Plant Communities and Sensitive Habitats

The Kofa NWR to the Colorado River segment of the Proposed Project contains species typical of upland and xeroriparian areas of the Creosote bush–White Bursage series of the Lower Colorado River Valley subdivision of the Sonoran Desert scrub biotic community. The portion of the segment in the Dome Rock Mountain represents an area within the transitional zone between the Lower Colorado River Valley subdivision and the Arizona Upland subdivision of the Sonoran Desert scrub biotic community. Additionally, the portion of the Proposed Project along the Colorado River and the Arizona–California border is located within the Sonoran Riparian Deciduous Woodland biotic community. The dominant plant species of the Creosote bush–White Bursage series observed in proposed ground-disturbing areas within the Kofa NWR to the Colorado River segment of the Proposed Project during field reconnaissance include Creosote bush, white bursage, foothill palo verde, ratany, plantain, and velvet mesquite. The dominant plant species of the portion of this segment in the transitional zone portions between the Lower Colorado River Valley and the Arizona Upland subdivisions observed in proposed ground-disturbing areas within the Kofa NWR to the Colorado River segment of the Proposed Project during field reconnaissance include creosote bush, foothill palo verde, saguaro, desert ironwood, catclaw acacia, and buckhorn cholla. The Sonoran Riparian Deciduous Woodland biotic community along the Colorado River in proposed ground-disturbing areas was dominated by saltcedar (*Tamarix* sp.); thus, this area has been invaded by the non-native saltcedar and does not have the characteristics of true Sonoran Riparian Deciduous Woodland, as defined by Brown (1994). Additional detail concerning these plant communities can be found in Section D.2.1.1.1.

Special Status Plant and Wildlife Species and Documented Sensitive Biological Resources

The Kofa NWR to Colorado River segment of the Proposed Project contains plant species that are protected under the Arizona Native Plant Law as regulated by the ADA. Plant species that are protected under this law and were observed in proposed ground-disturbing areas within this segment of the Proposed Project during field reconnaissance include blue palo verde, foothill palo verde, velvet mesquite, desert ironwood, agave, and ocotillo. Additionally, all cacti (saguaro, chollas, barrel, hedgehog, beavertail, prickly pear, desert Christmas, and nipple) located with the Proposed Project alignment are designated as Salvage Restricted. Additional detail on this can be found in Section D.2.1.1.3.

Within the Kofa NWR to Colorado River segment of the Proposed Project, 17 protected species have a moderate or higher potential to occur within the alignment. This includes two endangered species as protected by the USFWS, eight Sensitive status species as protected by the BLM, and seven WSCA

species as protected by the AGFD. These species include the razorback sucker, California brown pelican, cheese-weed moth lacewing, common chuckwalla, banded Gila monster, desert rosy boa, Mojave Fringed-toed lizard, western burrowing owl, Clark's grebe, snowy egret, great egret, osprey, California leaf-nosed bat, cave myotis, pocketed free-tailed bat, big free-tailed bat, and Sonoran desert tortoise. Additional detail on these species can be found in Section D.2.1.1.3.

Additionally, migratory birds as protected under the Migratory Bird Treaty Act and bighorn sheep as managed by the AGFD, BLM, and Kofa NWR are all expected to occur within the vicinity of the Kofa NWR to Colorado River segment of the Proposed Project. Additional detail on these species is presented in Section D.2.1.1.3.

Special Habitat Management Areas Overview

The Kofa NWR to Colorado River segment of the Proposed Project would cross through areas designated as Category II for the Sonoran desert tortoise. Areas where the Proposed Project would pass through Category II in the Kofa NWR to Colorado River segment include approximately 12 miles in the Dome Rock Mountains. Additional detail on this can be found in Section D.2.1.1.4.

D.2.2.4 Palo Verde Valley (Colorado River to Midpoint Substation)

As discussed in Section D.2.1, sensitive plant and wildlife surveys were conducted in California in 2005, which was a high rainfall year. The sensitive and listed plant and wildlife species that have been reported in the ROW, and those that have either a high or a moderate potential, as determined by CNDDB and CNPS searches and literature reviews, to occur within or adjacent to the ROW are discussed below. Those species that have a low potential or are not expected to occur in this segment of the ROW are not discussed in this section, but are presented in Appendix 7. Plant and wildlife species were assessed for their potential to occur within the project area based upon the criteria listed in Section D.2.1.1.3, under Threatened, Endangered, and Sensitive Plant Species.

Plant Communities and Sensitive Habitats

Plant communities in this segment include riparian habitat along the Colorado River and agricultural land throughout the Palo Verde Valley and City of Blythe. The riparian habitat in the proposed ROW west of the Colorado River in California is disturbed and dominated by honey mesquite and invasive salt cedar. Arroweed also occurs along the bank of the Colorado River within the ROW. Intact cottonwood and willow riparian occur along the Colorado River outside the ROW, although a few of these species are present within the proposed ROW. Local occurrences of emergent plant communities that are associated with isolate oxbows of the Colorado River, sloughs, and ponds are present on the California side of the Colorado River. However, there are no major emergent plant or marshland communities within one mile of the proposed location where the Proposed Project would cross the Colorado River.

The agricultural areas in this segment are generally located between MPs E102.3 and E112.6, and consist of scattered residences and fields that are crossed by irrigation canals. These agricultural areas are dominated by what appears to be row crops, hay, cotton, and some fallow fields. The irrigation canals are generally channelized with sparse to fairly dense vegetation along the edges. These vegetated areas tend to be dominated by non-native and weedy species of plants.

This segment transitions from agriculture to desert vegetation communities from MPs E112.6 through E112.8, and rises rapidly in elevation from approximately 250 feet to 325 feet amsl. The area at the base of the slope appears to support some water flow during storm events. The vegetation in this transition area consists primarily of Sonoran desert scrub, but larger shrubs, such as mesquite, also occur in this area. From MP 112.8 through to the proposed Midpoint Substation located at MP E113.8, the vegetation primarily consists of a sparse Sonoran desert scrub community.

Special Status Plant and Wildlife Species

As discussed in Section D.2.1, surveys for sensitive plants were conducted within this segment in 2005. The species with a high or moderate potential to occur are discussed below; however, none of these species were actually observed during the 2005 surveys. Additional details about the following species are presented in Table D.2-4 and D.2-5.

Plant Species

No State or federally listed plant species are known to occur in this segment of the Proposed Project. Three sensitive plant species have a high potential to occur in this segment, including Harwood's milkvetch, foxtail cactus, and Wiggins's cholla. The Harwood's milkvetch, a CNPS List 1B species, is known to occur in the desert scrub between the agricultural areas and the proposed Midpoint Substation, and was observed during surveys conducted in 2005 (Tetra Tech, 2005). The foxtail cactus and Wiggin's cholla are known to occur in desert scrub habitat, but are not expected to occur in the agricultural areas of this segment. However, foxtail cactus, a federal species of concern, has been documented west of this segment in similar desert scrub habitat. Wiggin's cholla, which is not a federal or State protected species, is known to occur south of the Proposed Project in Imperial County.

Three other sensitive plant species including angel trumpets, desert sand-parsley, and Las Animas colubrine, have a moderate potential to occur within this segment, and are known to occur in Sonoran desert scrub habitats. None of these plants are federal or State special status species, but are designated CNPS 2 species. These plant species are known to occur at various locations within this segment. See Table D.2-4 for additional information.

Wildlife Species

Fishes and Amphibians. One sensitive fish, razorback sucker (*Xyrauchen texanus*), and two sensitive amphibian species, Colorado River toad (*Bufo alvarius*), and Couch's spadefoot toad (*Scaphiopus couchii*), have a high potential to occur along the ROW in this segment. The razorback sucker, a State and federal endangered species and CDFG fully protected species, has a high potential to occur in this segment. Suitable aquatic habitat for this species is present both in the Colorado River and throughout various drainages in the Palo Verde Valley. Known sightings of this species have been recorded close to the location of where I-10 spans the Colorado River (CNDDB, 2005). The Colorado River toad, California special concern species, also has a high potential to occur in the Colorado River and the drainages and channels in this segment. Historical sightings of this species have been documented in the vicinity of the Cities of Blythe, California and Ehrenberg, Arizona. Suitable habitat exists within the Palo Verde Valley for Couch's spadefoot toad, a California special concern species and BLM sensitive species, and several observations have been made of this species within five miles of the project ROW (CNDDB, 2005).

Reptiles. The Mojave fringe-toed lizard, a California special concern species and BLM sensitive species, has a high potential to occur in this segment, but only in the desert scrub habitat located between the agricultural areas and the proposed Midpoint Substation. This species was observed in areas north

and northeast of the ROW (Tetra Tech, 2005). Two other reptile species, including the desert tortoise and Colorado Desert fringe-toed lizard, have a moderate potential to occur along the proposed ROW. Desert tortoise, which is a federally and State threatened species is known to occur in areas west of the proposed Midpoint Substation, but has not been documented in this segment and is not expected to occur in the agricultural areas in the Palo Verde Valley. The Colorado Desert fringe-toed lizard, a California special concern species and BLM sensitive species, also has not been documented in this segment during previous surveys, most likely because well-developed sand dunes are not present. However, the habitat located west of the agricultural area, where the soils are sandy and the desert scrub is sparse, would be considered potentially suitable for this species.

Birds. Several federal and State listed, as well as sensitive bird species, are known to occur or have the potential to occur within this segment. The burrowing owl, a California special concern species and BLM sensitive species, was the only sensitive bird species observed in this segment. Several burrowing owls were sighted along the edges of the fields and irrigation canals near the ROW during surveys (ECORP Consulting, Inc, 2005). This species may winter and/or nest in the agricultural areas between the Colorado River and the proposed Midpoint Substation.

Thirteen listed or sensitive bird species have a high potential to occur along the ROW in this segment. The six listed bird species include:

- California black rail
- Yuma clapper rail
- western yellow-billed cuckoo
- elf owl
- Swainson's hawk
- Gila woodpecker
- least Bell's vireo

The California black rail and Yuma clapper rail are both known to utilize freshwater marsh areas along the Colorado River, and have been documented close to the Proposed Project. The habitat located within the ROW along the Colorado River is not suitable because it does not include the cattails and bulrushes that constitute the typical habitat utilized by these species. However, the irrigation canals in the agricultural areas to the west that contain dense patches of cattails and bulrushes could potentially support these species. The western yellow-billed cuckoo, elf owl, and Gila woodpecker all have high potential for occurrence in certain riparian habitats located outside of the ROW along the Colorado River, including riparian habitat associated with large rivers, cottonwood-willow and mesquite riparian zones, and desert riparian habitats, respectively. The least Bell's vireo, which has been documented less than five miles from the Proposed Project, also nests in riparian areas. However, similar to the two rail species above, the riparian habitat along the Colorado River within the ROW is not suitable nesting habitat for the least Bell's vireo. The irrigation canals within the agricultural areas also do not appear to be suitable nesting habitat because there is no dense riparian vegetation.

The seven sensitive bird species that have a high potential to occur include:

- ferruginous hawk
- Bendire's thrasher
- Le Conte's thrasher
- vermillion flycatcher
- Crissal thrasher
- Sonoran yellow warbler
- summer tanager

The ferruginous hawk is known to winter in the desert areas of southern California. This species would not be expected to nest within this segment because of the lack of suitable nesting areas; however it would be expected to forage in the area. Bendire's thrasher has been documented less than five miles from the proposed ROW, even though the only suitable habitat for this species exists west of the agri-

cultural areas. The desert scrub areas in this segment provide suitable habitat for Le Conte's thrasher, which also has been documented close to the Proposed Project. The vermillion flycatcher is known to nest in desert riparian habitat near agricultural areas, and suitable habitat exists within this segment in areas adjacent to the ROW near the Colorado River. The Crissal thrasher inhabits desert wash and desert riparian habitat, and has limited suitable habitat located adjacent to the ROW along the Colorado River. The Sonoran yellow warbler and summer tanger have high potential to occur in the riparian habitat along the Colorado River outside of the proposed ROW.

The following three listed and four sensitive species of birds have a moderate potential to occur along the ROW:

- peregrine falcon
- southwestern willow flycatcher
- willow flycatcher
- white-faced ibis
- mountain plover
- brown-crested flycatcher
- yellow-breasted chat

The peregrine falcon may forage within this segment, but suitable nesting habitat does not occur within this portion of the Proposed Project. The willow flycatcher and southwestern willow flycatcher are typically found in riparian habitats; however the habitat along the Colorado River within the ROW would not be suitable nesting habitat. Suitable nesting habitat does, however, occur outside of the proposed ROW. The white-faced ibis inhabits marsh areas and shallow water, and may occur along the fringes of the Colorado River or in the agricultural canals where cattails have created dense thickets. The brown-crested flycatcher and yellow-breasted chat both utilize desert riparian habitat along the Colorado River, but the habitat within the ROW would not be suitable nesting habitat. The mountain plover frequents cropland and desert habitats, and may occur within the ROW along this entire segment.

Raptors are known to nest along this portion of the Proposed Project. This species has been documented in the project area and is known to nest in the existing towers located along the DPV1 ROW southwest of the Midpoint Substation between the agricultural areas and the proposed Midpoint Substation (Tetra Tech, 2005).

Mammals. The following five species of bats and one mammal species have a high potential to occur in or adjacent to the proposed ROW:

- Townsend's big-eared bat
- cave myotis
- California leaf-nosed bat
- Arizona myotis
- Yuma myotis
- American badger

These bats are typically associated with desert habitats, cliffs or rock outcrops, and areas where water is available. These species would be expected to forage in this portion of the Proposed Project, but suitable roosting areas are likely limited due to the lack of rocky outcrops. The badger is associated with open desert habitats and could potentially occur in the desert scrub located west of the agricultural areas.

The following six species of bats and three mammal species have a moderate potential to occur in this segment of the Proposed Project:

- pallid bat
- western mastiff bat
- pocketed free-tailed bat
- big free-tailed bat
- fringed myotis
- western yellow bat
- pallid San Diego pocket mouse
- Colorado River cotton rat

These bat species have a high potential to occur due to the presence of suitable foraging habitat. For a majority of these bat and mammal species, the most suitable habitat in this segment occurs in the western portion where desert scrub habitat is present. However, several of the bats would be expected to forage in the agricultural areas, as would the Colorado River cotton rat.

Special Habitat Management Areas Overview

The Palo Verde Valley portion of the transmission line route traverses both the CDCA and NECO Plan area. This segment is primarily used for agriculture and it does not contain any management areas identified in these plans that are directed toward the preservation of species or habitats, or the management of wild horses and burros. This segment of the Proposed Project does not traverse critical habitat for the desert tortoise.

D.2.2.5 Midpoint Substation

This section of the Proposed Project contains the same species identified below in Section D.2.2.6, Midpoint Substation to Cactus City Rest Area.

D.2.2.6 Midpoint Substation to Cactus City Rest Area

Plant Communities and Sensitive Habitats

Plant communities within this segment of the Proposed Project primarily consist of creosote bush scrub habitat and dry desert washes dominated by the Sonoran desert scrub community. The spacing of the desert scrub is sparse, but the density of shrubs increases as the project ROW approaches the base of the hills and mountains. The composition of the vegetation community also varies across this segment, with some areas increasing in plant density and/or diversity, as the ROW progresses westward. White bursage becomes more common in upper bajadas, whereas scattered desert dunes occur near MP E116 and become more common between MPs E120.4 and E123. This segment is also marked by numerous desert washes that support desert scrub plant species and larger shrubs, such as honey mesquite, blue palo verde, and ironwood.

The Chuckwalla and Cottonwood Mountains, located adjacent to the proposed ROW, support scattered occurrences of Desert Fan Palm Oasis Woodland, a sensitive plant community. Several occurrences of this community are located within 10 miles of the ROW; however no occurrences actually exist within the ROW.

Special Status Plant and Wildlife Species

As discussed in Section D.2.1, surveys for sensitive plants were conducted within this segment in 2005. The species with a high or moderate potential to occur, which are discussed below, were not observed during the 2005 surveys. Additional details about the following species are presented in Table D.2-4 and D.2-5.

Plant Species

Two sensitive species, including Harwood's milkvetch and foxtail cactus were observed during surveys of the project area. Harwood's milkvetch, a CNPS List 1B species, was found to be relatively common during plant surveys conducted in 2005, and was found in high numbers between the proposed Mid-

point Substation and approximately MP E119, and in lower numbers between Wiley's Well Road and Graham Pass Road (Tetra Tech, 2005). The foxtail cactus, a federal species of concern and also designated as a CNPS List 4 species, was observed during surveys in 2003 and 2005 between MP E186 and the Cactus City Rest Area (Environmental Planning Group, 2003 and 2005). This species is also known to occur from near Alligator Rock west to near Red Cloud Mine Road.

Nine sensitive plant species have a high potential to occur in this segment, including:

- foxtail cactus
- Orocopia sage
- desert sand-parsley
- ayenia
- crucifixion thorn
- glandular ditaxis
- California ditaxis
- desert spike-moss
- Cove's cassia

Foxtail cactus, a federal species of concern, is known to occur approximately between MPs E156 and E164, while Orocopia sage, designated by CNPS as a List 1B species, is known to occur three miles southeast of Desert Center between MPs E149 and E155. The remaining seven sensitive plant species are designated by the CNPS as either List 2 or 3 species. See Table D.2-4 for more detail about these species and the known occurrences in the project area.

Six sensitive plant species have a moderate potential to occur along this segment, including:

- angel trumpets
- Abram's spurge
- Las Animas colubrine
- Spearleaf
- Latimer's woodland gilia
- Mecca-aster

Two species, the Latimer's woodland gilia and Mecca-aster, have been designated by CNPS as List 1B species. Latimer's woodland gilia is known to occur along Box Canyon Road between MPs E180 and E186. Mecca aster has a moderate potential to occur along the northern foothills of the Orocopia Mountains and Mecca Hills because suitable Sonoran desert scrub habitat exists in these areas. The remaining four plant species are CNPS List 2 species, and have a moderate potential to occur within this segment due to the existence of suitable habitat and elevation requirements. See Table D.2-4 for more detail about these species and the known occurrences in the project area.

Wildlife Species

Fishes and Amphibians. Sensitive fishes would not be expected to occur in this segment of the Proposed Project due to limited availability of water resources. Sensitive amphibians have a low potential to occur and are presented in more detail in Appendix 7.

Reptiles. One listed and two sensitive species of reptile have been documented within this segment. The desert tortoise is listed as a federal and State threatened species. Live tortoises as well as signs, including scattered burrows, carcasses, and scat, were found in various locations along the ROW. There are numerous desert washes present between MP E151 and MP E188.2 that makes this area more diverse than those areas farther to the east, and likely contributes to the higher numbers of tortoises in this portion of the segment. In addition, the Mojave fringe-toed lizard and Colorado Desert fringe-toed lizard, both of which are California special concern species and BLM sensitive species, have been reported within this segment. The Mojave fringe-toed lizard was found in areas with sandy soils and in the well-developed sand dunes that occur along the ROW, including from the proposed Midpoint Substation to approximately MP E126 (Tetra Tech, 2005). The Colorado Desert fringe-toed lizard was observed west of Wiley's Well Road in 2003 (Environmental Planning Group, 2003).

Three BLM sensitive reptile species, including the banded gila monster and flat-tailed horned lizard, which are also California special concern species, and rosy boa (*Charina trivirgata*), have a moderate potential to occur along the ROW because the habitat is suitable. There are no reported occurrences of these species within five miles of the ROW, nor did previous surveys document their presence along the ROW.

Birds. Three California special concern species of birds, including Le Conte's Thrasher, which is also a BLM sensitive species, loggerhead shrike, and prairie falcon, have been documented in desert scrub habitat within this segment (Tetra Tech and Environmental Planning Group, 2005). Le Conte's thrasher was observed at several locations between the proposed Midpoint Substation and Wiley's Well Road. The loggerhead shrike was reported at numerous locations throughout this segment. The prairie falcon was sighted just south of the Cottonwood Mountains and north of the Mecca Hills.

An additional three California special concern bird species, including ferruginous hawk and Bendire's thrasher, which are also BLM sensitive species, and Crissal thrasher, have a high potential to occur in or adjacent to the ROW. The ferruginous hawk would be expected to winter and forage in the proposed ROW. Both thrasher species frequent desert habitats and their ranges overlap the ROW within this segment.

Two sensitive bird species, both of which are California special concern species, have a moderate potential to occur along this segment. They include mountain plover, which is known to frequent desert habitats, and vermillion flycatcher, which may be found in desert wash habitat.

In 2005, 13 red-tailed hawk nests were reported on existing towers in the ROW (Tetra Tech, 2005). In addition, four locations of raptor nests of unknown species were observed, and 28 additional locations of stick nests of unknown species were documented (Tetra Tech, 2005).

Mammals. Three California special concern species of bats, including pallid bat, western mastiff bat, and pocketed free-tailed bat, have a high potential to occur along the proposed ROW. The pallid bat and western mastiff bat are also BLM sensitive species. All of these bat species may roost in the caves and rock crevices in the hills and mountains adjacent to the ROW, and they may forage in the desert scrub and desert washes. In addition, the San Diego pocket mouse, a California special concern species, may also occur in the desert scrub and desert washes in this segment.

The following seven species of sensitive bats have a moderate potential to occur along the ROW:

- Townsend's big-eared bat
- spotted bat
- cave myotis
- California leaf-nosed bat
- Arizona myotis
- big free-tailed bat
- fringed myotis

The desert scrub and desert washes within this segment represent suitable foraging habitat for these species, and the surrounding hills and mountains likely contain suitable roosting habitat. These species have not been reported within five miles of the ROW, but the habitat within this segment is considered suitable.

The Palm Springs round-tailed ground squirrel, a California special concern species, may potentially occur in the far western portion of this segment. The American badger, a California special concern species, also has a moderate potential to occur because suitable habitat is present.

Special Habitat Management Areas Overview

This segment of the Proposed Project traverses areas covered by both the CDCA and NECO Plans. In addition, the Draft CVMSHCP addresses the portion of the route west of the community of Desert Center to the Cactus City Rest Area. Management areas identified in these plans and other areas designated as Reserves, Natural Areas, Conservation Areas, or Critical Habitat located within or adjacent to this segment are described below.

Chocolate/Mule Mountains Herd Management Area

The Chocolate/Mule Mountains Herd Management Area (HMA) is located to the south-southwest and west of the City of Blythe, and generally encompasses the portions of the Mule Mountains and Little Chuckwalla Mountains that lie west of the proposed Midpoint Substation. The proposed ROW runs just north of the Chocolate/Mule Mountains HMA.

Chuckwalla Valley Dune Thicket ACEC

The Chuckwalla Valley Dune Thicket ACEC is located just west of Wiley's Well Road between MPs 124.9 and 126.2. The proposed ROW bisects the center of this ACEC. Five existing DPV1 towers appear to be within the boundaries of this ACEC, and five proposed DPV2 tower may fall within this ACEC.

Chuckwalla DWMA ACEC

The Chuckwalla DWMA ACEC encompasses the Chuckwalla Mountains and portions of the Chuckwalla Valley and Orocopia Mountains. This DWMA encompasses the areas located south of I-10 from Wiley's Well Road and the Chuckwalla Valley Dune Thicket ACEC to near the Cactus City Rest Area. In addition, a portion of the DWMA in this segment lies north of I-10 from just west of the community of Desert Center to near the Cactus City Rest Area. The existing DPV1 transmission line and the route of the Proposed Project both traverse through portions of this DWMA.

Eagle Mountains HMP

The Eagle Mountains are located just west of the community of Desert Center and north of I-10, from approximately MP E160 to MP E169.5. HMPs prescribe management for species and habitats, but primarily focus on the management actions for burro deer and bighorn sheep. An HMP has yet to be developed for this area. The Eagle Mountains were identified as bighorn sheep habitat in the CDCA.

McCoy Wash

McCoy Wash is located in the McCoy Mountains are located north of I-10 and northwest of the City of Blythe, approximately three to six miles north of the route of the Proposed Project (between MPs E107.2 to E124.7). This area was identified as an HMP in the CDCA Plan.

Orocopia Mountains and Chuckwalla Mountains Native Ungulate HMPs

The Orocopia and Chuckwalla Mountains Native Ungulate HMPs, which were identified in the CDCA Plan, cover the portions of the Chuckwalla Mountains and Orocopia Mountains between the Little Chuckwalla Mountains to near the Cactus City Rest Area (MPs E138 to E188.2). A majority of these areas were incorporated into the Chuckwalla DWMA as part of the NECO Plan, and are managed for the bighorn sheep.

Mecca Hills

The Mecca Hills, which have been identified as a Riverside County Natural Area, are located south of I-10 and the Cactus City Rest Area, between approximately MPs E185 to E188.2. The area is considered unique for its geological features, but bighorn sheep are also known to occur in the area.

Draft Coachella Valley MSHCP

The area within this segment that is addressed by the Draft CVMSHCP extends from just west of the community of Desert Center (at MP E155.8) to the Cactus City Rest Area. This area includes three Conservation Areas, including the Mecca Hills/Orocopia Mountains, Desert Tortoise and Linkage, and Joshua Tree National Park, that have been proposed under the Draft CVMSHCP.

The existing DPV1 transmission line and the Proposed Project are both located within the proposed Desert Tortoise and Linkage Conservation Area, which is located between approximately MPs E154 and E197). This Conservation Area consists of 90,000 acres, and encompasses most of the lands between the Mecca Hills, Orocopia Mountains Wildernesses, and Joshua Tree National Park in the eastern portion of the CVMSHCP area. Core Habitat is present for the desert tortoise and the habitat for the Mecca aster and Orocopia sage is contiguous with that in the Mecca Hills/Orocopia Mountains Conservation Area located to the south. This area contains Other Conserved Habitat for Le Conte's thrasher, desert tortoise, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse.

The Mecca Hills/Orocopia Mountains Conservation Area is located south of the Proposed Project from approximately MPs E154 to E197. This Conservation Area contains 112,480 acres and consists predominantly of the Mecca Hills Wilderness and the Orocopia Mountains Wilderness. Core Habitat for both the Mecca aster and Orocopia sage occurs in this Conservation Area. The desert tortoise habitat in this area, a portion of which has been designated as Critical Habitat, is contiguous with the habitat in the Desert Tortoise and Linkage Conservation Area located immediately to the north. This Conservation Area contains suitable migration and breeding habitat for riparian bird species covered by the CVMSHCP. This area contains Other Conserved Habitat for Le Conte's thrasher, Coachella Valley round-tailed ground squirrel, Palm Springs pocket mouse, and southern yellow bat.

The Joshua Tree National Park Conservation Area contains 161,290 acres, and is located from less than one mile to almost three miles north of I-10 from MPs E200 to E211. It encompasses those parts of Joshua Tree National Park that provide habitat for the desert tortoise (a portion of which has been designated as Critical Habitat), riparian bird species, southern yellow bat, and potential habitat for the gray vireo, and includes most of the National Park land in the CVMSHCP area. A portion of this Conservation Area is also in the NECO Plan Area. This Conservation Area provides Core Habitat for the desert tortoise, contains suitable migration and breeding habitat for riparian bird species covered by the CVMSHCP, and contains Other Conserved Habitat for the southern yellow bat. Potential habitat for the gray vireo and Other Conserved Habitat for Coachella Valley milkvetch, desert tortoise, Le Conte's thrasher, Coachella Valley round-tailed ground squirrel and Palm Springs pocket mouse occur in this area.

Joshua Tree National Park

Joshua Tree National Park is located north of I-10 and encompasses portions of the Eagle, Cottonwood, and Little San Bernardino Mountains. The boundary of the Park ranges from less than one mile to three miles north of the existing DPV1 transmission lines and the Proposed Project and/or I-10 between MPs E159 and E211. Desert tortoise and bighorn sheep are actively managed within the Park under the direction of the GMP.

Desert Tortoise Critical Habitat

Designated Critical Habitat for the desert tortoise extends from just east of Wiley's Well Road (at MP E121.7) to just east of the Cactus City Rest Area. The existing DPV1 transmission line and the Proposed Project traverse Critical Habitat from MPs E121.7 to E188.

D.2.2.7 Cactus City Rest Area to Devers Substation

As discussed in Section D.2.1, sensitive plant surveys were conducted in this segment of the ROW in 2005 during a high rainfall year when growth conditions for sensitive plants were good. Those species that were observed during the 2005 surveys, as well as the species with a high or moderate potential to occur are described below. Over 20 plants were documented along the proposed route between MPs E188 and E228 (Greystone, 2005). However, the species with a high or moderate potential to occur were not observed during the 2005 surveys. Additional details about the following species are presented in Table D.2-4 and D.2-5.

Plant Communities and Sensitive Habitats

The vegetation communities in Cactus City Rest Area to Devers Substation segment of the Proposed Project occur as a mosaic of undisturbed habitats, agricultural lands, and developed areas. Much of the Coachella Valley between the City of Indio and the Devers Substation has been developed or is in the process of being developed. This development has removed native plant communities and altered the transport of aeolian (blow) sands across portions of the valley. The dominant vegetation community across much of this segment is Sonoran creosote bush scrub, but the Proposed Project also would cross numerous desert washes containing dry desert wash woodlands. Along the base of the Indio Hills, the Proposed Project traverses patches of stabilized desert sand fields, mesquite hummocks, stabilized sand fields, stabilized desert dunes, ephemeral sand fields, and Sonoran mixed woody and succulent scrub that are interspersed with areas of creosote bush scrub. Most of the proposed ROW between the City of Indio and Devers Substation are considered important sand source and transport areas. A desert fan palm oasis is present north of the Proposed Project near Thousand Palms Canyon. Between MPs E205.5 and E206.4 and in areas just east of Devers Substation, the Proposed Project would traverse areas that are either developed or disturbed by human activities. Agricultural areas are present between MPs E208.1 and E208.7.

Three sensitive plant communities occur in areas within or in the vicinity of the proposed ROW; however none of these communities would be traversed by this segment of the Proposed Project. The Indio Hills support approximately 20 locations of the Desert Fan Palm Oasis Woodland communities (CNDDB, 2005). These communities generally occur along the San Andreas Fault as it passes along the southern border of the Indio Hills; however this community can also be found in some drainages and seeps occurring throughout the Indio Hills. The other two sensitive communities, mesquite bosque and Mojave Riparian Forest, are both threatened and located northwest of the Devers Substation. The mesquite bosque community occurs approximately six miles north of the Highway 62 and I-10 interchange, and the Mojave Riparian Forest community occurs approximately nine miles north of interchange (CNDDB, 2005).

Special Status Plant and Wildlife Species

Plant Species

One listed plant species and eight sensitive plant species, including the following species, have a high potential to occur along this segment of the ROW:

- Coachella Valley milkvetch
- flat-seeded spurge
- little San Bernardino Mountains gilia
- creamy blazing star
- foxtail cactus
- Arizona spurge
- California ditaxis
- cliff spurge
- slender woolly-heads

Coachella Valley milkvetch, a federally endangered and CNPS List 1B species, was observed between Cactus City Rest Area and the Devers Substation in 2005 (Environmental Planning Group and Greystone, 2005). There is a high potential that this species may occur at other locations along this segment, and because it typically grows in areas that have been disturbed, it is likely that the Coachella Valley milkvetch could appear in other areas following future disturbances. Flat-seeded spurge, little San Bernardino Mountains gilia, and creamy blazing star are all designated as CNPS List 1B species, and foxtail cactus is a federal special concern species. Flat-seeded spurge has a high potential to occur in the dune fields between MPs E193 and E200. Foxtail cactus has been documented east of Cactus City Rest Area in similar habitat to that occurring in this segment; however it was not observed in this segment in 2005. The other four sensitive plant species have been included on either List 2 or 3 by the CNPS. See Table D.2-4 for more detail about these species and the known occurrences in the project area.

The following seven sensitive plants have a moderate potential to occur in this segment:

- chaparral sand-verbena
- angel trumpets
- desert sand-parsley
- Parish's brittlescale
- Latimer's woodland gilia
- purple stemodia
- Mecca-aster

None of these species were observed in this segment during the 2005 sensitive plant surveys. Four of these plants, including chaparral san-verbena, Parish's brittlescale, Latimer's woodland gilia, and Mecca aster, are CNPS List 1B species and are known to occur between approximately five to seven miles from the Proposed Project. Although Parish's brittlescale is also known to occur within a mile of the City of Palm Springs along Highway 111 it was not observed during the surveys. Mecca aster has a moderate potential to occur along the northern foothills of the Orocopia mountains and Mecca Hills because suitable Sonoran desert scrub habitat is present. The other three sensitive plants are designated as List 2 species by the CNPS.

Wildlife Species

Invertebrates. The Coachella Valley giant sand-treader cricket and Coachella Valley Jerusalem cricket both have high potential to occur in this segment of the ROW. Neither species is considered a special status species; however both are proposed covered species under the CVMSHCP. Both of these crickets utilize active sand dunes and ephemeral sand fields, which are scattered throughout this segment from near Dillon Road (MP E200) to the Devers Substation.

Fishes and Amphibians. This segment of the ROW is not expected to include any sensitive species of fishes due to the lack of suitable aquatic habitat. However, the arroyo toad, a federally endangered species and California special concern species, has moderate potential for occurrence. The arroyo toad is known to occur in desert riparian and desert wash habitat but this species has very specialized habitat requirements. The habitat requirements include low turbidity, absence of predatory fishes, exposed side-bar pool complexes, and stable sandy terraces with dampened banks possessing some emergent vegetation or algal mats. Suitable habitat for the arroyo toad is not located in this segment, but it has been reported in drainages to the west of this segment.

Reptiles. Two listed species of reptiles, the desert tortoise and Coachella Valley fringe-toed lizard, are present in this segment. The desert tortoise, a federal and State listed threatened species, was observed from near the Cactus City Rest Area (MP E188.2) west to approximately MP E196, and near MP E198.6 (Environmental Planning Group, 2003 and Alice Karl and Associates, 2005). Although this latter location appears to be isolated because it is greater than 2.5 miles from the other documented locations (Alice Karl and Associates, 2005). The Coachella Valley fringe-toed lizard, a federally threatened and State endangered species, is present within the Coachella Valley Preserve, and it is likely present in other suitable habitat areas that occur within and adjacent to the ROW. Surveys identified suitable blow sand habitat for Coachella Valley fringe-toed lizard at various locations along the ROW, including between MPs E219.2 and E220 and MPs E224.5 and E225.2 (Greystone, 2005).

Four sensitive reptile species, including three lizards, the flat-tailed horned lizard, Mojave fringe-toed lizard, rosy boa, and one snake, the northern red-diamond rattlesnake, have a high potential to occur in this segment. These species are all California special concern species, except the rosy boa, which is a BLM sensitive species. The flat-tailed horned lizard and the Mojave Fringe-toedlizard are also both BLM sensitive species. Flat-tailed horned lizard has a high potential to occur in fine sand habitat, and the Mojave fringe-toed lizard in sandy soils near the eastern portion of this segment, especially east of the Cactus City Rest Area. The rosy boa likely occurs in the rockier areas within this segment, while the northern red-diamond rattlesnake is most likely to occur in the westernmost portion of this segment. The two-striped garter snake has been reported within 5 miles west of the Devers Substation. Suitable habitat for this species is not present within the ROW between the Cactus City Rest Area and Devers Substation.

Birds. Two California special concern species of birds, the burrowing owl and California horned lark, have been documented in this segment. Four known locations for burrowing owl, which is also a BLM sensitive species, have been documented in the proposed Willow Hole Conservation Area (Coachella Valley Mountains Conservancy, 2004). This species likely occurs in other suitable habitat areas within this segment. The California horned lark was documented within the Coachella Valley Preserve in 2003, but it typically inhabits grasslands and open habitats so it may potentially occur along most of this segment (Environmental Planning Group, 2003).

Three sensitive bird species have high potential to occur within this segment. These species, all of which are California special concern and BLM sensitive species, include golden eagle, ferruginous hawk, and Le Conte's thrasher. The golden eagle, also a CDFG fully protected species, likely forages within and adjacent to the ROW, and it may nest in the rocky areas located adjacent to the ROW. The ferruginous hawk likely does not nest within or adjacent to the ROW, but it likely forages in this area. Le Conte's thrasher has a high potential for occurrence in those portions of the ROW that support desert scrub habitat.

Two California special concern bird species, mountain plover and loggerhead shrike, have a moderate potential to occur within this segment. The desert scrub habitat in this portion of the ROW is considered potential habitat for the mountain plover, while the desert scrub habitat between Cactus City Rest Area and Devers Substation is suitable for the loggerhead shrike.

The biological surveys conducted during 2003 reported numerous stick nests on existing tower structures between the Cactus City Rest Area and Devers Substation. The most common inhabitants of nests on transmission towers are ravens or red-tailed hawks; however, it is unknown if one of these nests belonged to individuals of one of these species.

Mammals. Two California special concern mammal species, Palm Springs round-tailed ground squirrel and Palm Springs pocket mouse, have a high potential to occur within this segment. The Palm Springs round-tailed ground squirrel, also a federal candidate species, is known to occur north of I-10 in the vicinity of the proposed route along Dillon Road, and in the vicinity of Jefferson Street northwest of the City of Indio (Environmental Planning Group, December 2003). Other populations are scattered around the valley. The Palm Springs pocket mouse is known from several dozen locations throughout the Coachella Valley. Suitable habitat for this subspecies occurs along the ROW from the City of Coachella, continuously to the Devers Substation (Environmental Planning Group, 2003).

Twelve sensitive species, including eight bat species and four mammal species, have a moderate potential to occur along this segment of the ROW, including:

- pallid bat
- Townsend's big-eared bat
- spotted bat
- western mastiff bat
- California leaf-nosed bat
- pocketed free-tailed bat
- big free-tailed bat
- fringed myotis
- San Diego black-tailed jackrabbit
- pallid San Diego pocket mouse
- Los Angeles pocket mouse
- American badger

All bats, except for the fringed myotis, which is a BLM sensitive species, are California special concern species. The pallid bat, Townsend's big-eared bat, spotted bat, and western mastiff bat are also BLM sensitive species. The desert scrub and desert washes represent suitable foraging habitat for the bat species, and the surrounding hills and mountains likely contain suitable roosting habitat. Although these eight bat species have not been reported within five miles of this segment, the habitat is considered suitable. All four mammals are California special concern species, and are typically found in desert scrub habitats. Most likely these species occur in the undisturbed portions of this segment.

Special Habitat Management Areas Overview

The portion of the proposed route between the Cactus City Rest Area and Devers Substation lies within the areas covered by the CDCA and NECO Plans, as well as the Draft CVMSHCP. Management areas identified in these plans and other areas designated as Reserves, Natural Areas, or Critical Habitat located within or adjacent to this segment are described below.

CDCA Plan. The management areas identified in the CDCA Plan include the HMP for CVFTL and the Coachella Valley Preserve ACEC, which is discussed below and under the Draft CVMSHCP Thousand Palms Conservation Area. The HMP for CVFTL encompassed a checkerboard pattern of BLM lands located north of I-10 between MPs E209.3 to E215. The HMP was directed at the protection and management of the blow sands areas and known habitat for the CVFTL that were present on BLM lands. Much of this area has been incorporated into the Coachella Valley Preserve, which includes portions of the Willow Hole, Edom Hill, and Thousand Palms Conservation Areas.

Coachella Valley Preserve. The Proposed Project would traverse the Coachella Valley Preserve between MPs E209.3 and E215. As described under the Thousand Palms Conservation Area below, the Thousand Palms portion of the Preserve is located in this Conservation Area.

Draft Coachella Valley MSHCP. The area within this segment that is covered by the Draft CVMSHCP extends from the Cactus City Rest Area (MP 188.2) to Devers Substation (MP E228). The proposed Conservation Areas that are located within or adjacent to this segment include East Indio Hills, Indio Hills Palms, Thousand Palms, Edom Hill, and Willow Hole. These Conservation Areas are described below.

The East Indio Hills Conservation Area consists of 4,230 acres, and includes portions of the Indio Hills east of the Indio Hills Palms Conservation Area and the alluvial fan area between the toe of the slope on the south side of the hills and the flood control berm north of the Coachella Canal. The portion of this Conservation Area located east of Dillon Road is also in the NECO Plan Area. This Conservation Area provides Core Habitat for the Mecca aster and contains Other Conserved Habitat for Coachella Valley giant sand-treader cricket, Coachella Valley fringe-toed lizard, desert tortoise, flat-tailed horned lizard, crissal thrasher, Le Conte's thrasher, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse. In addition, this area contains suitable migration and breeding habitat for riparian bird species. The southern boundary of this Conservation Area borders the northern boundaries of the Cities of Coachella and Indio. MP E198.8 to E208.4 of the Proposed Project would traverse the southern portion of this Conservation Area. The native habitats present in and adjacent to the proposed ROW include Sonoran creosote bush scrub, Sonoran mixed woody and succulent scrub, mesquite hummocks, stabilized shielded sand fields, stabilized desert sand fields, active desert dunes, desert saltbush scrub, and desert dry wash woodland.

The Indio Hills Palms Conservation Area consists of 6,230 acres, and includes portions of the Indio Hills east of the existing CVFTL Preserve, as well as desert fan palm oases and mesquite hummock areas along the base of the Indio Hills that are associated with the San Andreas Fault. It is bounded on the west and northwest by the Thousand Palms Conservation Area and on the south and southeast by the East Indio Hills Conservation Area. The southern boundary of this Conservation Area lies approximately three-quarters of a mile north of the borders of the City of Indio between MPs E202.5 and E207.4. The Proposed Project would traverse this Conservation Area between MPs E203.8 and E207.4. This Conservation Area also contains Other Conserved Habitat for crissal thrasher, Le Conte's thrasher, Coachella Valley round-tailed ground squirrel, Palm Springs pocket mouse, and southern yellow bat. The area also contains suitable migration and breeding habitat for all riparian species covered by the Draft CVMSHCP. The native habitats present in and adjacent to the ROW include Sonoran creosote bush scrub, desert fan palm oasis woodland, Sonoran mixed woody and succulent scrub, mesquite hummocks, and desert dry wash woodland.

The Thousand Palms Conservation Area (25,890 acres) includes the existing CVFTL Preserve and the sand source/transport area to the west of it. Several hundred acres immediately east of the existing preserve, below Pushawalla Canyon, are also included in this Conservation Area as additional habitat for some of the species found on the preserve. The southeastern portion of this Conservation Area is located within a half mile north of the I-10 freeway near MP E211 and the Conservation Area generally lies between MPs E207.4 and E213.3. The Proposed Project would traverse this Conservation Area between MPs E209.5 and E213.3. This Conservation Area constitutes the largest un-fragmented habitat area on the Coachella Valley floor. Core Habitat for the Coachella Valley milkvetch, Coachella Valley giant sand-treader cricket (easternmost viable populations for both of these species), Coachella Valley fringe-toed lizard, flat-tailed horned lizard, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse, and Mecca aster is included in this Conservation Area. Le Conte's thrasher and

burrowing owl occur in this Conservation Area. The mesquite hummocks, desert dry wash woodland, and desert fan palm oasis woodland areas contain suitable migration and breeding habitat for the riparian bird species covered by the Draft CVMSHCP. The desert fan palm oasis woodlands provide the largest amount of natural habitat for the southern yellow bat in the CVMSHCP Area. The existing preserve contains a refugium for the desert pupfish. The native habitats present in and adjacent to the ROW include active desert dunes, active sand fields, Sonoran creosote bush scrub, desert fan palm oasis woodland, Sonoran cottonwood-willow riparian forest, Sonoran mixed woody and succulent scrub, mesquite hummocks, and desert dry wash woodland.

The Edom Hill Conservation Area (4,070 acres) extends northward from the Indio Hills to encompass an unnamed wash that flows out of the Indio Hills in a southwesterly direction to the existing Willow Hole Preserve. This Conservation Area does not provide Core Habitat for any of the species covered under the Draft CVMSHCP. But, it does contain Other Conserved Habitat for Coachella Valley milkvetch, Mecca aster, Coachella Valley giant sand-treader cricket, Coachella Valley Jerusalem cricket, Coachella Valley fringe-toed lizard, flat-tailed horned lizard, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse. In addition, it also provides habitat for Le Conte's thrasher and burrowing owl. The patches of habitat in the Edom Hill Conservation Area are important for maintaining connectivity between the Willow Hole Conservation Area and the Thousand Palms Conservation Area. The proposed ROW would be located approximately one-half mile south of the southern boundary of this Conservation Area between MPs E213.3 and E221.3. The native habitats that occur in this Conservation Area include active desert sand fields, stabilized and partially stabilized desert sand fields, Sonoran creosote bush scrub, and Sonoran mixed woody and succulent scrub.

The Willow Hole Conservation Area consists of 5,770 acres, and includes portions of the Mission Creek flood control channel and Morongo Wash. This conservation area also includes the Mission Creek and Morongo Wash sand depositional areas and Aeolian sand transport areas between Mission Creek and Flattop Mountain. The blow sand habitat areas along San Andreas Fault and the Willow Hole Preserve are also included in this Conservation Area. It lies between the Upper Mission Creek/Big Morongo Canyon Conservation Area, the Long Canyon Conservation Area, and the Edom Hill Conservation Area. It is connected to the Whitewater Floodplain Conservation Area by culverts under the I-10 freeway. The ROW crosses the Willow Hole Conservation Area between MPs E218.6 and E223.6. This Conservation Area contains Core Habitat for the Coachella Valley milkvetch, Coachella Valley fringe-toed lizard, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse. In addition, the area also contains suitable migration and breeding habitat for riparian species covered by the CVMSHCP. Other Conserved Habitat for Coachella Valley milkvetch, desert tortoise, Coachella Valley giant sand-treader cricket, Coachella Valley Jerusalem cricket, Coachella Valley fringe-toed lizard, flat-tailed horned lizard, crissal thrasher, Coachella Valley round-tailed ground squirrel, Palm Springs pocket mouse, southern yellow bat, and little San Bernardino mountains linanthus. Four known locations for burrowing owl have been documented in this Conservation Area. The native habitats that occur in this Conservation Area include active desert sand fields, stabilized and partially stabilized desert dunes and desert sand fields, ephemeral desert sand fields, mesquite hummocks, Sonoran creosote bush scrub, desert saltbush scrub, desert fan palm oasis woodland, and Sonoran mixed woody and succulent scrub. This Conservation Area contains 93 percent of the occurrence of stabilized and partially stabilized desert dunes in the CVMSHCP Area.

Coachella Valley Fringe-Toed Lizard Critical Habitat. Designated Critical Habitat for the CVFTL is present in a portion of the Coachella Valley Preserve and Thousand Palms Conservation Area. The Proposed Project would traverse Critical Habitat for the CVFTL between MPs E209.3 and E215.

D.2.3 Environmental Setting for the Proposed Project – West of Devers

D.2.3.1 Devers Substation to East Border of Banning

Plant Communities and Sensitive Habitats

Plant communities within this segment include Sonoran of creosote bush scrub, Sonoran mixed woody and succulent scrub, and brittlebush scrub, saltbush scrub, catclaw acacia, and catclaw acacia/grassland. Windfarms and scattered residential properties between the Devers Substation and Whitewater River have resulted in disturbances to the creosote bush scrub, and mixed woody and succulent scrub habitats in this area. Whitewater River, at the location where the Proposed Project would cross (between MPs W3.2 and W3.5), is a deep, cobble-bottomed gorge with steep banks. Sandbar willow is present but sparse, and water is present most of the year. The floodplain of Whitewater River is considered a sand source and transport area to other areas downstream. It is also considered an important linkage to other habitat areas located south of I-10. The Proposed Project would also traverse large desert washes flowing from Cottonwood and Stubbe Canyons between MPs W6.2 and W6.3 and MPs W6.9 and W7.1, respectively. Additional desert washes are crossed near MPs W9.0, W9.4, W10.3, W11.2, and W12.0. Between Whitewater River and the City of Cabazon, the Proposed Project would traverse creosote bush scrub, mixed woody and succulent scrub, and dry desert wash woodlands. These areas are also considered important sand transport and source areas located south of I-10.

Developed areas, consisting of scattered residences and/or commercial areas, are present between MPs W6.3 and W6.8, MPs W8.0 and W8.3, and MPs W13.7 and W14.2. The native vegetation communities in these areas have been removed or disturbed. Disturbed vegetation, consisting of ruderal and non-native grasslands, is present between MPs W13.2 and W13.7 and MPs W14.2 and W14.3.

Special Status Plant and Wildlife Species

Plant Species

One sensitive plant species, the white-bracted spineflower, a CNPS List 1B species, was documented within the segment in three occurrences at the eastern end of the segment between the Community of Cabazon and Whitewater River (between MPs W11 and W14) (BioResource, 2003).

One listed plant species, Mojave tarplant, has a high potential to occur in this segment. Mojave tarplant, a federal species of concern, State endangered species, and CNPS List 1B species, is typically found in chaparral, coastal scrub, and mesic riparian scrub habitats at elevations ranging from 640 to 1,600 meters. This species is known to occur on the north-facing slopes of the San Jacinto Mountains near the Community of Cabazon and from the San Gorgonio River near the City of Banning.

The following seven sensitive plant species have a high potential to occur in or adjacent to the ROW this segment:

- chaparral sand-verbena
- Yucaipa onion
- Jaeger's milkvetch
- little San Bernardino Mountains gilia
- Parry's spineflower
- cliff spurge
- slender woolly-heads

Four of these species, including the chaparral sand-verbena, Yucaipa onion, Jaeger's milkvetch, and little San Bernardino Mountains gilia, are designated as CNPS List 1B species. Chaparral sand verbena is known to occur between MPs W2 and W4 and may also occur in the desert dunes in the eastern part of the segment, whereas Yucaipa onion and Jaeger's milkvetch have a high potential to occur within suitable chaparral habitat in the western portion of this segment. Little San Bernardino Mountains gilia, also a BLM sensitive species and a covered species under the CVMSHCP, is also known to occur in the eastern portion of this segment. The other three sensitive plant species have been designated List 2 or 3 species by the CNPS.

Three plant species that are federally listed endangered and CNPS List 1B species have a moderate potential in this segment. These species include Munz's onion, which is also State listed threatened, San Diego ambrosia, also a BLM sensitive species, and Coachella Valley milkvetch. Munz's onion and San Diego ambrosia both have a moderate potential to occur in the chaparral and grassland habitats that are present in the western portion of this section. More than 20 Coachella Valley milkvetch plants were documented along the proposed ROW just west of Devers Substation (Environmental Planning Group and Greystone, 2005).

Fourteen sensitive plant species also have a moderate potential to occur in this segment, including:

- Parish's brittlescale
- long-spined spineflower
- Southern California black walnut
- Robinson's pepper-grass
- ocellated Humboldt lily
- California muhly
- Fish's milkwort
- Engelmann oak
- Coulter's matilija poppy
- Latimer's woodland gilia
- San Miguel savory
- purple stemodia
- San Bernardino aster
- Sonoran maiden fern

Six of these plant species, including Parish's brittlescale, long-spined spineflower, Robinson's pepper-grass, Latimer's woodland gilia, San Miguel savory, and San Bernardino aster, are designated as List 1B species by the CNPS. These species occur in a variety of habitats including chaparral, grassland, and stream habitats. The other eight sensitive plant species that have a moderate potential to occur within this segment are all CNPS List 4 species, except purple stemodia, which is designated as a List 2 species by the CNPS. Robinson's pepper-grass, ocellated Humbolt lily, California muhly, Fish's milkwort, Engelmann's oak, San Miguel savory, and Coulter's matilija poppy are typically found in chaparral and/or riparian habitats, which can be found in the western portion of this segment. See Table D.2-4 for more detail about these species and the known occurrences in the project area.

Wildlife Species

Invertebrates. Similar to the Cactus City Rest Area to Devers Substation segment to the east, two species of invertebrates, Coachella Valley giant sand-treader cricket and Coachella Valley Jerusalem cricket, have a high potential to occur within this segment. Both of these species utilize active sand dunes and ephemeral sand fields. These types of habitat are present in a patchy distribution between Devers Substation and the Community of Cabazon (MPs W0 to MP W13). While neither of these species are special status species, both are covered under the CVMSHCP.

Fishes and Amphibians. This segment of the ROW is not expected to include any sensitive species of fishes.

Two listed species of amphibians, arroyo toad and mountain yellow-legged frog, have a high potential to occur within this segment. Both species are federally listed endangered species and California special concern species. The arroyo toad was reported as occurring in Whitewater Canyon in 1992; however, it is unknown if this species still occurs there, although the habitat is intact. There is speculation that Snow Creek, which is located southwest of Whitewater Canyon, may also provide appropriate habitat for the arroyo toad. The mountain yellow-legged frog has a historical record in Whitewater wash, located approximately three miles north of I-10. However, the habitat where the proposed ROW crosses Whitewater Canyon is not typical of habitat where this species is usually found.

The coast range newt, a California special concern species, has a moderate potential to occur north of the proposed ROW in Whitewater Canyon. This species inhabits drier habitats adjacent to water sources that are suitable for breeding, therefore the habitat located where the proposed ROW would cross Whitewater Canyon may not be suitable for the coast range newt.

Reptiles. One listed species, the desert tortoise, and two sensitive species, the San Diego horned lizard and northern red diamond rattlesnake, have been observed within this segment. The desert tortoise, which is a federal and State listed threatened species that is also covered by the CVMSHCP, has been documented within the ROW. However, if this species occurs within this segment, it likely occurs in low numbers. The San Diego horned lizard and northern red diamond rattlesnake, both of which are California special concern species, have also been observed in this segment at various locations, including adjacent to the Whitewater River.

Two sensitive reptile species have a high potential to occur in this segment. Whitewater Canyon would be expected to support suitable habitat for the two-striped garter snake, a California special concern species and BLM sensitive species, because of the presence of the river. This species has been reported in Whitewater Creek approximately within the ROW (CNDDB, 2005). The rosy boa has a high potential to occur in this segment because it has been observed on Whitewater Canyon Road and it would be expected to occur in other natural areas of this segment.

Three California special concern reptile species, including flat-tailed horned lizard, Belding's orange-throated whiptail, and silvery legless lizard, have a moderate potential to occur within this segment. The orange-throated whiptail potentially occurs in the western portions of this segment, and typically inhabits scrub communities with sandy soils. The flat-tailed horned lizard, which is also a BLM sensitive species, may occur in the eastern portion of this segment, between Devers Substation and the community of Cabazon. It is typically found in desert washes and flats with fine sandy soils. The silvery legless lizard is likely found throughout this segment; however the western extent of its range falls within the proposed ROW.

Birds. The Le Conte's thrasher, a California special concern species and BLM sensitive species, was observed within the ROW of this segment (ECORP Consulting, Inc., 2005). This species would be expected to occur in the desert scrub of this segment.

The least Bell's vireo, a federal and State listed endangered species that is also covered under the CVMSHCP, has a high potential to occur in the vicinity of this segment. Potentially suitable habitat is present in Whitewater Canyon, located north of the ROW, and low quality habitat is located in Snow Creek, south of the I-10. However, the habitat located where the Proposed Project would cross Whitewater Canyon would not be considered suitable for this species.

In addition, the following seven sensitive bird species, which are all California special concern species, have a high potential to occur within or adjacent to the proposed ROW of this segment:

- Cooper's hawk
- ferruginous hawk
- golden eagle
- prairie falcon
- burrowing owl
- vermillion flycatcher
- loggerhead shrike

The ferruginous hawk, which is also a BLM sensitive species, golden eagle, and prairie falcon likely forage in the habitats in this segment of the ROW. Both the golden eagle, which is also a CDFG fully protected species, and prairie falcon utilize cliffs and steep rocky hillsides for breeding, and could potentially nest within this segment. The Cooper's hawk may potentially utilize the riparian habitat north of the ROW in Whitewater Canyon; however, this species also frequents neighborhoods with large trees and it is relatively common in developed areas. The burrowing owl, also a BLM sensitive species, could potentially be found in the flat, undeveloped areas along this entire segment. This species has been observed southwest of Devers Substation, in the area between I-10 and Highway 111. The vermillion flycatcher is known to occur in the riparian habitat in Morongo Canyon and it potentially occurs in the riparian habitat in Whitewater Canyon.

Three California special concern species of birds, including the mountain plover, long-eared owl, and yellow warbler, have a moderate potential to occur within or adjacent to the ROW of this segment. The mountain plover occurs in desert and agricultural areas and its range overlaps this segment. The long-eared owl is known to occur in desert oases and it may occur in the riparian habitat in Whitewater Canyon. The yellow warbler, which is covered under the CVMSHCP, also inhabits riparian habitat, and potentially occurs in the riparian habitat in Whitewater Canyon.

Raptor nests, likely belonging to red-tailed hawks or ravens, have been observed on some of the existing towers within this segment.

Mammals. One federal Candidate species, the Palm Springs round-tailed ground squirrel, is known to occur in the vicinity of the western portion of this segment. Suitable habitat for this species, which is also a California special concern species, occurs in a patchy distribution between Devers Substation and the community of Cabazon.

Four sensitive mammal species have a high potential to occur in or adjacent to this segment of the ROW, including spotted bat, northwestern San Diego pocket mouse, Palm Springs pocket mouse, and Los Angeles pocket mouse. The Palm Springs pocket mouse is known from several dozen locations in the Coachella Valley. Suitable habitat for this subspecies occurs from Devers Substation west to near the east border of Banning. The spotted bat has a high potential to occur in this section because suitable roosting and foraging habitat is present in the surrounding desert areas. The spotted bat may forage in this segment and it could potentially roost in rock crevices and caves in the hilly portions of this segment. The northwestern San Diego pocket mouse and Los Angeles pocket mouse both potentially occur in the desert habitats with sandy soils.

The following 12 sensitive mammal species, including eight bat species and four other mammal species, have a moderate potential to occur along this segment:

- California leaf-nosed bat
- pallid bat
- Townsend's big-eared bat
- western yellow bat
- fringed myotis
- Yuma myotis
- western mastiff bat
- pocketed free-tailed bat
- big free-tailed bat
- San Diego black-tailed jackrabbit
- pallid San Diego pocket mouse
- American badgers

The desert scrub and desert washes represent suitable foraging habitat for the bat species and the surrounding hills and mountains likely contain suitable roosting habitat for these species. The sensitive non-bat species are typically found in desert scrub habitats and likely occur in the grasslands and undisturbed portions of this segment.

Special Habitat Management Areas Overview

In this segment, only the portion of the ROW between Devers Substation and Whitewater Canyon is included in the CDCA Plan. Two areas identified in the CDCA Plan are located in this segment. They include the HMP for CVFTL and the Whitewater Canyon ACEC. The entire segment between Devers and Banning is included in the Draft CVMSHCP Area. The proposed CVMSHCP Conservation Areas that are located within or adjacent to the ROW include Upper Mission Creek/Big Morongo Canyon, Whitewater Canyon, Stubbe and Cottonwood Canyons, and Cabazon. These four Conservation Areas are located north of the I-10 freeway. Two Conservation Areas, Snow Creek/Windy Point and Santa Rosa and San Jacinto Mountains, and a portion of the Cabazon Conservation Area are located south of the I-10 in the western portion of the Draft CVMSHCP area. Management areas identified in these plans and other areas designated as Reserves, Natural Areas, or Critical Habitat located within or adjacent to this section of the route are described below.

CDCA Plan. The management areas within this segment that were identified in the CDCA Plan are the HMP for CVFTL and the Whitewater Canyon ACEC. The HMP for CVFTL encompasses two small areas of habitat for the CVFTL on BLM lands. One area is located south of I-10, northeast of Highway 111, and just southwest of the junction of I-10 and Highway 62 (MP W1.2 to W6.3). A portion of this area falls within the CVMSHCP Whitewater Floodplain Conservation Area. The second area is located right along the I-10 freeway west of the Highway 111/I-10 junction, at the extreme western end of the CDCA Plan Area (MP W6.3 to W8.8). The HMP was directed at the protection and management of the blow sands areas and known habitat for the CVFTL that were present on BLM lands. These areas are included within the Draft CVMSHCP Area.

Draft Coachella Valley MSHCP. This entire segment is located within the area covered by the Draft CVMSHCP. The proposed Conservation Areas that are located within or adjacent to this segment of the ROW are described below.

The Upper Mission Creek/Big Morongo Canyon Conservation Area (29,875 acres) encompasses the Mission Creek and Big Morongo Canyon watersheds and the portions of the Mission Creek flood control channel and Morongo Wash within the City of Desert Hot Springs. The ROW crosses this Conservation Area between MPs W1.5 to W3.5. On the east side of Highway 62 in this Conservation Area is the largest habitat area in the CVMSHCP for little San Bernardino linanthus. The linanthus habitat is located in the meandering braided channels in Mission Creek east of the highway and in both Dry Morongo Wash and Big Morongo Wash. Additional habitat occurs where the two washes meet to become the Morongo Wash area. Significant Core Habitat is present for the triple-ribbed milkvetch. Core Habitat for Palm Springs pocket mouse is present on both sides of Highway 62 and where the highway bridges

Mission Creek. The population of desert tortoise within this Conservation Area is considered to be connected to a larger viable population stretching southwest into the Whitewater Canyon Conservation Area and eastward through the Little San Bernardino Mountains into Joshua Tree National Park Conservation Area. The riparian areas along Mission Creek contain suitable migration and breeding habitat for riparian species covered by the CVMSHCP. Potential habitat for the arroyo toad and Other Conserved Habitat for Coachella Valley milkvetch, Coachella Valley Jerusalem cricket, flat-tailed horned lizard, gray vireo, Le Conte's thrasher, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse are present in this Conservation Area. The native habitats crossed by the ROW include dry desert wash woodland and Sonoran mixed woody and succulent scrub. In addition, the ROW also crosses an area that is considered a sand source that provides blow sand to the Willow Hole Preserve and to some extent, to the Whitewater Floodplain Preserve.

The Whitewater Canyon Conservation Area (14,170 acres) encompasses the Whitewater River and its watershed north of the I-10 freeway. This Conservation Area lies between the Stubbe and Cottonwood Canyons Conservation Area to the west and southwest and the Upper Mission Creek/Big Morongo Canyon Conservation Area to the east and northeast. The I-10 freeway borders this Conservation Area on the south. The ROW crosses this Conservation Area between MPs W3.5 and W4.0. The Conservation Area contains the only confirmed historic habitat for the arroyo toad in the CVMSHCP Area. Habitat for riparian birds and desert tortoise is present in this Conservation Area. This Conservation Area also contains Core Habitat for triple-ribbed milkvetch and Other Conserved Habitat for Coachella Valley milkvetch, Little San Bernardino Mountains linanthus, Coachella Valley Jerusalem cricket, desert tortoise, gray vireo, Le Conte's thrasher, Coachella Valley round-tailed ground squirrel, southern yellow bat, and Palm Springs pocket mouse. The native habitats crossed by the ROW include Sonoran creosote bush scrub and Sonoran mixed woody and succulent scrub. In addition, the ROW also crosses an area that is considered a sand source and sand transport area. The Whitewater River is a fluvial sand transport system for the Whitewater Floodplain Preserve Conservation Area located south of the I-10 freeway. Whitewater Canyon serves as part of a Linkage and Biological Corridor linking the San Bernardino Mountains portion of the Transverse Ranges with the Peninsular Ranges (San Jacinto and Santa Rosa Mountains) through the Snow Creek/Windy Point Conservation Area.

The Stubbe and Cottonwood Canyons Conservation Area (9,840 acres) encompasses the area north of the I-10 freeway and west of Whitewater Canyon, including Stubbe and Cottonwood Canyons and portions of their alluvial fans down to the I-10 freeway. This Conservation Area is bounded on the east by the Whitewater Canyon Conservation Area and on the west by the Cabazon Conservation Area. The desert tortoise population in this Conservation Area centers on the mesas to the west of the Whitewater River and this population may be the most dense tortoise population in the CVMSHCP Area. These canyons contain suitable migration and breeding habitat for least Bell's vireo, southwestern willow flycatcher, summer tanager, yellow-breasted chat, and yellow warbler. The Conservation Area contains Other Conserved Habitat for Coachella Valley milkvetch, Coachella Valley Jerusalem cricket, desert tortoise, gray vireo, Le Conte's thrasher, burrowing owl, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse. The native habitats present in this Conservation Area include Sonoran creosote bush scrub, Sonoran mixed woody and succulent scrub, Sonoran cottonwood-willow riparian forest, desert dry wash woodland, semi-desert chaparral, interior live oak chaparral, and chamise chaparral. The ROW crosses Sonoran creosote bush scrub, Sonoran mixed woody and succulent scrub, and desert dry wash woodland between MPs W4 and W10.4.

The Cabazon Conservation Area (12,470 acres) consists of the San Gorgonio River and several tributaries in the westernmost part of the CVMSHCP Area and portions of the San Jacinto Mountains and the San Bernardino Mountains. Portions of this Conservation Area are within the Morongo Indian Res-

ervation, which is not part of the CVMSHCP. The primary importance of this Conservation Area is that the San Gorgonio River and various tributaries function as a fluvial sand transport system for the Snow Creek/Windy Point Conservation Area and the Whitewater Floodplain Conservation Area. The portions of the San Bernardino Mountains and San Jacinto Mountains included in this Conservation Area are sand sources for this fluvial sand transport system. The San Gorgonio River and associated tributaries also serve as a corridor between the San Bernardino Mountains and the San Jacinto Mountains through the Fornat Wash culvert that goes under the I-10 freeway. The Cabazon Conservation Area does not provide Core Habitat for any of the Covered Species in the CVMSHCP Area but it does contain Essential Habitat for the Peninsular bighorn sheep. Other Conserved Habitat for Coachella Valley milkvetch, Coachella Valley Jerusalem cricket, desert tortoise, gray vireo, least Bell's vireo, Le Conte's thrasher, southwestern willow flycatcher, summer tanager, yellow-breasted chat, yellow warbler, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse is present. This Conservation Area supports seven different native habitats but the only habitat located in or adjacent to the existing ROW is Sonoran creosote bush scrub. The ROW crosses this Conservation Area between MPs W14.1 and W14.4 and between W16.1and W16.6.

The Whitewater Floodplain Conservation Area (7,370 acres) encompasses portions of the Whitewater River floodplain south of I-10 eastward to the existing Whitewater Floodplain Preserve, which was established by the CVFTL HCP. This Conservation Area is located east of the Highway 111/I-10 Conservation Area. Core Habitat for the Coachella Valley milkvetch, Coachella Valley giant sand-treader cricket, Coachella Valley fringe-toed lizard, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse is present in this area. In addition, Other Conserved Habitat for triple-ribbed milkvetch, desert tortoise, flat-tailed horned lizard, burrowing owl, and Le Conte's thrasher is also present. The native habitats in this Conservation Area include active desert sand fields, ephemeral desert sand fields, stabilized and partially stabilized desert sand fields, stabilized shielded desert sand fields, Sonoran creosote bush scrub, and Sonoran mixed woody and succulent scrub.

The Highway 111/I-10 Conservation Area (390 acres) encompasses portions of the non-developed and non-Indian owned land between Highway 111 and I-10 west of the Whitewater River. This area does not provide Core Habitat for any species but there is a probable connection between the habitat in this Conservation Area, the Snow Creek/Windy Point Conservation Area located to the south, and the Whitewater Canyon Conservation Area located to the north. The only habitat in this Conservation Area is Sonoran creosote bush scrub. This habitat is considered Other Conserved Habitat for Coachella Valley milkvetch, triple-ribbed milkvetch, Coachella Valley Jerusalem cricket, desert tortoise, Le Conte's thrasher, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse.

The Snow Creek/Windy Point Conservation Area (2,940 acres) encompasses the area between the toe-of-slope of the San Jacinto Mountains and Highway 111 and extends westward to the range line separating Range 2 East and Range 3 East, and eastward to Windy Point. This Conservation Area is located immediately south of the I-10 freeway and the northern boundary of this Conservation Area is approximately one mile south of the existing ROW. This area protects a significant blow sand ecosystem at the western edge of the CVMSHCP Area. It provides Core Habitat for the Coachella Valley milkvetch, Coachella Valley fringe-toed lizard, Coachella Valley giant sand-treader cricket, Coachella Valley Jerusalem cricket, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse. Burrowing owls have been documented in this Conservation Area and the area also provides some Essential Habitat for Peninsular bighorn sheep. In addition, the area is important for neotropical migrants (birds that breed in the United States and winter to the south of the United States) moving through the San Gorgonio Pass. Some of these, including least Bell's vireo, southwestern willow flycatcher, yellow warbler, yellow-breasted chat, and summer tanager, may nest in the adjacent canyons in the Santa

Rosa and San Jacinto Mountains Conservation Area. Other Conserved Habitat for the gray vireo and Le Conte's thrasher is also present in this area. The native habitats in this Conservation Area include active desert dunes, ephemeral sand fields, semi-desert chaparral, Sonoran creosote bush scrub, and stabilized sand fields.

The Santa Rosa and San Jacinto Mountains Conservation Area (212,200 acres) encompasses virtually all of the desert slopes of the Santa Rosa and San Jacinto Mountains below the upper elevation limit of Peninsular bighorn sheep habitat, as well as much of the higher elevation areas of the Santa Rosa Mountains where there is known and potential habitat for the gray vireo. To the north, this Conservation Area is contiguous with the Snow Creek/Windy Point Conservation Area. To the south it is linked to Anza Borrego Desert State Park and to the west it is linked with the San Bernardino National Forest areas and Mt. San Jacinto State Park. This Conservation Area provides Essential Habitat for the Peninsular bighorn sheep and contains nearly 70,000 acres of potential habitat for the gray vireo. Low-density desert tortoise habitat is spread throughout the mountains, but it is not known whether the population density is such that this Conservation Area can be considered Core Habitat for the tortoise. Suitable migration and breeding habitat for the riparian species covered by the CVMSHCP is present in this area. The desert fan palm oasis woodlands provide nearly 1,000 acres of habitat for the southern yellow bat. One known occurrence of the triple-ribbed milkvetch has been documented in the Santa Rosa Mountains. The area also contains a small amount of habitat for Coachella Valley milkvetch, Coachella Valley fringe-toed lizard, Coachella Valley giant sand-treader cricket, Coachella Valley Jerusalem cricket, flat-tailed horned lizard, burrowing owl, Le Conte's thrasher, Coachella Valley round-tailed ground squirrel, and Palm Springs pocket mouse. This Conservation Area supports a diverse array of native habitats considering the broad range of elevation that it covers. The only native habitats present in the northern portion of this Conservation Area, which is closest to the existing ROW and project alternatives are Sonoran creosote bush scrub, Sonoran mixed woody and succulent scrub, semi-desert chaparral, and mesquite hummocks.

D.2.3.2 Banning and Beaumont

Plant Communities and Sensitive Habitats

The vegetation communities in this segment of the ROW primarily consist of non-native grasslands, Riversidean sage scrub/chaparral, and disturbed areas. The drainages that would be traversed by this segment of the Proposed Project support either a sparse distribution of mixed scalebroom and desert willow or a narrow patch of riparian habitat. The eastern portion of this segment is primarily dominated by a mixture of catclaw scrub. The Proposed Project would parallel and cross a tributary to the San Gorgonio River between MPs W11.9 and W12.1 and it would cross the San Gorgonio River between MPs W17.6 and W18.1.

The vegetation in the San Gorgonio River and the adjacent tributary primarily consists of sparse scalebroom with scattered desert willows. Some coast live oak, sycamore (*Platanus racemosa*), and cottonwood trees also occur within the San Gorgonio River; however, very few of these species occur within the ROW at the river crossing. No new towers are planned within the tributary, but two tower locations, T149A and T150, located within or immediately adjacent to the River would be removed or replaced. From west of the San Gorgonio River to MP W19, the vegetation community consists of a Riversidean sage scrub/chaparral mix. This community is found on the undisturbed foothills located north of the Cities of Banning and Beaumont. A patch of Riversidean sage scrub/chaparral is also crossed between MPs W19.9 and MP 20.3.

Well-vegetated drainages that likely support a dense riparian community, are crossed between MPs W18.6 and W18.7, as well as MP W19.9 through MP W20.0. Most of the area west of the San Gorgonio River, between MPs W19.0 and W23.0, is dominated by non-native grasslands and areas that have been disturbed by human activities. The ROW would also traverse a mining operation between MPs W16.5 and W17.1 and developed areas in the City of Beaumont between MPs W23.0 and the western boundary of this segment. These developed and disturbed areas include a patchy distribution of non-native grasslands and ruderal areas where the native vegetation has been removed and has been replaced with non-native and weedy plant species.

Special Status Plant and Wildlife Species

Plants Species

Five sensitive species of plants, including Yucaipa onion, Jaeger's milkvetch, Plummer's mariposa lily, Parry's spineflower, and white-bracted spineflower, have a high potential to occur within or adjacent to the ROW of this segment. Each of these plants, except for the Parry's spineflower, has been designated a List 1B species by the CNPS. In addition, Yucaipa onion, Jaeger's milkvetch, Plummer's mariposa lily, and Parry's spineflower are covered in the WRMSHCP. While white-bracted spineflower is known from three occurrences east of this segment, potential desert scrub habitat in this segment. See Table D.2-4 for more detail about these species and the known occurrences in the project area.

Three federally listed endangered and CNPS List 1B plant species, Munz's onion, San Diego ambrosia, and San Jacinto Valley crownscale, have a moderate potential to occur in this segment. Munz's onion, also a State listed threatened species, is typically found in chaparral, coastal sage scrub, and mesic riparian scrub habitats at elevations ranging from 640 to 1,600 meters. San Diego ambrosia, also a BLM sensitive species, has a moderate potential to occur in the chaparral and grassland habitats that are present in the western portion of this section. The San Jacinto Valley crownscale is known to occur near the ROW; however, the habitat in this segment is only marginally suitable for this species, as all formerly suitable habitat is now developed or urbanized

The following 14 sensitive plant species have a moderate potential to occur in or adjacent to the ROW of this segment:

- chaparral sand-verbena
- smooth tarplant
- long-spined spineflower
- Southern California black walnut
- Robinson's pepper-grass
- ocellated Humboldt lily
- Parish's bush mallow
- Hall's monardella
- California muhly
- Fish's milkwort
- Engelmann oak
- Coulter's matilija poppy
- San Miguel savory
- San Bernardino aster

Seven of these plant species, including the chaparral sand-verbena, smooth tarplant, long-spined spineflower, Robinson's pepper-grass, Hall's monardella, San Miguel savory, and San Bernardino aster, are CNPS List 1B species. Chaparral sand-verbena potentially occurs in chaparral habitat and although this species has been recorded in the vicinity of the ROW from San Gorgonio Pass west to San Bernardino, it has not been recorded within 5 miles of the ROW (BioResource, 2003). San Jacinto Valley crownscale is known to occur 5 miles south of the ROW and 7 miles southwest of Beaumont and the 60/I-10 junction (BioResource, 2005). The ROW in this segment is judged to be only marginally suitable for this species, as all formerly suitable habitat is now developed or urbanized (BioResource, 2003).

Smooth tarplant has a moderate potential to occur in riparian habitats in this segment of the ROW. This species is known to occur in San Timoteo Canyon located to the west of this segment. Long-spined spineflower, which occurs in chaparral and grasslands, was reported by BioResource Consultants (2003) approximately 12 miles southwest of the ROW; however, no location information was supplied. Southern California black walnut has a moderate potential to occur in the chaparral habitat in this segment of the ROW. Robinson's pepper-grass, ocellated Humboldt lily, and Parish's bush mallow have a moderate potential to occur in the chaparral habitat in the section. Hall's monardella also has a moderate potential to occur in chaparral and it is known to occur north of the adjacent segment to the west (CNDDB, 2005). California muhly, Fish's milkwort, and Coulter's matilija poppy have a moderate potential to occur in the chaparral habitat in this segment. Engelmann's oak has a moderate potential to occur in the chaparral and riparian habitats in this segment. San Bernardino aster, which occurs in grasslands, is known to occur 4 miles southeast of Banning, approximately 5 miles south of this segment of the ROW, between MPs W15 and W18.

Wildlife Species

Invertebrates. This segment likely does not contain suitable habitat areas for sensitive or listed species of invertebrates. No invertebrate species were determined to have a high or moderate potential to occur within this segment of the Proposed Project.

Fishes and Amphibians. This segment of the ROW does not contain suitable habitat areas for sensitive or listed species of fishes. No fish species were determined to have a high or moderate potential to occur in this segment of the ROW.

The mountain yellow-legged frog, a federally endangered, California special concern species, and BLM sensitive species, has been observed within this segment. It has been documented in the San Jacinto Mountains, near the gravel pit northeast of the City of Banning (MP W16.5), and adjacent to the San Gorgonio River near Banning Peak (approximate MP W17.4). This species is highly aquatic and inhabits ponds, dams, lakes, and streams at moderate to high elevations.

One sensitive species of amphibian, the western spadefoot toad, has a high potential to occur in this segment. This species is a California special concern species and BLM sensitive species. The western spadefoot toad frequents grasslands and scrub habitats where temporary breeding pools may be available.

Reptiles. Two sensitive species of reptiles, the San Diego horned lizard and northern red diamond rattlesnake, have been observed in this segment. Both species are California special concern species and are covered in the WERMSHCP. The San Diego horned lizard, also a BLM sensitive species, was documented at a single location just east of the San Gorgonio River. This species likely occurs in the sage scrub and chaparral habitats with sandy soils that occur in portions of this segment. The northern red-diamond rattlesnake has been observed at two locations within this segment, and likely occurs in the scrub and chaparral habitats throughout this segment.

Three sensitive reptile species have a moderate potential to occur in this segment, including silvery legless lizard, southern rubber boa, and Belding's orange-throated whiptail. Suitable habitat for the silvery legless lizard and orange-throated whiptail, both of which are California special concern species, is present within the chaparral and scrub habitats that also support sandy soils. The southern rubber boa, a California listed threatened species, inhabits grasslands, mountain meadows, deciduous and coniferous forest chaparral, woodlands, and generally occurs along stream sides (CNDDB, 2005). The chaparral habitat within this segment, particularly near the riparian habitats in the larger drainages, potentially supports this species.

Birds. Five California special concern bird species, including the following species, have a high potential to occur within this segment:

- ferruginous hawk
- golden eagle
- burrowing owl
- mountain plover
- loggerhead shrike

All of these bird species are covered in the WRMSHCP. As stated for the previous segments, the raptor species are wide ranging and would be expected to forage in the natural habitats within this segment. The ferruginous hawk, also a BLM sensitive species, has been observed flying over the Beaumont area, but would not be expected to nest in this segment. The golden eagle, which is also a CDFG fully protected species and BLM sensitive species, may nest in the steep rocky cliff areas within this segment. The loggerhead shrike would be expected to forage and/or nest in the natural habitat areas within this segment. The mountain plover is known to utilize desert habitats, and may occur in the western portion of this segment. The burrowing owl, also a BLM sensitive species, may utilize the open grassland and wash areas within this segment of the ROW.

Four sensitive bird species, including the peregrine falcon, California horned lark, southern California rufous-crowned sparrow, and Bells' sage sparrow, have a moderate potential to occur within or adjacent to ROW of this segment. The peregrine falcon, which is a State listed endangered species and CDFG fully protected species, has been federally delisted. It likely forages in the ROW of this segment and it may nest in the rocky cliffs located in the adjacent foothills and mountains. The other three birds are California special concern species. The California horned lark potentially utilizes the open grasslands and other open areas with low vegetation that may provide suitable foraging and nesting habitat. The southern California rufous-crowned sparrow may utilize the scrub covered hillsides in this section, while the Bell's sage sparrow typically occurs in chaparral. All of these species are covered in the WRMSHCP.

Mammals. The Stephens' kangaroo rat, a federally listed endangered and State listed threatened species, has a high potential for occurrence in open grasslands or sparse shrublands within and adjacent to the ROW of this segment. This species has been documented in the Potrero area, approximately 2.5 miles south of the ROW.

The following seven sensitive mammal species have a high potential to occur in or adjacent to the ROW of this segment:

- western yellow bat
- San Diego black-tailed jackrabbit
- Dulzura pocket mouse
- northwestern San Diego pocket mouse
- Los Angeles pocket mouse
- San Diego desert woodrat
- American badger

All of these mammals are California special concern species, except for the western yellow bat. These mammal species have been documented in various locations in the vicinity of this segment, except for the American badger. However, suitable habitat for the American badger is present in the open, sparsely vegetated areas that area located away from developed areas.

Six sensitive mammal species, including the following, have moderate potential to occur along the ROW of this segment:

- pallid bat
- Townsend's big-eared bat
- spotted bat
- fringed myotis
- western mastiff bat
- San Bernardino white-eared pocket mouse

All of these mammal species are California special concern species, except for the fringed myotis. The bat species, all of which are also BLM sensitive species, could potentially forage and/or roost within this segment. The rocky hillsides likely provide suitable crevices and/or caves for roosting. In addition, the San Bernardino white-eared pocket mouse may occur in the shrubland and woodland habitats in this segment.

Special Habitat Management Areas Overview

Western Riverside MSHCP

The Pass Area Plan. The entire ROW between Banning and Beaumont lies within the Pass Area Plan of the Western Riverside MSHCP. Suitable habitat areas within criteria areas in the Pass Area Plan are subject to focused surveys for narrow endemic plants, burrowing owl, and sensitive mammals (including Los Angeles pocket mouse and San Bernardino kangaroo rat). Criteria areas are located just west of the western portion this segment, near the junction of the I-10 and the 60 Freeway. Because the ROW does not cross through any criteria areas in this segment, no focused surveys for endemic plants, burrowing owl, or sensitive mammals are required. A special linkage area, which includes a portion of the San Gorgonio River/San Bernardino–San Jacinto Mountains Linkage, encompasses the areas on the eastern side of Banning.

D.2.3.3 Calimesa and San Timoteo Canyon

Plant Communities and Sensitive Habitats

A wildfire occurred in summer 2005 that burned a majority of the sage scrub, chaparral, and grassland habitats in the foothills south of San Timoteo Canyon Road, including within this segment. Prior to being burned, most of this segment was dominated by a mosaic of dense patches of chaparral, sage scrub/chaparral/grassland mixed communities, and non-native grasslands. The pre-fire plant communities will likely return to those areas that did not experience intense burning; however, the heavily burned areas may convert to non-native grasslands if the seed bank of chaparral and sage scrub plant species was eliminated or if the non-native grasses out compete the native plants.

A few areas within this segment support scattered oak woodlands and the San Timoteo Creek supports a well developed riparian community. The area immediately west of I-10, between MPs W26.5 to W27.1, is developed and supports little or no native vegetation. From the developed area to just northeast of San Timoteo Canyon Road (between MPs W27.1 and W29.4), the ROW is dominated by a mosaic of non-native grasslands, chaparral/grassland mixed communities, and patches of oak woodlands. Just east of San Timoteo Canyon Road, the ROW is dominated by agricultural activities. Prior to the 2005 fires, the native plant communities between San Timoteo Canyon Road and San Bernardino Junction were also dominated by a mosaic of non-native grasslands, mixed communities of sage scrub and chaparral and non-native grasses. Currently most of this area is recovering from the wildfire. The Proposed Project would cross numerous small drainages that do not support riparian habitat, but do carry water after rainfall events. Scattered residences, small developments, and agricultural areas also occur between San Timoteo Canyon Road and San Bernardino Junction.

Patches of oak woodland are present within the ROW west of I-10, between approximately MPs W26.9 and W27.1, and east of San Timoteo Canyon Road (at MP W28.9). Between MPs W29.6 and W29.7, the ROW crosses the riparian habitat in San Timoteo Creek. San Timoteo Canyon supports three types of riparian habitats that are considered sensitive by the CNDDB. These include Southern Cottonwood Willow Riparian Forest, Southern Sycamore Alder Riparian Woodland, and Southern Coast Live Oak Riparian Forest (CNDDB, 2005).

Special Status Plant and Wildlife Species

Plant Species

Two listed and two sensitive plant species have been documented within or adjacent to this segment of the Proposed Project. The Nevin's barberry and slender-horned spineflower are both federally and State listed endangered species and designated List 1B species by the CNPS. Suitable habitat and elevation requirements are present for these species, which are known to occur along the ROW at approximately MPs W38 and between MPs W39 to W41, respectively (BioResource, 2003). Jeager's milkvetch and Plummer's mariposa lily are both CNPS List 1B species. Jaeger's milkvetch has been documented at several locations near the western end of this segment, and Plummer's mariposa lily has been documented in chaparral habitat at two locations in this segment (BioResource, 2003). All of these plant species are covered by the WRMSHCP.

Four sensitive plant species, including Yucaipa onion, Parry's spineflower, California bedstraw, and Hall's monardella, have a high potential to occur in or adjacent to this segment. The last three of these species have been designated List 1B by the CNPS, and Parry's spineflower is designated a List 3 species. California bedstraw, which is also a BLM sensitive species, and Hall's monardella are known to occur near the western portion of this segment (CNDDB, 2005).

Four listed species of plants, including Munz's onion, San Diego ambrosia, San Jacinto Valley crownscale, and Santa Ana River woollystar, have a moderate potential to occur in this segment. All four plants are federally listed endangered species and designated List 1B species by the CNPS. The chaparral and grassland habitat within this segment could potentially support Munz's onion and San Diego ambrosia, which are also a State listed threatened species and BLM sensitive species, respectively. San Jacinto Valley crownscale is known to occur five miles south of the Proposed Project, and the habitats within the ROW would be considered marginally suitable. The Santa Ana River woollystar, also a State listed endangered species, has a moderate potential to occur along the western end of this segment where suitable habitat is limited to portions of San Timoteo Creek.

Seventeen sensitive plants have a moderate potential to occur along the ROW, including:

- chaparral sand-verbena
- smooth tarplant
- long-spined spineflower
- Many-stemmed dudleya
- round-leaved filaree
- Southern California black walnut
- Robinson's pepper-grass
- ocellated Humboldt lily
- Parish's bush mallow
- California muhly
- little mousetail
- Fish's milkwort
- Engelmann oak
- Parish's gooseberry
- Coulter's matilija poppy
- San Miguel savory
- San Bernardino aster

Eight of these sensitive plants species, as indicated above, are designated as List 1B species by the CNPS. In addition, many-stemmed dudleya is also a BLM sensitive species, and little mousetail is a federal species of concern. Chaparral sand-verbena may occur in the chaparral habitat in this segment. It has been documented east of this segment, but not within five miles of the proposed ROW. Smooth tarplant has been reported in San Timoteo Canyon and is known to occur at MP W35.2 (BioResource, 2003; CNDDB, 2005). Many-stemmed dudleya, Robinson's pepper-grass, Parish's bush mallow, and San Miguel savory all potentially occur because suitable chaparral or riparian habitat is present and the elevational requirements for these species are met. Little mousetail is known to occur in valley and foothill grasslands and vernal pools within western Riverside County only, and suitable grassland habitat for this species is present. Parish's gooseberry potentially occurs in the riparian woodland habitat in this segment. San Bernardino aster potentially occurs in the grassland and in San Timoteo creek. The other nine sensitive plant species have been designated as List 2, 3, or 4 species by the CNPS. All of these plant species, except for chaparral sand-verbena, Robinson's pepper-grass, Parish's gooseberry, and San Bernardino aster, are covered in the WRMSHCP.

Wildlife Species

Invertebrates. This segment does not support vernal pools or seasonally wet areas that would support fairy shrimp. In addition, this segment also does not support suitable habitat for any sensitive or listed species of insects.

Fishes and Amphibians. The intermittent nature of San Timoteo Creek is not conducive to supporting any listed or sensitive species of fishes. There have been no reported occurrences of listed or sensitive fish species within this segment, however, one sensitive amphibian, the western spadefoot toad may potentially occur there. The western spadefoot toad, a California special concern species and BLM sensitive species, is typically associated with grasslands and scrub habitats and it utilizes seasonal pools for breeding. This segment of the Proposed Project does not support seasonal pools; however the western spadefoot toad could potentially occur in the grasslands and or scrub habitats. This species has been observed in the Badlands area located approximately six miles south of this segment.

Reptiles. The following six sensitive reptile species have a moderate potential within or adjacent to the ROW of this segment:

- northern red-diamond rattlesnake
- San Diego horned lizard
- Belding's orange-throated whiptail
- silvery legless lizard
- rosy boa
- two-striped garter snake

All of these reptile species are California special concern species, except for the rosy boa, which is a BLM sensitive species. These reptiles are typically found in chaparral, coastal sage scrub, or grassland habitats and generally have been found within the region surrounding this segment of the ROW. The two-striped garter snake, also a BLM sensitive species, may occur in the riparian habitat in San Timoteo Creek. In addition, the northern red-diamond rattlesnake, San Diego horned lizard, and Belding's orange-throated whiptail are covered species in the WRMSHCP.

Birds. Two listed species of birds, the least Bell's vireo and southwestern willow flycatcher, both have a high potential to occur in or adjacent to the ROW of this segment. The least Bell's vireo, a federal and State listed endangered species, potentially occurs in the riparian habitat in San Timoteo Canyon. The most suitable habitat consists of those areas with a dense understory of willows and mulefat under a canopy of larger trees and shrubs. This species has been documented near Fisherman's Retreat Resort, which is located less than one mile to the north of the ROW (CNDDB, 2005), and could potentially

occupy habitat where the ROW would cross San Timoteo Creek. The southwestern willow flycatcher, also a federal and State listed endangered species, has been documented in San Timoteo Canyon, directly south of Redlands (CNDDB, 2005). The riparian habitat located where the ROW would cross the San Timoteo Creek could potentially support this species.

Six bird species have a high potential to occur in the ROW including:

- Cooper's hawk
- ferruginous hawk
- golden eagle
- loggerhead shrike
- California horned lark
- southern California rufous-crowned sparrow

All of these birds are California special concern species, and the golden eagle is also a CDFG fully protected species. Cooper's hawk, loggerhead shrike, and southern California rufous-crowned sparrow have been documented in San Timoteo Canyon, north of the border between San Bernardino and Riverside Counties and south of the City of Redlands (CNDDB, 2005). The loggerhead shrike would be expected to occur along much of this segment. The ferruginous hawk and golden eagle, which are both BLM sensitive species, likely forage over this segment of the Proposed Project, and the golden eagle may nest in the hilly areas. The grassland and open scrub habitats in this segment of the ROW could potentially support the foraging and nesting activities of the California horned lark. All of these bird species are covered in the WRCMSHCP.

The western yellow-billed cuckoo, which is a federal candidate species and State listed endangered species, and the following six sensitive bird species have a moderate potential to occur along this segment:

- white-tailed kite
- long-eared owl
- burrowing owl
- Bells' sage sparrow
- yellow warbler
- yellow-breasted chat

All of the sensitive bird species are California special concern species, except for the white-tailed kite, which is a CDFG fully protected species. The white-tailed kite and the burrowing owl, also a BLM sensitive species, may utilize the grasslands and open scrub habitats in this segment. In addition, the kite could potentially nest in the riparian habitat in San Timoteo Canyon. The long-eared owl may also utilize the riparian habitat and oaks trees in San Timoteo Canyon. The yellow warbler and yellow-breasted chat have both been documented in San Timoteo Canyon, and would be expected to utilize the riparian habitat within and adjacent to the proposed ROW (CNDDB, 2005). Bells' sage sparrow may potentially utilize the chaparral habitat in this segment.

Mammals. Three sensitive mammal species, including western yellow bat, northwestern San Diego pocket mouse, and Los Angeles pocket mouse, have a high potential to occur in or adjacent to the ROW in this segment. The mouse species are both California special concern species that are covered in the WRCMSHCP. The northwestern San Diego pocket mouse has been documented less than one mile north of the proposed ROW, and the Los Angeles pocket mouse has been documented at Norton Air Force Base, located approximately four miles northeast of the ROW (CNDDB, 2005).

Two federally listed endangered mammal species, the San Bernardino kangaroo rat and Stephens' kangaroo rat, have a moderate potential to occur in this segment. The primary San Bernardino kangaroo rat populations in western Riverside County are located in the San Jacinto River and Bautista Creek; however, smaller populations are historically known from Reche Canyon and the Bloomington area, which are slightly north and west of the Proposed Project, respectively. The Stephens' kangaroo rat,

which is also a State listed threatened species, could occur in open grasslands or sparse shrub lands within and adjacent to the ROW.

The following nine sensitive mammal species have a moderate potential to occur in or adjacent to the ROW of this segment:

- pallid bat
- Townsend's big-eared bat
- spotted bat
- fringed myotis
- western mastiff bat
- pocketed free-tailed bat
- San Diego black-tailed jackrabbit
- Dulzura pocket mouse
- San Bernardino white-eared pocket mouse

All of these sensitive mammal species are California special concern species, except for the fringed myotis, which is a BLM sensitive species. In addition, the pallid bat, Townsend's big-eared bat, western mastiff bat, and spotted bat are also BLM sensitive species. All of the bat species could potentially forage in this segment, and roost in trees or rocky outcrops that occur throughout the segment. San Diego black-tailed jackrabbit likely occurs in the grasslands and open shrub lands in this segment. The Dulzura pocket mouse potentially occurs in the softer soils in the scrub and chaparral habitats in this segment. The San Bernardino white-eared pocket mouse potentially occurs in the shrub land and woodland habitats in this segment.

Special Habitat Management Areas Overview

Western Riverside MSHCP

The Pass Area Plan. The portion of this segment of the ROW that falls within the Pass Area Plan is from the western boundary of this segment to near San Timoteo Canyon Road. The ROW crosses through criteria cells in the San Timoteo Creek Subunit, which are located near San Timoteo Canyon Road. These cells fall within the areas requiring focused surveys for narrow endemic plants, burrowing owl, Los Angeles pocket mouse, and San Bernardino kangaroo rat (in San Timoteo Creek). The ROW also crosses the Proposed Linkage 12 and lies west of Proposed Linkage 6, which are comprised of the riparian habitats associated with San Timoteo Creek. The Planning Species that are considered to use this Proposed Linkage 12 include yellow warbler, white-tailed kite, yellow-breasted chat, least Bell's vireo, and Los Angeles pocket mouse. This linkage is also considered to provide movement of common mammals, such as the bobcat, and provides a connection to San Bernardino County and Core Areas in the Badlands. Proposed Linkage 6 is an upland linkage connecting San Timoteo Creek and Core Areas in the Badlands to San Bernardino County. It provides habitat for raptors and movement for species, such as the bobcat, and provides a connection between San Bernardino County and San Timoteo Creek.

Reche Canyon/Badlands Area Plan. The portion of this segment of the ROW that falls within the Badlands North Subunit of the Reche Canyon/Badlands Area Plan extends from approximately the western boundary of Beaumont, near San Timoteo Canyon Road, to the San Bernardino Junction. This portion of the ROW falls within criteria cells for almost its entire length. These cells fall within the areas requiring focused surveys for narrow endemic plants, burrowing owl, Los Angeles pocket mouse, and San Bernardino kangaroo rat (in San Timoteo Creek). The ROW is located to the east of Proposed Linkage 5. Proposed Linkage 5 is comprised of the portion of San Timoteo Creek extending northwest from Redlands Boulevard to San Bernardino County. This linkage provides habitat for a number of Planning Species, including Los Angeles pocket mouse, yellow-breasted chat, least Bell's vireo, bobcat, and yellow warbler. This linkage also provides for movement of mountain lions and bobcats between San Bernardino County and Core Areas in the Badlands and Reche Canyon.

D.2.3.4 San Bernardino Junction to Vista Substation

Plant Communities and Sensitive Habitats

The dominant plant communities between the San Bernardino Junction and the Vista Substation include non-native grasslands and mixed sage scrub/non-native grasslands. These communities occur as a mosaic between San Bernardino Junction and the boundary between the Cities of Colton and Loma Linda (MP V1.9). Between MPs V1.9 and V2.7, the sage scrub becomes more dominant than the non-native grasslands. The ROW travels through residential areas between MP V2.7 and MP V3.0, and then traverses a mosaic of grassland and mixed sage scrub/grassland communities from MP V3.0 through MP V4.4. The ROW is developed from MP V4.4 to the Vista Substation.

This segment of the ROW contains patches of mixed Riversidean sage scrub/grassland and mixed coastal sage scrub/grassland communities. These communities are scattered along this segment and typically occur in small patches that correspond to a particular slope aspect. These communities would be considered somewhat disturbed due to the large amount of non-native grasses that are intermixed with the shrubs.

Special Status Plant and Wildlife Species

Plant Species

Two federal and State listed endangered plant species, Nevin's barberry and slender-horned spineflower, and one sensitive plant species, Jaeger's milkvetch, have been documented within or adjacent to the proposed ROW in this segment. Nevin's barberry is known to occur along the eastern end of this segment, with several occurrences documented between MPs V0 and V1 (BioResource, 2003). Slender-horned spineflower is known to occur on the floodplain of the Santa Ana River north of the City of Redlands, and along almost this entire segment (BioResource, 2003). Jaeger's milkvetch has been documented at several locations along this segment (BioResource, 2003). All of these documented plant species are CNPS List 1B species.

Three sensitive plant species have a high potential to occur along this segment of the ROW, including California bedstraw, Parish's desert-thorn, and Parry's spineflower. California bedstraw has been designated by CNPS as a List 1B species and is a BLM sensitive species. Parish's desert-thorn and Parry's spineflower are CNPS List 2 and 3 species, respectively.

Three federally listed endangered and CNPS List 1B species of plants, including Munz's onion, San Diego ambrosia, and Santa Ana River woollystar, have a moderate potential to occur within this segment. In addition, Munz's onion is a State listed threatened species and San Diego ambrosia is a BLM sensitive species. The chaparral and grassland habitat within this segment could potentially support Munz's onion and San Diego ambrosia. The Santa Ana River woollystar, also a State listed endangered species, has been documented within five miles of this segment; however, the area in the vicinity of the Vista Substation was determined to have unsuitable habitat for this species (BioResource, 2003).

The following 16 sensitive plants have a moderate potential to occur along the ROW:

- chaparral sand-verbena
- long-spined spineflower
- Many-stemmed dudleya
- round-leaved filaree
- Southern California black walnut
- Robinson's pepper-grass
- ocellated Humboldt lily
- Parish's bush mallow
- Pringle's monardella
- California muhly
- little mousetail
- Fish's milkwort
- Engelmann oak
- Parish's gooseberry
- Coulter's Matilija poppy
- San Miguel savory

As indicated above, six of the sensitive plant species are designated as List 1B species by the CNPS with the remainder designated as List 2, 3, or 4 species. In addition, to these CNPS designations the many-stemmed dudleya is a BLM sensitive species, and little mousetail is a federal species of concern. Chaparral sand-verbena may occur in the chaparral habitat in this segment. Many-stemmed dudleya is known to occur 10 miles west of the Vista Substation (BioResource, 2003). Robinson's pepper-grass, Parish's bush mallow, and San Miguel savory all potentially occur because suitable chaparral or riparian habitat is present within this segment. Pringle's monardella has a moderate potential to occur according to the criteria for occurrence. The habitat along this segment of the ROW was deemed as unsuitable for this species (BioResource, 2003). This species is presumed to be extinct according to the CNDDB but it is has been historically reported 4 miles northwest of Grand Terrace (CNDDB, 2005). Little mousetail is known to occur in valley and foothill grasslands and vernal pools within western Riverside County only, and suitable grassland habitat is present within this segment. Parish's gooseberry potentially occurs in the riparian woodland habitat in this segment. San Bernardino aster potentially occurs in the grassland and in San Timoteo creek. The closest known occurrence is 4 miles southeast of Banning (CNDDB, 2005).

Wildlife Species

Invertebrates. This segment of the ROW is not known to support any listed or sensitive invertebrates. Vernal pools were not documented during any of the project surveys; however, fairy shrimp were found in seasonally wet road ruts near Reche Canyon (ECORP Consulting, Inc. 2005). The fairy shrimp species found in these road ruts was determined to be the common, non-sensitive species. There are no known occurrences of the listed fairy shrimp within five miles of this segment of the ROW.

Fishes and Amphibians. There have been no reported occurrences of listed or sensitive fish or amphibian species within this segment of the ROW. However, the western spadefoot toad, a California special concern species and BLM sensitive species, may potentially occur in this segment. This species is typically associated with grasslands and scrub habitats and it utilizes seasonal pools for breeding. Seasonally wet road ruts could potentially support the breeding activities of the western spadefoot toad.

Reptiles. Five sensitive reptile species, including northern red-diamond rattlesnake, San Diego horned lizard, Belding's orange-throated whiptail, silvery legless lizard, and rosy boa, have a moderate potential within or adjacent to the ROW of this segment. All of these species are California special concern species, except for the rosy boa, which is a BLM sensitive species. All of these species are typically found in chaparral, coastal sage scrub, or grassland habitats and generally have been found within the region surrounding this segment of the ROW.

Birds. The coastal California gnatcatcher, a federally listed threatened species and California special concern species, has a high potential to occur in this segment. The habitat between Barton Road near Reche Canyon, east to the San Bernardino Substation may be considered somewhat suitable for this

species (BioResource, 2003). Much of the habitat in this segment is disturbed due to the presence of non-native grasses or it is monotypic and dominated by California buckwheat. The coastal sage scrub in this segment lacks some of the plant species diversity that is found in typical habitat for the California gnatcatcher.

Four California special concern bird species, including Cooper's hawk, burrowing owl, loggerhead shrike, and southern California rufous-crowned sparrow, have a high potential to occur in this segment. The Cooper's hawk likely forages within this segment of the ROW. Both the burrowing owl, which is also a BLM sensitive species, and loggerhead shrike have been documented at March Air Force Base, located approximately 10 miles south of this segment (CNDDB, 2005). The southern California rufous-crowned sparrow likely occurs in the scrub habitats in the hilly areas within this segment.

Two sensitive bird species, the white-tailed kite and Bell's sage sparrow, have a moderate potential to occur along this segment of the ROW. The white-tailed kite, a CDFG fully protected species, has been documented more than five miles away; however, suitable foraging habitat is present in this segment. Bell's sage sparrow, a California special concern species, has been documented more than five miles from this segment; however, the chaparral habitat in this segment would be considered suitable habitat for this species.

Mammals. One listed and three sensitive mammal species have a high potential to occur in or adjacent to the ROW of this segment. The San Bernardino kangaroo rat, a federally listed endangered species and California special concern species, has a high potential to occur in this segment of the ROW. As stated for the Calimesa and San Timoteo Canyon segment, primary and smaller historic populations of the San Bernardino kangaroo rat exist within and in the vicinity of the ROW of this segment. The three sensitive mammal species that have a high in this segment include: western yellow bat, northwestern San Diego pocket mouse, and Los Angeles pocket mouse. The western yellow bat and northwestern San Diego pocket mouse have both been documented in the vicinity of the City of Redlands from three to seven miles from northeast of the proposed ROW (CNDDB, 2005). The Los Angeles pocket mouse has been documented south of the Santa Ana River Wash and east of the City of Colton, approximately one mile northeast of the ROW (CNDDB, 2005).

Several sensitive mammal species, including the following species, have a moderate potential to in this segment:

- pallid bat
- Townsend's big-eared bat
- spotted bat
- fringed myotis
- western mastiff bat
- big free-tailed bat
- San Diego black-tailed jackrabbit
- Dulzura pocket mouse
- southern grasshopper mouse
- American badger

All of these sensitive mammal species are California special concern species, except for the fringed myotis, which is a BLM sensitive species. All of the bat species could potentially forage in this segment of the ROW, and roost in trees or rocky outcrops that occur in this segment. San Diego black-tailed jackrabbit likely occurs in the grasslands and open shrub lands in this segment of the ROW. The Dulzura pocket mouse potentially occurs in the softer soils in the scrub and chaparral habitats in this segment. The southern grasshopper has been documented at March Air Force Base, which is less than five miles from this segment. Only limited suitable habitat for the American badger may still exist in the undisturbed portions of this segment.

Special Habitat Management Areas Overview

Western Riverside MSHCP

Reche Canyon/Badlands Area Plan. The portion of this segment of the ROW that falls within the Badlands North Subunit of the Reche Canyon/Badlands Area Plan extends from San Bernardino Junction north to the Riverside County line. This portion of the ROW falls within criteria cells for almost its entire length in Riverside County. These cells fall within the areas requiring focused surveys for narrow endemic plants, burrowing owl, Los Angeles pocket mouse, and San Bernardino kangaroo rat (in San Timoteo Creek). The ROW is located to the east of Proposed Linkage 5. Proposed Linkage 5 is comprised of the portion of San Timoteo Creek extending northwest from Redlands Boulevard to San Bernardino County. This linkage provides habitat for a number of Planning Species, including Los Angeles pocket mouse, yellow-breasted chat, least Bell's vireo, bobcat, and yellow warbler. This linkage also provides for movement of mountain lions and bobcats between San Bernardino County and Core Areas in the Badlands and Reche Canyon.

D.2.3.5 San Bernardino Junction to San Bernardino Substation

Plant Communities and Sensitive Habitats

This segment of the ROW is primarily dominated by developed areas. Undeveloped areas are present between the San Bernardino Junction and the residential area located approximately 0.5 miles north (between MPs W40.2 and W40.7). These areas are dominated by non-native grasslands with a few patches of sage scrub communities and mixed sage scrub/grassland communities. Between MPs 40.7 and the San Bernardino Substation, the proposed ROW is dominated by residential uses, parks, and agricultural areas. The San Bernardino Substation is located approximately 0.5 miles southeast of the Santa Ana River.

This developed and disturbed portion of this segment of the ROW does not support any sensitive vegetation communities. The mixed sage scrub communities that are sparsely distributed near the San Bernardino Junction would be considered partially disturbed due to the presence of the non-native grasses.

Special Status Plant and Wildlife Species

Plant Species

The slender-horned spineflower, a federal and State listed endangered species and CNPS List 1B species, has been documented within or adjacent to this segment of the ROW. Slender-horned spineflower is known to occur on the floodplain of the Santa Ana River north of the City of Redlands, approximately two miles northeast of the ROW (CNDDB, 2005).

According to the potential for occurrence criteria, the Santa Ana River woollystar has a high potential to occur in the northern portion of this segment because this species has been documented within three miles of this segment in the Santa Ana River channel (BioResource, 2003). However, the habitat in this segment of the ROW would not be considered suitable for this species because it is primarily developed or disturbed by human activities. Therefore, this species likely has a low potential for occurrence in this segment of the ROW.

Four sensitive plants have a high potential to occur along this segment of the ROW, including Jaeger's milkvetch, Parry's spineflower, California bedstraw, and Parish's desert-thorn. Two of these species, Jaeger's milkvetch and California bedstraw, are CNPS List 1B species. Jaeger's milkvetch may be found

in grasslands of scrub habitats and due to the close proximity of known locations, this species may occur in the undeveloped areas between San Bernardino Junction and San Bernardino Substation. California bedstraw, which is also a BLM sensitive species, is known to occur within one mile of this segment in Reche Canyon (CNDDB, 2005). Parish's desert-thorn and Parry's spineflower are designated as CNPS List 2 and 3 species, respectively.

Seven sensitive plants have a moderate potential to occur along the ROW, including the following:

- chaparral sand-verbena
- round-leaved filaree
- ocellated Humboldt lily
- Pringle's monardella
- California muhly
- little mousetail
- Parish's gooseberry

As indicated above, two of the sensitive plant species are designated as List 1B species by the CNPS with the remainder designated as List 2, 3, or 4 species. In addition, to these CNPS designations the little mousetail is a federal species of concern. Chaparral sand-verbena may occur in the chaparral habitat in this segment, while Parish's gooseberry potentially occurs in the southern portion of this segment.

Wildlife Species

Invertebrates. This segment of the ROW is not known to support any listed or sensitive invertebrates. Vernal pools were not documented during any of the surveys conducted for this project.

Fishes and Amphibians. There have been no reported occurrences of listed or sensitive fish or amphibian species within this segment of the ROW. Suitable aquatic habitat for sensitive and listed fish species is not present in this segment. However, the western spadefoot toad, a California special concern species and BLM sensitive species, may potentially occur in the southern portion of this segment where suitable scrub and grassland habitats exist.

Reptiles. Five sensitive reptile species, including northern red-diamond rattlesnake, San Diego horned lizard, Belding's orange-throated whiptail, silvery legless lizard, and rosy boa, have a moderate potential to occur in the native habitats in the southern portion of this segment. All of these species are California special concern species, except for the rosy boa, which is a BLM sensitive species. These species are typically found in chaparral, coastal sage scrub, or grassland habitats and generally have been found within the region surrounding this segment.

Birds. The burrowing owl, a California special concern species and BLM sensitive species, has a high potential to occur in this segment because this species has been observed less than five miles from this segment, and the agricultural areas and open disturbed areas could potentially provide habitat for this species.

Three listed species of birds, the least Bell's vireo, western yellow-billed cuckoo, and coastal California gnatcatcher have a potential to occur in portions of this segment or in adjacent areas. The vireo and the cuckoo have been documented in the Santa Ana River Wash within five miles of this segment. Both species are State listed endangered species, while the cuckoo is also a federal species of concern and the vireo is a federally listed endangered species. However, suitable habitat for these species does not occur within this segment, therefore these species would not be expected to occur. The California gnatcatcher, a federally listed threatened species and California special concern species, has a moderate potential to occur in the scrub habitat located in the southern portion of this segment. This species has also been documented in the Santa Ana River Wash in (CNDDB, 2005).

Three California special concern bird species were determined to have a moderate potential to occur within or adjacent to this segment. These species include Cooper's hawk, California horned lark, and tri-colored blackbird. The Cooper's hawk is typically found in urban areas where there are trees for roosting and nesting. This species has been documented in San Timoteo Canyon, north of the border between San Bernardino and Riverside Counties (CNDDB, 2005). The California horned lark may potentially occur in the open grasslands, agricultural areas, and open scrub habitats within portions of this segment. The tri-colored blackbird is considered unlikely to occur within this segment because its typical wetland habitat does not exist.

Mammals. Two sensitive mammal species, western yellow bat and northwestern San Diego pocket mouse, have a high potential to occur within this segment of the ROW. The northwestern San Diego pocket mouse is a California special concern species.

One listed mammal species, the San Bernardino kangaroo rat, has a moderate potential to occur in this segment because it has been documented approximately a 0.5 miles northeast of this segment (CNDDB, 2005). Marginally suitable habitat is present in this segment of the ROW.

Five sensitive mammal species have a moderate potential to occur in or adjacent to this segment, including Townsend's big-eared bat, fringed myotis, Dulzura pocket mouse, pallid San Diego pocket mouse, and American badger. All of these sensitive mammal species are California special concern species, except for the fringed myotis, which is a BLM sensitive species. The bat species could potentially forage in this segment of the ROW, and roost in trees or rocky outcrops that occur in the southern portion of this segment. The Dulzura pocket mouse potentially occurs in the softer soils in the scrub and chaparral habitats in the southern portion of this segment. The pallid San Diego pocket mouse may occur near the northern portion of this segment, because the soft soils in the Santa Ana River Wash provide suitable soils for burrow construction. Only limited suitable habitat for the American badger may still exist in the undisturbed portions of this segment.

Special Habitat Management Areas Overview

This segment of the ROW does not fall within any special habitat management areas.

D.2.4 Applicable Regulations, Plans, and Standards

Federal

National Environmental Policy Act

NEPA (42 U.S.C. 4321 et seq.) declares a continuing federal policy that directs "a systematic, interdisciplinary approach" to planning and decision-making and requires environmental statements for "major Federal actions significantly affecting the quality of the human environment." Implementing regulations by the Council on Environmental Quality (CEQ) (40 CFR Parts 1500-1508) requires federal agencies to identify and assess reasonable alternatives to proposed actions that will restore and enhance the quality of the human environment and avoid or minimize adverse environmental impacts. Federal agencies are further directed to emphasize significant environmental issues in project planning and to integrate impact studies required by other environmental laws and Executive Orders into the NEPA process. The NEPA process should therefore be seen as an overall framework for the environmental evaluation of federal actions.

Federal Land Policy Management Act

The designation of ACECs was authorized in Section 202 (c)(3) of the Federal Land Policy Management Act (FLPMA) of 1976, and was designed to be used as a process for determining the special management required by certain environmental resources or hazards (BLM, 1999). Specific information regarding the Federal Land Policy Management Act is contained in Section D.5.4 Wilderness and recreation of this document.

Endangered Species Act of 1973

The Endangered Species Act (ESA) (16 U.S.C. 1531-1543) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend.

- **Section 7** requires federal agencies, in consultation with, and with the assistance of the Secretary of the Interior or the Secretary of Commerce, as appropriate, to insure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) share responsibilities for administering the Act. Regulations governing interagency cooperation under Section 7 are found at 50 CFR Part 402. The opinion issued at the conclusion of consultation will include a statement authorizing a take that may occur incidental to an otherwise legal activity.
- **Section 9** lists those actions that are prohibited under the Act. Take of a species listed in accordance with the Act is prohibited. There are two processes whereby a take is allowed when it is incidental to an otherwise legal activity. Section 9 of the Act prohibits (i.e., to harass, harm, pursue, hunt, wound, kill, etc.) of listed species of fish, wildlife, and plants without special exemption. "Harm" is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or shelter. "Harass" is further defined as actions that create the likelihood of injury to listed species to an extent as significantly disrupt normal behavior patterns which include, but not limited to, breeding, feeding, and shelter.
- **Section 10** provides a means whereby a non-federal action with a potential to result in the take of a listed species could be allowed under an incidental take permit. Application procedures are found at 50 CFR Parts 13 and 17 for species under the jurisdiction of USFWS and 50 CFR Parts 217, 220, and 222 for species under the jurisdiction of NMFS.

Bureau of Land Management

BLM Sensitive Species are species designated by the State Director that are not already federally listed, proposed, or candidate species, or State listed because of potential endangerment. BLM's policy is to "ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as threatened or endangered."

Under the federal administration of the Department of Interior, the BLM maintains a list of special status plant and wildlife species for each Field Office management area within Arizona. The November 4, 2005 *BLM Instructional Memorandum No. AZ-2006-002, Change 1 Concerning Updated BLM Sensitive Species for Arizona* contains a list of protected plant and wildlife species for each Field Office of the BLM in Arizona.

Sensitive (S): Species of native plants and wildlife species that are considered Sensitive by the BLM when occurring on BLM-administered lands.

The BLM-administered lands within the Arizona segments of the Proposed Project are within territory of the Phoenix District Office and Yuma Field Office (YFO). This includes a total of 32 Sensitive status plant and wildlife species which were considered for the Proposed Project. The list for the Phoenix District Office includes seven plant species, seven mammal species, one bird species, three reptile species, no amphibian species, five fish species, and two invertebrate species for a total of 25 species. The list for the Yuma Field Office includes six plant species, seven mammal species, one bird species, three reptile species, no amphibian species, one fish species, and two invertebrate species for a total of 20 species. The BLM Yuma Field Office (YFO) is in the process of preparing a Resource Management Plan (RMP) and EIS to manage pubic lands within its planning area. The process was initiated March 30, 2004, with the publication of a Notice of Intent in the Federal Register.

The BLM-administered lands within the California segments of the Proposed Project are within territory of the Palm Springs Office. The Palm Springs South Coast Field Office manages approximately 1.7 million acres of public land in five geographic segments of southern California. The Palm Springs South Coast Field Office manages some of the most accessible desert recreation and wilderness areas available to the public and the area sup[ports a diverse array of sensitive plants and wildlife (http://www.blm.gov/ca/palmsprings). The list for the Palm Springs office contains over 20 sensitive wildlife species that may occur in the Proposed Project area.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711) is a treaty signed by the United States, Canada, Mexico, and Japan that makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season. The Act states that it is unlawful to take, pursue, molest, or disturb bald (American) and golden eagles, their nests, or their eggs anywhere in the United States.

Wild and Free-Roaming Horses and Burros Act

Wild horses and burros are protected by the Wild and Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195). The Wild Free-Roaming Horses and Burros Act of 1971 gave BLM and USFS the authority to manage, protect, and control wild horses on the nation's public rangelands to ensure healthy herds and healthy rangelands. The act states that "wild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West." Wild free-roaming horses and burros are protected from capture, branding, harassment, or death.

A wild free-roaming horse or burro, as defined by federal law, is an unbranded, unclaimed, free-roaming horse or burro found on Western public rangelands administered by BLM and USFS. Wild horses and burros are descendants of animals released by or escaped from Spanish explorers, ranchers, miners, U.S. Cavalry, or Native Americans. Within most herd areas, wild horses and burros graze with domestic livestock and a variety of indigenous wildlife species. Because they are generalist species, wild horses and burros inhabit a variety of habitats and vegetative communities.

Spreading across the border of Arizona and California, the Cibola-Trigo Herd Management Area (HMA) extends from Imperial Dam, west of the Colorado River, to Walters Camp in California. Located pri-

marily between U.S. 95 and the Colorado River and I-8 and I-10, the HMA is about 20 miles north of Yuma, Arizona. The wild burros and horses of Cibola-Trigo HMA are managed in an ecological balance within their habitat to protect the forage plants. This ensures that there is plenty of feed for the burros, as well as for wildlife species. When the population exceeds the Appropriate Management Level, as determined through vegetative monitoring studies, BLM will remove some of the animals and offer them to the public through BLM's Adopt a Wild Horse or Burro Program (http://www.blm.gov/az/whb/mapcibola.html).

Clean Water Act

The Clean Water Act (CWA) (33 U.S.C. 1251-1376) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

- **Section 401** requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the United States must obtain a State certification that the discharge complies with other provisions of CWA. The Regional Water Quality Boards administer the certification program in California.
- **Section 402** establishes a permitting system for the discharge of any pollutant (except dredge or fill material) into waters of the United States.
- **Section 404** establishes a permit program administered by the Army Corps of Engineers (ACOE) regulating the discharge of dredged or fill material into waters of the United States, including wetlands. Implementing regulations by ACOE are found at 33 CFR Parts 320-330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines and were developed by the Environmental Protection Agency (EPA) in conjunction with ACOE (40 CFR Parts 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Section 10 of the Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act (33 U.S.C. 401 et seq.) is administered by ACOE. This section requires permits in navigable waters of the U.S. for all structures such as riprap and activities such as dredging. Navigable waters are defined as those subject to the ebb and flow of the tide and susceptible to use in their natural condition or by reasonable improvements as means to transport interstate or foreign commerce. The ACOE grants or denies permits based on the effects on navigation. Most activities covered under this act are also covered under Section 404 of CWA.

Bald Eagle Protection Act of 1940

The Bald Eagle Protection Act of 1940 (16 U.S.C. 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this Act.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. 661-666) applies to any federal project where the waters of any stream or other body of water are impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with USFWS and the appropriate State wildlife agency. These agencies prepare reports and recommendations that document project effects on wildlife and identify measures that may be adopted to prevent loss or damage to wildlife resources. The term “wildlife”

includes both animals and plants. Provisions of the Act are implemented through the NEPA process and Section 404 permit process.

National Wild and Scenic Rivers Act

The National Wild and Scenic Act (16 U.S.C. 1271-1287) is administered by a variety of State and federal agencies. Designated river segments flowing through federally managed lands are administered by the land managing agency, such as U.S. Forest Service, BLM, and the National Park Service. River segments flowing through private lands are administered by the Resources Agency in conjunction with local government agencies. The Act prohibits federal agencies from activities that would adversely affect the values for which the river was designated.

National Wildlife Refuge System Administration Act of 1966

The National Wildlife Refuge System Administration Act of 1966 (42 U.S.C. 668dd, enacted by Pub. L. No. 91-135 as amended) provides guidelines and directives for the administration and management of all lands within the system, including "wildlife refuges, areas for the protection and conservation of fish and wildlife that are threatened with extinction, wildlife ranges, game ranges, wildlife management areas, or waterfowl production areas." The Secretary of the Interior is authorized to permit by regulations the use of any area within the system provided "such uses are compatible with the major purposes for which such areas were established."

Executive Order 11988 Floodplain Management

This order directs all federal agencies to avoid the long-term and short-term adverse impacts associated with floodplain modification, and to avoid direct or indirect support of floodplain development whenever there is a practicable alternative.

Executive Order 11990 Protection of Wetlands

This order establishes a National policy to avoid adverse impacts on wetlands whenever there is a practicable alternative.

State

Arizona

- Arizona Native Plant Law (Arizona Revised Statute §3-904)
- The 1996 Arizona Game and Fish Department Publication *Wildlife of special concern in Arizona*.
- December 2004, Lower Colorado River Multi-Species Conservation Program (Bureau of Reclamation)

Arizona Game and Fish Department

The Arizona Game and Fish Department (AGFD) proposed a list of special status plant and wildlife species, as presented under State authority in the 1996 document entitled *Wildlife of special concern in Arizona*. Although this document is still in preparation and has not been approved by the AGFD Commission, it is widely used by agencies and land managers for guidance and information. This list of Wildlife of Special Concern in Arizona (WSCA) includes 116 plant and wildlife species or subspecies. Most are listed because of significant habitat losses and threats, and in addition, many are also federally listed

under the ESA. Additionally, the AGFD maintains a statewide database, known as the Heritage Data Management System (HDMS), which tracks records of occurrence for federally listed species or other species of special concern within Arizona and also sensitive areas, such as bat colonies and areas of designated critical habitat.

> **Wildlife of Special Concern in Arizona (WSCA)**: Species of wildlife with habitats and/or populations that are threatened, and with a high probability of extinction and/or extirpation in Arizona. There are four categories within the WSCA list: (1) extinct and/or extirpated species, such as those species or subspecies that are no longer extant in the wild or in captivity, anywhere in Arizona, (2) endangered species, such as those species or subspecies either extirpated from Arizona since the mid-1800s and/or for which extinction or extirpation is highly probable unless conservation efforts are undertaken soon, (3) threatened species, such as those species or subspecies whose continued presence in Arizona could be in jeopardy in the near future. Serious threats have been identified and populations are either lower than they were historically or extremely local and small, and (4) candidate species, such as those species or subspecies for which threats are known or suspected, but for which substantial population declines from historical levels have not been documented (though they appear likely to have occurred).

A total of 36 WSCA species were considered for the Proposed Project; these were species for which the AGFD has records of occurrence within Maricopa and/or La Paz Counties. For the Proposed Project, the AGFD was contacted in order to obtain a list of all records within the HDMS for any special status species, including WSCA species. This search revealed recorded locations of seven special status species within a 3-mile buffer of the Proposed Project alignment.

Arizona Department of Agriculture

The Arizona Native Plant Law (ANPL) as outlined in Arizona Revised Statute §3-904 provides protection to nearly 200 native plant species known to occur in Arizona. This Law does not prevent the clearing of land, but requires that the Arizona Department of Agriculture (ADA) is notified prior to the commencement of any land clearing activities. Additionally, a permit is necessary in certain circumstances in order to remove these native plants. The State of Arizona has four categories for special status plants and below are the definitions for the categories as provided under Arizona Revised Statute §3-904.

> **Highly Safeguarded (HS).** This category includes those species of native plants and parts of plants, including the seeds and fruit, whose prospects for survival in this State are in jeopardy or which are in danger of extinction throughout all or a significant portion of their ranges, and those native plants which are likely within the foreseeable future to become jeopardized or in danger of extinction throughout all or a significant portion of their ranges. This category also includes those plants resident to this State and listed under the ESA and/or other special protection statuses.
>
> **Salvage Restricted (SR).** This category includes those species of native plants to be afforded the exclusive protections involving the use of salvage permits, tags, and seals. This category includes those native plants that are not included in the highly safeguarded category, but are nevertheless subject to a high potential for damage by theft or vandalism.
>
> **Salvage Assessed (SA).** This category includes those species of native plants to be afforded the exclusive protections, involving the use of salvage tags and seals and annual salvage permits. This category includes those native plants that are not included in either the highly

safeguarded or salvage restricted categories, but nevertheless have a sufficient value if salvaged to support the cost of salvage tags and seals.

Harvest Restricted (HR). This category includes those species of native plants to be afforded the exclusive protections involving the use of harvest permits and wood receipts. This category includes those native plants that are not included in the highly safeguarded category, but are subject to excessive harvesting or over-cutting because of the intrinsic value of their by-products, fiber, or woody parts.

There are over 200 plant species in the above-listed categories, and all were considered for the Proposed Project, including all Highly Safeguarded plant species, Salvage Restricted plant species, Salvage Assessed plant species, and Harvest Restricted plant species. A complete list of the plant species as protected by this law can be obtained from the ADA's website (http://www.azda.gov/ESD/protplantlst.htm).

California

California Environmental Quality Act

CEQA (P.R.C. 21000 et seq.) establishes State policy to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures. CEQA applies to actions directly undertaken, financed, or permitted by State lead agencies. Regulations for implementation are found in the State CEQA Guidelines published by the California Resources Agency. These guidelines establish an overall process for the environmental evaluation of projects that is similar to that promulgated under NEPA (see NEPA discussion above). The Guidelines also make provisions for joint NEPA/CEQA documents.

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code 2050 et seq.) establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no State agency consultation procedures under CESA. For projects that affect both a State and federal listed species, compliance with the Federal Endangered Species Act (FESA) will satisfy CESA if the Department of Fish and Game CDFG determines that the federal incidental take authorization is "consistent" with CESA under Fish and Game Code Section 2080.1. For projects that will result in a take of a State-only listed species, the Applicant must apply for a take permit under Section 2081(b).

Native Plant Protection Act

California's Native Plant Protection Act (NPPA) (Fish and Game Code 1900-1913) requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of NPPA prohibit the taking of listed plants from the wild and require notification of the CDFG at least 10 days in advance of any change in land use. This allows CDFG to salvage listed plant species that would otherwise be destroyed. The Applicant is required to conduct botanical inventories and consult with CDFG during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

California Desert Plant Protection Act

The California Desert Protection Act was signed into law in 1994 and designated nearly 3.5 million acres of BLM land in the California desert as new wilderness areas. The Act also established protection for critical habitat for desert tortoise and bighorn sheep.

California Wild and Scenic Rivers Act

This California Wild and Scenic Rivers Act (P.R.C. 5093.50 et seq.) preserves certain designated rivers in their free-flowing state. These rivers must possess extraordinary scenic, recreational, fishery, or wildlife values. The California Resources Agency is responsible for coordinating activities of State agencies that may affect these designated rivers.

Streambed Alteration Agreements, California Fish and Game Code Sections 1601 1603

Under these sections of the Fish and Game Code, the Applicant is required to notify CDFG prior to constructing any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFG is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

D.2.5 Significance Criteria and Approach to Impact Assessment

This section explains how impacts are assessed in Section D.2, and in Section D.2.5.1 presents the significance criteria on which impact determinations are based. In addition, Section D.2.5.2 lists the Applicant Proposed Measures relevant to Section D.2, and Section D.2.5.3 lists all impacts identified for the Proposed Project and alternatives.

D.2.5.1 Significance Criteria

The Proposed Project would have a significant impact to biological resources, if it would:

- Have a substantial adverse effect on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG, AGFD, BLM, or USFWS.
- Have an adverse effect, either directly, through habitat modifications, or through introduction of non-native species, on any species listed as endangered, threatened, or proposed or critical habitat for these species.
- Have a substantial adverse effect, either directly, through habitat modification, or through introduction of non-native species, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG, AGFD, BLM or, USFWS.
- Have a substantial adverse effect on federally protected water quality or wetlands as defined by Sections 401 and 404 of the Clean Water Act, respectively (including, but not limited to riparian, marsh, vernal pool, and desert wash) through direct removal, filling, hydrological interruption, or other means

- Interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with local policies or ordinances protecting biological resources, such as a tree or cactus preservation policy or ordinance.
- Conflict with the provisions of a National Wildlife Refuge (Kofa) or an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or State HCP.

D.2.5.2 Applicant Proposed Measures

Applicant Proposed Measures (APMs) were identified by SCE in its CPCN Application to the CPUC. Table D.2-6 presents the APMs that are relevant to this section. Impact analysis assumes that all APMs will be implemented as defined in the table; additional mitigation measures are recommended in this section if it is determined that APMs do not fully mitigate the impacts for which they are presented.

Table D.2-6. Applicant Proposed Measures – Biological Resources

APM No.	Description
APM B-1 Vegetation	Avoid direct disturbance of highly sensitive features (as identified in E. Linwood Smith's (1985) Impact Assessment/Mitigation Planning Chart; see Appendix E) with spanning and careful local adjustment in tower footing placement. (BLM B-5.1 Vegetation) [Note: The reference to Appendix E is unknown. There is no Appendix E as part of the BLM right-of-way grant (provided from PEA Appendix A). However, the Smith report itself is found in FSEIS (1988) as Appendix B, Study of Desert Bighorn Sheep.]
APM B-2 Vegetation	Avoid the introduction of noxious weeds and/or other invasive species through standard noxious weed measures. This will benefit most of the species covered by the [Coachella Valley Multiple Species Habitat Conservation] plan.
APM B-3 Vegetation	Vehicular travel must be on established roads to the maximum extent practicable. Any off-road vehicle use should be strongly discouraged. This will benefit many of the species covered by the [Coachella Valley Multiple Species Habitat Conservation] plan.
APM B-4 Vegetation/ Wildlife	Avoid sand compaction at all sites in the Coachella Valley. This will benefit such species as the giant sand treader cricket, Coachella Valley Jerusalem cricket, and Coachella Valley milkvetch.
APM B-5 Vegetation/ Wildlife	Copper Bottom Pass: • Maintenance of low speed limit on right of way ROW to protect desert animals and reduce dust • Continuous application of water to ROW roads to reduce dust • Requirement that stopped vehicles stop engines if stationary for a determined period of time • Requirement that operators of vehicles, if stopped for longer than a determined period of time, inspect under their vehicles to ensure that no animals have taken shelter from the sun; this requirement has been implemented before by requiring that vehicles with stopped engines have their keys placed under the vehicle thus forcing the operator to inspect • Flagging of all disturbed areas if needed to clarify drive-able or walk-able areas • Tight control of the Copper Bottom Pass area to ensure that only planned construction traffic is allowed in the area and that minimal trips are planned • Restricted use of the area to periods outside of any animal breeding seasons • Tight control on electrical workers for approved hours of access • Ensure that all workers accessing this area have completed environmental awareness training for biological and cultural sensitivities; all trained workers would be equipped with stickers for their hardhats to provide for easy-to-spot inspection • Removal of all construction debris from the area at the conclusion of the work
APM B-6 Vegetation	Avoid vehicular travel in washes to protect triple-ridged milkvetch.

Table D.2-6. Applicant Proposed Measures – Biological Resources

APM No.	Description
APM B-7 Vegetation/ Wildlife	No activities whatever should occur in wetland areas.
APM B-8 Vegetation	Provide additional detailed surveys and tower-specific adjustments as needed prior to construction for major sensitive feature sites (e.g., concentrations of sensitive plants, individual palm trees, woody dune or wash communities) which cannot be easily avoided by spanning. (See Appendix B of the Devers–Palo Verde No. 2 EIR [1987] and Appendix E of the SEIS [1988].) The methodologies and results of these surveys must be submitted to and approved in writing by the BLM Authorized Officer.
APM B-9 Vegetation	Initiate transplant efforts for *Ferocactus* and *Coryphantha* as soon as probable losses can be determined. Any plans for transplanting must be developed in consultation with a BLM botanist and approved in writing by the BLM Authorized Officer.
APM B-10 Vegetation	The right-of-way Holder[4] will have the Arizona State Department of Agriculture and Horticulture identify native plants that would otherwise be destroyed by construction and sell them to the Holder.
APM B-11 Vegetation	The Authorized Officer may require vegetation in certain areas to be cleared by hand tools. Scalping of top soil and removal of low growing vegetation will not be allowed unless authorized by the Authorized Officer.
APM B-12 Vegetation	Where possible, towers or access roads will be located so as to avoid sensitive plants or plant communities. Where this is not feasible, affected individual plants will be transplanted. Towers will also be placed so that lines will span critical wildlife habitat.
APM B-13 Vegetation	Tower sites will be selected to allow maximum spacing of sensitive features.
APM B-14 Vegetation	Minimize the area needed for equipment operation and material storage and assembly.
APM B-15 Wildlife	In the vicinity of the Colorado River, existing tower spacings and conductor heights will be matched to the extent practical. This would reduce the potential for bird collisions with the power line.
APM B-16 Wildlife	Surveys - When access along the utility corridor already exists, pre-construction surveys for transmission lines should provide 100 percent coverage for any areas to be disturbed and within a 100-foot buffer around the areas of disturbance. When access along the utility corridor does not already exist, pre-construction surveys for transmission lines should follow standard protocol for linear projects.
APM B-17 Wildlife	Access - To the maximum extent possible, access for transmission line construction and maintenance should occur from public roads and designated routes.
APM B-18 Wildlife	Disturbed areas - To the maximum extent possible, transmission pylons and poles, equipment storage areas, and wire-pulling sites should be sited in a manner that avoids desert tortoise burrows.
APM B-19 Wildlife	Restoration - Whenever possible, spur roads and access roads and other disturbed sites created during construction should be recontoured and restored.
APM B-20 Wildlife	Ravens - All transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS's Division of Law Enforcement to take common ravens or their nests.
APM B-21 Wildlife	No clearing of or other disturbance to riparian habitats. If unavoidable, riparian habitats must be replaced or restored. This action will benefit several riparian bird species including summer tanager, yellow warbler, yellow breasted chat, least Bell's vireo, and southwestern willow flycatcher.
APM B-22 Wildlife	Avoid impact to mesquite-dominated habitats to protect crissal thrasher.
APM B-23 Wildlife	Minimize impact to or removal of creosote bush to benefit Le Conte's thrasher.
APM B-24 Wildlife	Avoid any alterations to the vegetation structure of Washington fan palm oases to benefit southern yellow bat.
APM B-25 Wildlife	Avoid any alterations of mesquite hummock habitat to benefit Coachella Valley round-tailed squirrel.

Table D.2-6. Applicant Proposed Measures – Biological Resources

APM No.	Description
APM B-26 Wildlife	Wash communities along the entire route and sand dune communities in the Coachella Valley (see Map 10-AZ in the Draft SEIS and Figure 4.5-1 in the CPUC Draft EIR, 1987) will be spanned to the extent possible.
APM B-27 Wildlife	Prior to construction activities, the Holder shall have a qualified tortoise biologist present a class or briefing to construction workers. Subjects addressed shall include tortoise sensitivity to human disturbance, daily and seasonal activity patterns, and proper handling for removal from roadways.
APM B-28 Wildlife	The Holder shall hire a qualified tortoise biologist to conduct daily inspections of roads and work areas within tortoise habitat during the tortoise season of activity (February 15 to June 15, July 15 to October 15). Tortoises found to be in jeopardy will be removed to a nearby site. Tortoises may be held for short periods, if judged necessary, to allow construction crews to pass through an area. The Holder will provide proper facilities for such temporary holding.
APM B-29 Wildlife	The Holder shall restrict the speed on all roads within tortoise habitat to a maximum of 25 miles per hour. The Holder is responsible for ensuring compliance with this limit by its employees.
APM B-30 Wildlife	Within tortoise habitat in California, spur roads shall not be bladed except where necessary to allow access for construction vehicles. Required vehicles shall enter on one pathway which is flagged and developed only by the passage of vehicles crushing vegetation. The spur shall be flagged by a qualified tortoise biologist prior to use. The spur shall avoid tortoise burrows and large perennial plants, yet be as short as possible within these requirements. Due to the presence of silty soils in Arizona, blading may occur.
APM B-31 Wildlife	Any desert tortoise observed on access roads or work areas will be moved immediately 100 yards away from the roadway into safe areas.
APM B-32 Wildlife	In areas considered to comprise suitable tortoise habitat, or other areas where tortoise are observed, all access roads and tower construction sites will be surveyed by a qualified biologist to delineate burrows or individuals for protection. Burrows near construction sites will be clearly delineated on the ground. Road, footing, and work area alignments should be modified to the extent possible to avoid aversely affecting any tortoise burrows encountered during these surveys. Where tortoise burrows will be unavoidably destroyed, they should be excavated carefully using hand tools, under the supervision of a field biologist with demonstrated prior experience with this species. See Map 11-AZ in Appendix F in the Draft EIS (1988) and Figure 4.5-2 in the Devers–Palo Verde No. 2 EIR (1987). Also see Appendix E for link and milepost descriptions and mitigation measures.
APM B-33 Wildlife	If possible, no new roads, tower sitings, or spur roads will be built in blow sand areas. However, if new spur roads are required through wind-blown sand habitat, the road will be returned to natural conditions and effectively closed (gated or bermed) following construction. Pre-construction surveys will identify wind-blown sand dune habitats.
APM B-34 Wildlife	Where the project crosses through the Coachella Valley Preserve, the Holder will cooperate with the Preserve in closing (gating) existing access roads. (a) A qualified biologist will also be present with work crews to survey and clear work areas daily for Coachella Valley fringe-toed lizard (CVFTL), flat-tailed horned lizard (FTHL), and other sensitive species in the Preserve and sand dune communities from Link 14 (Milepost 7.6) to Link 16 (Milepost 5.0) to identify if ay additional areas of occupied CVFTL and FTHL habitat are present along the route or at construction staging areas. (b) This survey will be conducted during appropriate seasons (March 15 to May 15) and conditions for species identification. For any areas of suitable habitat, this measure will apply. In the Coachella Valley, compacted soils should be scarified and seeded with a mix of native plant seeds, including bugseed (*Dicoria canescens*), to promote revegetation of plant species valuable to the lizard. Construction activity and surface disturbance will be prohibited during the period from January 1 to March 31 for the protection of the bighorn sheep lambing areas. These areas along the proposed route include Link 2 (Milepost 29.0 to 34.0) and Link 6 (Milepost 0.0 to 6.0).
APM B-35 Wildlife	Avoid upland areas where desert tortoises might occur and/or have a biologist present during construction activities that involve earth moving in order to move any tortoises (in burrows or cover-sites, or on the surface) that would likely be impacted.
APM B-36 Wildlife	Avoid construction activities that would tend to create wind barriers that might result in sand stabilization in order to minimize impacts to populations of the Coachella Valley fringe-toed lizard.

Table D.2-6. Applicant Proposed Measures – Biological Resources

APM No.	Description
APM B-37 Wildlife	Mitigation for the coastal California gnatcatcher should include protocol-driven pre-construction surveys. If gnatcatchers are found to be present, suitable habitat should be avoided, including relocating towers and access. If habitat cannot be avoided, SCE should either restore damaged habitat, as at the Weapons Support Facility, Fallbrook Detachment, San Diego County (Soil Ecology and Research Group, 2004), or participate in land set-aside programs such as the Natural Community Conservation Planning program (NCCP). Another potential mitigation action would be that of assisting in the provision of funding for monitoring programs that may be undertaken through the Western Riverside County Multiple Species Habitat Conservation Plan.
APM B-38 Wildlife	For least Bell's vireo, suitable habitat would be completely avoided by relocating tower sites and/or associated access roads. There would be approximately 0.8 acres of suitable habitat potentially affected by the proposed west of Devers 230 kV upgrade; this small area should be entirely avoided. If avoidance is not possible and the habitat is damaged or lost, SCE should participate in habitat banking programs or provide funding through the Western Riverside County Multiple Species Habitat Conservation Plan for plan-related monitoring of this species.
APM B-39 Wildlife	Stephens' kangaroo rat habitat would be avoided, where possible.
APM W-2	Construction equipment will be kept out of flowing stream channels except when absolutely necessary to construct crossings.
APM W-3	Erosion control and hazardous material plans will be incorporated into the construction bidding specifications to ensure compliance.
APM W-6	Diversion dikes will be required to divert runoff around a tower structure if (a) the location in an active channel cannot be avoided; and (b) where there is a very significant flood scour/deposition threat, unless specifically by the BLM Authorized Officer.

Source: SCE, 2005a.

1 APM refers to Applicant Proposed Measure. If there is a measure in the 1989 BLM ROW Grant that is not specified in the PEA as an APM, this FLM Grant measure is listed in shaded rows at the end of the table and is labeled BLM followed by its reference in the ROW Grant.

2 Refers to the Devers-Harquahala 500 kV transmission line.

3 Refers to the West of Devers 230 kV transmission line upgrade.

4 Holder is BLM's reference to the ROW Grant holder. Holder is SCE, the project proponent.

D.2.5.3 Impacts Identified

The Proposed Project could result in temporary disturbance and/or permanent loss of sensitive vegetation communities and listed and sensitive plant and animal species. Temporary disturbance includes short-term impacts (i.e., less than 6 months) associated with construction, such as placement of new transmission towers and removal of existing towers, construction of new access roads and improvements to existing access roads, and work at conductor tensioning/splicing and staging/laydown areas. Permanent loss involves long-term impacts associated with permanent project features (e.g., new transmission towers and substations) that would remain throughout the life of the project. Examples of activities that may result in temporary impacts to sensitive vegetation communities and wildlife include:

- Installation of new 500 kV circuit steel lattice tower structures
- Construction of substation facilities
- Construction of series capacitor banks
- Removal of existing 230 kV single-circuit transmission lines
- Construction of a new 230 kV double-circuit transmission line
- Upgrade of 230 kV transmission lines
- Establishment of construction staging and laydown areas
- Construction of access and spur roads.

Each of these activities would cause some removal of existing vegetation and disturbance of surface soils. In addition, permanent loss of habitat would occur where new tower or pole foundations are installed, where substations and series capacitor banks are constructed, and where access and spur roads are constructed.

Surface disturbance could occur during construction, operation, and maintenance of the Proposed Project especially when vehicles are driven over existing vegetation that has not been intentionally and regularly cleared to maintain utility access roads or firebreaks. Impacts would be related to the following activities:

- Movement of equipment and project personnel for monthly or annual project maintenance
- Movement of equipment and project personnel during line-stringing/cable pulling.

Each of these activities could cause temporary damage to existing vegetation, but would not likely involve removal or substantial disruption of surface soils. The most common type of surface disturbance is associated with rubber-tired or steel-tracked vehicles used to string/pull the line and transport personnel and materials along the project ROW. Potential impacts to plant communities could also be caused by the movement of construction/maintenance vehicles and equipment within the transmission line ROW. Impacts could include soil compaction and crushing of vegetation. Not all plant communities are equally sensitive to surface disturbance, not all of these impacts would occur in every plant community, and such disturbance would be limited to areas where other existing surface roads are not available.

Impacts to listed and sensitive wildlife and plant species may occur as a result of removal of habitat and direct mortality resulting from construction and operational activities.

Table D.2-7 lists the impacts identified for the Proposed Project and alternatives, along with the significance of each impact. Detailed discussions of each impact and the specific locations where each is identified are identified below. Impacts are classified as Class I (significant, cannot be mitigated to a level that is less than significant), Class II (significant, can be mitigated to a level that is less than significant), Class III (adverse, but less than significant), and Class IV (beneficial).

Table D.2-7. Impacts Identified – Biological Resources

Impact No.	Description	Impact Significance
Proposed Project		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class II
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class III
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II, III
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II, III
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact, Class II

Table D.2-7. Impacts Identified – Biological Resources

Impact No.	Description	Impact Significance
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact, Class III
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	No Impact, Class II, III
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III
SCE Harquahala-West Alternative		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class II
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class III
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II, III
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	No Impact
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III
SCE Palo Verde Alternative		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class II
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III

Table D.2-7. Impacts Identified – Biological Resources

Impact No.	Description	Impact Significance
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class III
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II, III
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	No Impact
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III
Harquahala Junction Switchyard Alternative		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class II
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class III
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II, III
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	No Impact
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III
Desert Southwest Transmission Project Alternative		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II

Table D.2-7. Impacts Identified – Biological Resources

Impact No.	Description	Impact Significance
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class II
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class II
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II, III
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	Class II
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III
Alligator Rock–North of Desert Center Alternative		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class III
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class II
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II, III
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	No Impact
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III

Table D.2-7. Impacts Identified – Biological Resources

Impact No.	Description	Impact Significance
Alligator Rock–Blythe Energy Transmission Alternative		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class III
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class II
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II, III
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	No Impact
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III
Alligator Rock–South of I 10 Frontage Alternative		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class III
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class II
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	No Impact

Table D.2-7. Impacts Identified – Biological Resources

Impact No.	Description	Impact Significance
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III
Devers-Valley No. 2 Alternative		
B-1	Construction activities would result in temporary and permanent loss of native vegetation	Class II
B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species	Class II
B-3	Construction activities would create dust that may result in degradation to vegetation	Class III
B-4	Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species	Class III
B-5	Construction activities during the breeding season would result in a potential loss of nesting birds	Class II
B-6	Construction activities would result in indirect or direct loss of listed plants	Class II
B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat	Class II, III
B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Class II
B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Class II, III
B-10	Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands	Class II
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact
B-12	Construction activities would result in adverse effects to linkages and wildlife movement corridors	No Impact
B-13	Construction activities may conflict with local policies or ordinances protecting biological resources, Habitat Conservation Plans, Natural Communities Conservation Plans, Multiple Species Habitat Conservation Plans, or other approved local, regional, State, or federal conservation plans	Class II
B-14	Operation of the transmission line may result in electrocution of listed bird species	Class III
B-15	Operation of the transmission line may result in collisions by listed bird species	Class II
B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class II
B-17	Wildlife mortality resulting from traffic on access roads	Class III

D.2.6 Environmental Impacts and Mitigation Measures for the Proposed Project – Devers-Harquahala

This section presents a discussion of impacts and mitigation measures for the 500 kV portion of the DPV2 Project. The discussion characterizes the types of impacts that may occur to each resource for the Proposed Project for Arizona and California. Specific impacts and mitigation measures within each segment are identified in Table D.2-8.

Table D.2-8. Summary of Impacts by Segment

Proposed Project Segment	Impacts																	Mitigation Measures[1]
	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12	B-13	B-14	B-15	B-16	B-17	
Harquahala to Kofa National Wildlife Refuge	Class II	Class II	Class III	Class III	Class II	Class II	Class II	Class III	Class II	Class II	No Impact	No Impact	No Impact	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-6a, B-7b, B-7c, B-9a, B-9b, B-9c, B-9d, B-9f B-9e, B-15a, B-16a
Kofa National Wildlife Refuge	Class II	Class II	Class III	Class III	Class II	Class II	Class II	Class III	Class II	Class II	No Impact	No Impact	Class III	Class III	Class II	Class II	Class III	B-1a, B-1b, B-2a, B-2b, B-5a, B-6a, B-7b, B-7c, B-9c, B-9d, B-9f, B-15a, B-16a
Kofa National Wildlife Refuge to Colorado River	Class II	Class II	Class III	Class III	Class II	Class II	Class II	Class III	Class II	Class II	No Impact	Class III	No Impact	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-6a, B-7a, B-7b, B-7c, B-9c, B-9d, B-9e, B-15a, B-16a
Colorado River to Midpoint Substation	Class II	Class II	Class III	Class III	Class II	Class II	Class II	Class II	Class II	Class II	No Impact	Class III	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-7b, B-7c, B-8a, B-9b, B-9c, B-9d, B-9e, B-9g, B-15a, B-16a
Midpoint Substation	Class II	Class II	Class III	Class III	Class II	Class II	Class II	Class II	Class II	Class III	No Impact	No Impact	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-7b, B-7c, B-8a, B-9a, B-9d, B-9e, B-9g, B-9h
Midpoint Substation to Cactus City Rest Area	Class II	Class II	Class III	Class III	Class II	Class II	Class II	Class II	Class II	Class II	Class II	Class III	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-7b, B-7c, B-8a, B-9b, B-9d, B-9e, B-9g, B-9h, B-15a, B-16a,

Table D.2-8. Summary of Impacts by Segment

Proposed Project Segment	Impacts																	Mitigation Measures[1]
	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12	B-13	B-14	B-15	B-16	B-17	
Cactus City Rest Area to Devers Substation	Class II	Class II	Class III	Class III	Class II	Class II	Class II, III	Class III	Class II	Class II	Class II	Class III	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-6a, B-7b, B-7c, B-7d, B-8a, B-9a, B-9b, B-9d, B-9e, B-9h, B-9i, B-15a, B-16a
Devers Substation to East Border of Banning	Class II	Class II	Class III	Class III	Class II	Class II	Class II, III	Class III	Class II	Class II	Class II	Class III	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-6a, B-7b, B-7c, B-8a, B-9a, B-9b, B-9d, B-9e, B-9g, B-9h, B-9i, B-13a, B-13b, B-15a, B-16a,
Banning and Beaumont	Class II	Class II	Class III	Class III	Class II	Class II	Class II, IIII	Class III	Class II	Class II	Class II	Class III	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-6a, B-8a, B-9a, B-9b, B-9d, B-9e, B-9g, B-9h, B-9i, B-13a, B-13b, B-15a, B-16a
Calimesa and San Timoteo Canyon	Class II	Class II	Class III	Class III	Class II	Class II	Class II, III	Class III	Class II	Class II	Class III	Class III	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-6a, B-7c, B-7d, B-7f, B-8a, B-9a, B-9b, B-9d, B-9e, B-9g, B-9h, B-13a, B-13b, B-15a, B-16a
San Bernardino Junction to Vista Substation	Class II	Class II	Class III	Class III	Class II	Class II	Class II, III	Class III	Class II	Class II	No Impact	No Impact	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-6a, B-7c, B-7d, B-7e, B-7f, B-8a, B-9a, B-9b, B-9d, B-9e, B-9h, B-13a, B-13b, B-15a, B-16a

Table D.2-8. Summary of Impacts by Segment

Proposed Project Segment	Impacts																	Mitigation Measures[1]
	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12	B-13	B-14	B-15	B-16	B-17	
San Bernardino Junction to San Bernardino Substation	Class II	Class II	Class III	Class III	Class II	Class II	Class II, III	Class III	Class II	Class II	Class II	No Impact	Class II	Class III	Class II	Class II	Class III	B-1a, B-2a, B-2b, B-5a, B-6a, B-7c, B-7d, B-7e, B-7f, B-8a, B-9a, B-9b, B-9d, B-9e, B-9h, B-13a, B-13b, B-15a, B-16a

1 Following is a list of the mitigation measures that apply to the Proposed Project:

B-1a Prepare and implement a Habitat Restoration/Compensation Plan
B-1b Coordinate tower placement with USFWS/BLM
B-2a Conduct invasive and noxious weed inventory
B-2b Implement control measures for invasive and noxious weeds
B-5a Conduct pre-construction surveys and monitoring for breeding birds
B-6a Develop a transplanting plan
B-7a Avoid Colorado River
B-7b Conduct pre-construction tortoise surveys
B-7c Purchase mitigation lands for impacts to tortoise habitat
B-7d Purchase mitigation lands for impacts to fringe-toed lizard habitat
B-7e Conduct focused surveys for California gnatcatchers
B-7f Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat
B-8a Conduct surveys for listed plant species
B-9a Conduct pre-construction surveys
B-9b Conduct biological monitoring
B-9c Implement a Worker Environmental Awareness Program
B-9d Conduct pre-construction reptile surveys
B-9e Conduct pre-construction surveys and owl relocation
B-9f Perform construction outside of breeding and lambing period
B-9g Conduct pre-construction surveys and relocation for American badger
B-9h Conduct pre-construction surveys for roosting bats
B-9i Schedule construction when the Coachella Valley round-tailed squirrel is dormant
B-13a Demonstrate compliance with the Western Riverside MSHCP
B-13b Implement the Best Management Practices required by the Western Riverside MSHCP
B-15a Utilize collision-reducing techniques in installation of transmission lines
B-16a Prepare and implement a raven control plan

D.2.6.1 Impacts of Transmission Line Construction

D.2.6.1.1 Vegetation

Construction impacts to vegetation may occur in a variety of ways, including the direct removal of plants during the course of construction. As these impacts are generally localized and are primarily temporary in nature they are not usually considered significant unless the habitat type is regionally unique or is known to support sensitive species. Clearing and grading may also result in the alteration of soil conditions, including the loss of native seed banks and change the topography and drainage of a site such that the capability of the habitat to support native vegetation is impaired. Desert ecosystems subject to ground disturbance can take decades to recover, if at all, and are subject to changes in vegetation communities in disturbed areas. In total these activities may also result in the creation of conditions that are favorable for the invasion of weedy exotic species that prevent the establishment of desirable vegetation and may adversely affect wildlife.

Depending on the site specific topography, these impacts may extend beyond the ROW unless precautions are taken. The removal of native vegetation types, such as desert scrub, coastal sage, or chaparral, creates possibilities for erosion or weed invasion that can affect adjacent and downslope habitats. As such, it is the indirect, off-ROW impacts associated with the removal of native vegetation that may be significant. Removal or incidental loss of sensitive species or individual native specimen trees would also be considered a significant impact. There are several general items to be addressed for the Proposed Project as a whole, each of which contributes to the project's impacts and requires specific mitigation needs.

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

Depending on the location of the segment, the Proposed Project would result in both temporary and permanent impacts to a variety of regionally unique habitats. In Arizona and the eastern portion of the California alignment, construction would primarily result in impacts to Sonoran desert scrub, dry desert wash woodland, and disturbed communities. In the Palo Verde Valley several transmission poles are located in or adjacent to agricultural fields.

Construction of the Proposed Project would also have the potential to impact stabilized desert sand fields, mesquite hummocks, stabilized desert dunes, ephemeral sand fields, and Sonoran mixed woody and succulent scrub communities that are interspersed with the Sonoran desert scrub and dry desert wash woodland communities. These important transitional plant communities occur between the Cactus Rest Area and the Devers Substation portion of the alignment. Scattered desert fan palm oases are also present along the base of the Indio Hills north of the proposed alignment in the Coachella Valley.

Construction activities would result in potential impacts to Sonoran desert scrub habitat and Sonoran mixed woody and succulent scrub at tower locations between the Devers Substation and Banning. The Proposed Project may also impact small populations of brittlebush scrub, saltbush scrub, and catclaw acacia/ grassland in this segment. West of Banning construction would result in potential impacts to catclaw scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, coastal sage scrub, and chaparral communities that occur in the foothills below the San Bernardino National Forest. This segment also includes developed and disturbed areas that support little or no native vegetation. Vegetated drainages characterized by riparian scrub also occur in this segment of the Proposed Project.

Habitat in the Calimesa and San Timoteo Canyon segment of the alignment supports populations of chaparral, sage scrub, alluvial sage scrub, chaparral/grassland mixed communities, and non-native grasslands. This area was subject to a wildfire in 2005 and many plant communities in the segment were burned. Scattered oak woodlands occur in some areas and San Timoteo Creek supports a well developed riparian community. As the Proposed Project moves into developed areas near the Vista Substation site would result in potential impacts to patches of mixed Riversidean sage scrub/non-native grasslands and mixed coastal sage scrub/non-native grasslands. Coastal sage scrub and chaparral communities are also present in the Calimesa and San Timoteo Canyon and the San Bernardino Junction to Vista Substation segments of the Proposed Project. Table D.2-9 contains a description of the plant communities that occur in each segment.

Ground-disturbing activity, including tower pad preparation and construction, grading of new access roads, transportation, maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads has the potential to disturb the vegetation communities identified in Table D.2-9. With the exception of disturbed and landscaped areas, the permanent loss and temporary disturbance of native vegetation communities (Sonoran desert scrub, dry desert wash woodland, stabilized desert sand fields, mesquite hummocks, stabilized desert dunes, ephemeral sand fields, Sonoran mixed woody and succulent scrub, fan palm oasis, riparian, Riversidean sage scrub and chaparral) resulting from the construction of the Proposed Project would result in significant impacts to native vegetation communities (Class II) without mitigation.

SCE has developed specific APMs to address potential impacts to sensitive plant communities that occur in the Proposed Project area. For example, APM B-1 is intended to avoid disturbance to highly sensitive features that occur in BLM ROW. SCE has also developed APMs including conducting detailed surveys of the tower locations for sensitive plants or plant communities (APM B-8) and to locate towers outside of sensitive plant communities where possible (APM B-12). To reduce potential impacts to vegetation communities in this SCE would also implement a series of other APMs including B-3, B-4, B-6, B-13, B-16, B-17, B-19, B-25, B-26, B-33, B-34, and B-36. A complete description of APMs is located in Table D.2-6. The measures are designed to minimize impacts to vegetation communities, sand dunes, blow sands areas, and sensitive plants in the Coachella Valley and in other habitats that occur in the Proposed Project area. In addition to the APMs proposed by SCE, potential impacts to native vegetation would be reduced to a less than significant level through implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) and Mitigation Measure B-1b (Coordinate tower placement with USFWS/BLM).

Table D.2-9. Habitat Type per Segment

Segment	Habitat Type
Harquahala to Kofa National Wildlife Refuge	Sonoran desert scrub
Harquahala Mountain Telecommunication Site	Sonoran desert scrub and Arizona Chaparral Series
Kofa National Wildlife Refuge	Sonoran desert scrub
Kofa National Wildlife Refuge to Colorado River	Sonoran desert scrub, Sonoran riparian deciduous woodland
Palo Verde Valley (Colorado River to Midpoint Substation)	Cottonwood and willow riparian, Sonoran desert scrub
Midpoint Substation	Creosote bush scrub
Midpoint Substation to Cactus City Rest Area	Creosote bush scrub, Dry desert wash, Sonoran desert scrub, Desert fan palm oasis woodland

Table D.2-9. Habitat Type per Segment

Segment	Habitat Type
Cactus City Rest Area to Devers Substation	Sonoran creosote bush scrub, Dry desert wash woodland, Desert sand field, Mesquite hummock, Stabilized sand field, Stabilized desert dune, Ephemeral sand field, Sonoran mixed woody and succulent scrub, Creosote bush scrub, Desert fan palm oasis woodland, Mesquite bosque, Mojave Riparian Forest
Devers Substation to East Border of Banning	Sonoran of creosote bush scrub, Sonoran mixed woody and succulent scrub, Brittlebush scrub, Saltbush scrub, Catclaw acacia, Catclaw acacia/grassland
Banning and Beaumont	Non-native grassland, Riversidean sage scrub/chaparral, Riversidean alluvial fan sage scrub, catclaw scrub, coastal sage scrub, and chaparral
Calimesa and San Timoteo Canyon	Chaparral, Sage scrub/chaparral/grassland, Riversidean alluvial fan sage scrub, Non-native grassland, Oak woodland, Riparian
San Bernardino Junction to Vista Substation	Non-native grasslands, Mixed sage scrub/non-native grassland
San Bernardino Junction to San Bernardino Substation	Non-native grasslands, Sage scrub, Mixed sage scrub/grassland

Mitigation Measures for Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan.** SCE shall restore all areas disturbed by project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations that are removed during construction of the Proposed Project. Where onsite restoration is planned for mitigation of temporary impacts to sensitive vegetation communities, SCE shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC/BLM. Hydroseeding shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC/CDFG/ADGF/FWS and BLM (on BLM lands). SCE shall flag the limits of disturbance at each construction site. In project areas that occur in the WRCMSHCP plan area, SCE shall use the applicable Best Management Practices identified in the WRCMSHCP.

The creation or restoration of habitat shall be monitored for five years after mitigation site construction, or until established success criteria are met, to assess progress and identify potential problems with the restoration site. Remedial activities (e.g., additional planting, weeding, or erosion control) shall be taken during the monitoring period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise noted by the CPUC/BLM.

B-1b **Coordinate tower placement with USFWS/BLM.** Where the proposed route crosses the Kofa National Wildlife Refuge, SCE shall coordinate with the U.S. Fish and Wildlife Service, Division of Refuges' refuge management personnel to determine specific tower site and spur road locations in order to minimize habitat disturbance and/or the loss of valuable habitat features. SCE shall demonstrate compliance with this measure prior to construction.

D.2.6.1.2 Introduction of Non-Native Plant Species

The inadvertent introduction of non-native plant species is a special concern for desert plant communities and is recognized by the BLM as a threat to native vegetation communities. Non-native plants pose a

threat to the natural processes of plant community succession, fire frequency, and can affect the biological diversity and species composition of native plant communities. The survival of some populations of special status species could be adversely affected by the success of an introduced plant species. For example the introduction of non-native plant species has radically altered the natural characteristics of plant communities in the Great Basin since the mid-19th century. Species of particular concern are the noxious weed species considered to be capable of the most harm. Some of the noxious weeds known to occur in Arizona and California include Russian knapweed (*Acroptilon repens*), globed-podded hoary cress (*Cardaria draba*), and diffuse knapweed (*Centauria diffusa*). Invasive species include common Russian thistle, and brome grasses. Both California and Arizona have laws that prohibit the introduction and willful spread of noxious weeds on private and public lands.

Impact B-2: Construction activities would result in the introduction invasive non-native or noxious plant species (Class II)

The Proposed Project would temporarily remove native vegetation communities at the construction sites located adjacent to each tower and along access roads, laydown areas or Substation sites. Introduction of non-native plant species would occur primarily during construction, but would also continue to occur during operation and maintenance phases of the Proposed Project. The introduction of non-native or noxious weeds would be related to the use of vehicles, construction equipment, or earth materials contaminated with non-native plant seed, use of straw bales or wattles that contain seeds of non-native plant species, and enhanced public access to the project corridor during and after construction. Vehicles parking along access roads that contain populations of noxious weeds can also result in the introduction of these species into areas not previously infested.

To reduce the potential for the introduction of noxious weeds SCE would implement APM B-2 (Standard Noxious Weed BMPs) and B-11, which would require hand clearing of vegetation in certain areas located along the ROW. This APM would facilitate the maintenance of existing root systems which may help to stabilize the soils against erosion and assist in the restoration of these areas if the plants resprout at the conclusion of project activities. SCE would also implement APM B-19 which would require the restoration of disturbed areas at the conclusion of construction. However, SCE has not indicated which areas would be subject to hand clearing or restoration at this time. The introduction of non-native plant species would be considered a significant impact (Class II) without mitigation. Implementation of the Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-2a (Conduct invasive and noxious weed inventory), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan.**

B-2a **Conduct invasive and noxious weed inventory.** SCE shall survey the project corridor, including access roads, for populations of invasive and noxious weeds prior to the start of construction. All populations of invasive and noxious weeds within 500 feet of each tower location shall be flagged prior to construction. The Applicant shall submit a Noxious Weed Control Plan to BLM, CPUC, ADGF, CDFG, and/or USFWS at least 60 days prior to the start of construction. The weed control plan shall specify the location of existing weed populations; measures to control introduction and spread of noxious weeds in the project corridor; worker training, specifications, and inspection procedures for construction materials

and equipment used in the project corridor; post-construction monitoring for noxious weeds; and eradication and control methods.

Known populations of invasive and noxious weeds in the project corridor shall be evaluated by BLM, CPUC, CDFG, and USFWS to identify candidates for eradication. Selected weed populations shall then be eradicated prior to construction.

All seeds and straw material shall be certified weed free. All gravel and fill material used during project construction and maintenance shall be certified weed free by the local County Agriculture Commissioner's Office.

B-2b **Implement control measures for invasive and noxious weeds.** SCE shall adhere to the BLM management guidelines for reducing the potential for the introduction of noxious weeds and invasive, non-native plant species on the BLM lands by implementation of the following standards:

- **Wash all equipment and vehicles.** Vehicles and all equipment must be washed BEFORE AND AFTER entering all project sites. This includes wheels, undercarriages, bumpers and all parts of the vehicle. In addition, all tools such as chain saws, hand clippers, pruners, etc., must also be washed BEFORE AND AFTER entering all project sites. For example, vehicles traveling into contaminated areas are the main dispersal mechanism for yellow star-thistle. All washing must take place where rinse water is collected and disposed of in either a sanitary sewer or a landfill.
- **Keep written logs.** When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used and staff present. The log shall contain the signature of the responsible crewmember.
- **Written logs will be available** for CPUC/BLM inspection and shall be turned in to BLM on a weekly basis.

D.2.6.1.3 Wind Blown Dust

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. Increased levels of dust on the leaves of plants can decrease the photo-synthetic capabilities of the plants. SCE would implement Title 1 measures (Air Quality) to decrease fugitive dust including reduced vehicle speeds, use of tackifiers, and periodic watering of the ROW. Watering will be done in such a way as to prevent pooling of water on the soil surface so that toad species would not be stimulated to emerge from their subsoil aestivation burrows prior to natural rain events. Because the vegetation in desert areas is typically subject to blowing winds and dust, the additional levels of dust would not be expected to significantly impact the photosynthetic capabilities of plants in the surrounding areas. Vegetation in coastal sage scrub and chaparral communities is more susceptible to wind blown dust however, implementation of standard air quality measures would reduce impact to these plant communities. With the implementation of Title 1 rules the potential impacts of increased dust settling on plants is expected to be adverse but not significant (Class III).

D.2.6.1.4 Wildlife

Direct impacts on wildlife anticipated as a result of the Proposed Project include the removal of vegetation which would result in the temporary loss of wildlife habitat along with the displacement and/or potential mortality of resident wildlife species that are poor dispersers such as snakes, lizards, and small mammals. Construction may also result in the temporary degradation of the value of adjacent native habitat areas due to disturbance, noise, increased human presence, and increased vehicle traffic during construction. Depending on the timing and location of project activities construction may also result in temporary disruption along terrestrial and riparian wildlife movement corridors crossed by the project.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

Direct loss of small mammals, reptiles, and other less mobile species could occur during the Proposed Project. This action would result primarily from the use of construction vehicles and the grading of laydown areas for tower erection. Fossorial species, such as small burrowing animals (lizards, snakes, and small mammals) may be harmed through the crushing of burrows, the loss of refugia, and direct mortality from construction activities. Construction activities and human presence can also alter or disrupt the breeding and foraging behavior of wildlife.

Clearing and grading would generate the greatest construction impacts on wildlife. Removal of vegetation during the construction phase of this project would temporarily diminish the amount of habitat available for wildlife that are present in a particular area. Individuals displaced from areas cleared of native vegetation could be lost if adjacent habitats are at carrying capacity or if they are exposed to an increased risk of predation. Direct mortality of wildlife is anticipated to occur during habitat clearing, earth removal, grading, digging, and equipment movement. Deaths related to construction would be incurred primarily by burrow-dwelling animals; eggs and nestlings of bird species with small, well-hidden nests (these must be avoided to prevent violation of the Migratory Bird Treaty Act); and species with limited mobility (e.g., lizards, snakes, ground squirrels, and tortoises). More mobile species like birds and larger mammals are expected to disperse into adjacent habitat areas during the land clearing and grading phases associated with tower construction.

Local wildlife populations along the ROW are expected to temporarily decline or disperse during the construction phase of the project but are expected to return to their pre-construction levels following the restoration of the laydown areas and tower erection sites. Also, as construction is limited to relatively small areas wildlife would likely return to the ROW as work crews move to new tower locations.

Construction could also result in an increase in accidental road-killed wildlife due to increased vehicle traffic along the construction corridor. Diurnally active reptiles and mammals are the most likely to be subject to mortality from construction vehicles.

Noise, dust, visual disturbance from increased human activity, and exhaust emissions from heavy equipment during construction could result in native habitats adjacent to the construction zone being temporarily unattractive to wildlife. Construction could impact wildlife in adjacent habitats by interfering with breeding or foraging activities, altering movement patterns, or causing animals to temporarily avoid areas adjacent to the construction zone. Nocturnally active wildlife would be affected less by construction than would diurnally active species.

Wildlife species are most vulnerable to construction-related disturbances during their breeding seasons. Disturbances from construction could result in nest, roost, or territory abandonment and subsequent reproductive failure if these disturbances were to occur during an affected species' breeding season.

A large part of the proposed route would be constructed along the existing utility ROW and within or immediately adjacent to existing maintained road easements. Most of the wildlife expected to be impacted by construction in these disturbed easements are composed of common, wide-ranging species. Due to the narrow area of disturbance along this project and the short duration of disturbance, most of the more common wildlife species found along the route are expected to quickly recolonize the corridor after construction and subsequent revegetation work is completed. Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on wildlife from construction would generate potentially adverse but less than significant impacts (Class III).

D.2.6.1.5 Nesting and Migratory Birds

The Proposed Project contains a variety of plant communities along the length of the ROW that provide for the foraging and nesting for migratory birds. Some of these areas include the Sonoran desert and coastal scrub communities that occur in Arizona and California; riparian drainages including the Colorado River, San Timoteo Creek, and San Gorgonio River; and the natural rock features such as cliffs and large rock outcrops associated with Saddle Mountain, Palo Verde Hills, Big Horn Mountains, and Eagle Mountains in Arizona or the Chuckwalla Mountains in California.

As described above, ground-disturbing activity including tower pad preparation and construction or grading of new access roads has the potential to disturb vegetation utilized by wildlife including nesting birds. With the exception of a few non-native birds an active nest is fully protected against take pursuant to the Migratory Bird Treaty Act. Nesting birds are also offered protection from the BLM and AGFD. It is unlawful to take, possess, or destroy the nest or eggs of any such bird. Impacts could occur if trees and/or shrubs were removed that contained an active nest. The removal of habitat during the breeding season would likely result in the displacement of breeding birds and the abandonment of active nests. The Proposed Project has the potential to violate the Migratory Bird Treaty Act as a result of habitat removal during the breeding season.

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

Construction activities, including the construction of towers, the establishment of staging/laydown facilities, stringing of conductors, and the increased presence of humans may result in direct or indirect impacts to nesting birds that may occur in the Proposed ROW. The Proposed Project may also impact raptors that utilize the existing towers for nesting and to burrowing owls that frequent the edges of agricultural fields, existing roads, and irrigation canals for wintering or breeding habitat. These birds may abandon their nests if construction activities occur in close proximity to the nests. Displacement of raptors or burrowing owls during the breeding season would be considered a significant impact (Class II) without mitigation.

To reduce potential impacts to nesting birds and raptors SCE would implement APMs prior to construction of the project. These include APMs B-8 and B-16 that require additional detailed surveys within a 100-foot buffer of project areas and the avoidance of sensitive sites if present. These APMs, by themselves, would not sufficiently ensure that impacts to migratory birds would be less than significant. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would ensure that violation of the Migratory Bird Treaty Act does not occur and would reduce impacts to nesting birds to an adverse, but less than significant level (Class II).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a **Conduct pre-construction surveys and monitoring for breeding birds.** SCE shall conduct protocol level surveys for nesting birds if construction activities are scheduled to occur during the breeding season for raptors and other migratory birds. Surveys shall be conducted in areas within 500 feet of tower sites, laydown/staging areas, substation sites, and access road/spur road locations. SCE shall be responsible for designating a CPUC/BLM-approved qualified biologist who can conduct pre-construction surveys and monitoring for breeding birds. If breeding birds with active nests are found, a biological monitor shall establish a 500-foot buffer around the nest and no activities will be allowed within the buffer until the young have fledged from the nest or the nest fails. The biological monitor shall conduct regular monitoring of the nest to determine success/failure and to ensure that project activities are not conducted within the 500-foot buffer until the nesting cycle is complete or the nest fails. The biological monitor shall be responsible for documenting the results of the surveys and the ongoing monitoring.

D.2.6.1.6 Threatened or Endangered Species

Vegetation

Habitat that occurs along the Proposed Project ROW in both Arizona and California supports known populations of threatened or endangered plants. Ground-disturbing activity, including tower pad preparation and construction, grading of new access roads, transportation, maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads has the potential to disturb either individual plants or populations of these species.

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class II)

In Arizona construction activities would result in potential impacts to two federally listed species, Arizona agave (*Agave arizonica*), which is listed as endangered for Maricopa County but is also proposed for delisting from the ESA and the Arizona cliff rose (*Purshia subintegra*). The project may also remove other plant species protected by the Arizona Native Plant Law, including blue palo verde, foothill palo verde, velvet mesquite, desert ironwood, ocotillo, and various cacti (saguaro, chollas, barrel, hedgehog, beavertail, prickly pear, desert Christmas, and nipple) that occur within the Proposed Project route. These species are protected from being salvaged, harvested, or otherwise removed from the environment.

SCE has indicated that APMs would be implemented to ensure that construction vehicles travel on established roads to the maximum extent practicable (APM B-3), and that spur roads, access roads, and other disturbed sites created during construction are recontoured and restored following construction activities (APM B-19). These actions would serve to minimize disturbances to protected plants and ensure that native habitat is restored to reduce the potential for invasive species. Additionally, SCE would conduct pre-construction surveys for sensitive or protected plants (APM B-8) and concentrations of sensitive plants or salvage-restricted plants are avoided (APM B-9; B-12; B-13).

In Arizona, certain native plants have been authorized for transplanting including *Ferocactus* and *Coryphantha* species. SCE would implement (APM B-9) which authorizes that these and other native plants may be transplanted (APM B-12) or sold to SCE. Because there is still potential for significant

impacts to occur to native plants protected under the Arizona Native Plant Law, construction-related impacts would be potentially significant (Class II). In addition to the APMs proposed by SCE, implementation of Mitigation Measure B-6a (Develop a transplanting plan) these impacts would be reduced to a less than significant level. This mitigation measure is presented below.

In California populations of threatened or endangered plant species are also present in several locations but do not occur in every segment. Populations of threatened or endangered plant species were identified in the following segments, Cactus City Rest Area to Devers Substation, Devers to East Banning, Banning to Beaumont, Calimesa to San Timoteo, and San Timoteo to Vista Substation. Table D.2-10 contains a list of the sensitive plant species identified by segment with the potential to occur in the Proposed Project area. In segments that are not expected to support populations of threatened or endangered plant species; the area either does not contain suitable habitat for listed plants or is located outside the geographical range for any of the listed plant species that were identified in Table D.2-4 to have a high or moderate potential to occur. In addition, these species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Sections determined to have a moderate or high potential to contain listed plant species are discussed further below.

Table D.2-10. Sensitive Plants with High Potential to Occur

Harquahala to Kofa National Wildlife Refuge			
Federal or State listed species	• Arizona agave • Arizona cliffrose		
Arizona Native Plant Law	• blue palo verde • foothill palo verde • velvet mesquite • desert ironwood	• ocotillo • saguaro • chollas barrel • hedgehog	• beavertail • prickly pear • desert Christmas • nipple
Kofa National Wildlife Refuge			
Federal or State listed species	None		
Arizona Native Plant Law	• blue palo verde • foothill palo verde • velvet mesquite • desert ironwood • ocotillo	• saguaro • chollas • barrel • hedgehog • beavertail	• prickly pear • desert Christmas • nipple
Kofa National Wildlife Refuge to Colorado River			
Federal or State listed species	None		
Arizona Native Plant Law	• blue palo verde • foothill palo verde • velvet mesquite • desert ironwood	• ocotillo • saguaro • chollas barrel • hedgehog	• beavertail • prickly pear • desert Christmas • nipple
Palo Verde Valley (Colorado River to Midpoint Substation)			
Federal or State listed species	None		
Federal or State sensitive species	• Harwood's milkvetch • foxtail cactus • Wiggins's cholla		
Midpoint Substation			
Federal or State listed species	None		
Federal or State sensitive species	• Harwood's milkvetch • foxtail cactus • Orocopia sage • desert sand-parsley	• ayenia • crucifixion thorn • glandular ditaxis • California ditaxis	• desert spike-moss • Cove's cassia

Table D.2-10. Sensitive Plants with High Potential to Occur

Midpoint Substation to Cactus City Rest Area			
Federal or State listed species	None		
Federal or State sensitive species	• Harwood's milkvetch • foxtail cactus • Orocopia sage • desert sand-parsley	• ayenia • crucifixion thorn • glandular ditaxis • California ditaxis	• desert spike-moss • Cove's cassia
Cactus City Rest Area to Devers Substation			
Federal or State listed species	• Coachella Valley milkvetch		
Federal or State sensitive species	• flat-seeded spurge • little San Bernardino Mountains gilia	• creamy blazing star • foxtail cactus • Arizona spurge	• California ditaxis • cliff spurge • slender woolly-heads
Devers Substation to East Border of Banning			
Federal or State listed species	• Mojave tarplant		
Federal or State sensitive species	• white-bracted spineflower • chaparral sand-verbena • Yucaipa onion	• Jaeger's milk vetch • little San Bernardino Mountains gilia	• Parry's spineflower • cliff spurge • slender woolly-heads
Banning and Beaumont			
Federal or State listed species	• Mojave tarplant • slender-horned spineflower		
Federal or State sensitive species	• Yucaipa onion • Jaeger's milk vetch	• Plummer's mariposa lily • Parry's spineflower	• white-bracted spineflower
Calimesa and San Timoteo Canyon			
Federal or State listed species	• Nevin's barberry • slender-horned spineflower		
Federal or State sensitive species	• Jaeger's milkvetch • Plummer's mariposa lily • Yucaipa onion	• Parry's spineflower • California bedstraw	• Hall's monardella • California bedstraw
San Bernardino Junction to Vista Substation			
Federal or State listed species	• Nevin's barberry • slender-horned spineflower	• Munz's onion • San Diego ambrosia	• Santa Ana River woollystar
Federal or State sensitive species	• Jaeger's milkvetch • California bedstraw	• Parish's desert-thorn • Parry's spineflower	
San Bernardino Junction to San Bernardino Substation			
Federal or State listed species	• slender-horned spineflower		
Federal or State sensitive species	• Jaeger's milk-vetch • Parry's spineflower	• California bedstraw • Parish's desert-thorn	

Cactus City Rest Area to Devers Substation. Construction of this segment of the Proposed Project has the potential to result in direct impacts to the Coachella Valley milkvetch, a federally endangered and CNPS List 1B plant. Over 20 plants were observed in the ROW between MPs E188 and E228 during surveys conducted in 2005. This species is typically associated with disturbed areas covered with wind blown sand and may occur in other areas along the ROW. Because this plant recruits in recently disturbed areas it may colonize areas that are disturbed by construction activities. However, this species would be a poor competitor with invasive plants that are also disturbance following species.

Devers to East Banning. Construction of this segment of the Proposed Project may result in direct impacts to one listed plant species, the Mojave tarplant. This species potentially occurs between MPs W17.5 and W20 and is associated with chaparral, coastal scrub, and mesic riparian scrub habitats. This species has also been documented to occur south of the ROW, on the north-facing slopes of the San Jacinto

Mountains near Cabazon and near the San Gorgonio River. Three additional listed plant species Munz's onion, San Diego ambrosia, and Coachella Valley milkvetch have a moderate potential to occur in this segment of the Proposed Project but were not identified during recent surveys. Suitable habitat for Munz's onion and San Diego ambrosia is present in grassland areas located in the western portion of this segment and Coachella Valley milkvetch potentially occurs in the eastern portion of this segment.

Banning to Beaumont. Two listed plant species, Munz's onion and San Diego ambrosia have the potential to occur in this section of the Proposed Project. Although these species have not been observed in this segment the presence of suitable habitat suggests there is a moderate potential for these species to occur. Munz's onion has been reported within 2 miles of the ROW. The grassland and Riversidean sage scrub/chaparral habitats in this segment are considered potential habitat for these species.

Calimesa to San Timoteo. Construction of this segment of the Proposed Project may result in direct impacts on two listed plant species, Nevin's barberry and slender-horned spineflower. These species have been documented between MPs W38 and W41. Four other listed plant species also have a moderate potential to occur in this segment, including Munz's onion, San Diego ambrosia, San Jacinto Valley crownscale, and Santa Ana River woollystar. Nevin's barberry is a conspicuous plant that could be avoided if present. Slender horned spineflower and Santa Ana River wooly star typically occur in alluvial washes and terrace habitat adjacent to historic waterways.

San Timoteo to Vista Substation. Two listed plant species, Nevin's barberry and slender-horned spineflower have been documented in this segment. Three other listed plant species have a high potential to occur in this segment, including Munz's onion, San Diego ambrosia, and Santa Ana River woollystar.

To reduce potential impacts to listed plant species SCE would implement a series of measures including APM B-4 which specifically addresses the avoidance of sand compaction at all sites in the Coachella Valley and APM B-8 (Conduct pre-construction surveys for rare plants). These APMs would benefit several species in this area including the Coachella Valley milkvetch. However, the vast scope of the construction in the Coachella Valley makes it highly unlikely that sand compaction can be avoided at all sites. Therefore, the construction of the Proposed Project could result in significant impacts to the Coachella Valley milkvetch through direct removal of plants and the degradation of potential habitat as a result of sand compaction. APM B-12 indicates that where possible, SCE would site towers or access roads would be located so as to avoid sensitive plants or plant communities and where this is not feasible, affected individual plants will be transplanted. As this species is federally endangered any activity that results in a possible "take" would be require consultation with the USFWS. With implementation of the APMs impacts to listed plants would be considered less than significant (Class II).

Mitigation Measure for Impact B-6: Construction activities would result in indirect or direct loss of listed plants

B-6a **Develop a transplanting plan.** In coordination with the BLM, SCE shall prepare a transplanting plan in compliance with both Arizona and California laws and regulations regarding native and sensitive plants, prior to project construction activities. The plan will provide details on the plants being transplanted, including which species and how many individuals of each species; where the plants will be transplanted; how the plants will be transplanted; how the plants will be maintained during the transplanting efforts; and if the plants will be used to re-vegetate disturbed areas of the construction site. As a condition of the plan, a pre-construction survey will be conducted to mark (using bright-colored flagging) all plants that will be transplanted. Some cacti will need to be transplanted facing the same

direction as they currently face (in other words, the north side of the plant must stay facing the north); these cacti will be identified in the plan and appropriately marked to identify which side faces north.

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

Wildlife

The distribution, status, and habitat affinities of threatened and endangered species known or expected to occur in Arizona and California are discussed in a regional context in Section D.2.1.1.3 of this EIR/EIS. In Arizona sensitive wildlife species are known or expected to occur in the general vicinity of the Proposed Project. Sonoran desert tortoise has been identified in several locations, and riparian birds such as yellow billed cuckoo and southwestern willow flycatcher have been documented along the Colorado River. Habitat in the California portion of the Proposed Project supports a diverse assemblage of listed wildlife. Although listed species have been observed in many of the segments the location and type of habitat that occurs in each specific segment dictates the types of sensitive wildlife expected to occur. Table D.2-11 contains a list of the sensitive species expected to occur by segment for the Proposed Project.

Impacts to listed species could be caused by temporary incremental loss of habitat and accidental death of individuals during land clearing, excavation, and grading phases of the Proposed Project. In addition, individuals near the construction area may temporarily abandon their territories due to disturbance from noise and increased human activity. The following discussion highlights construction impacts that would occur to specific threatened or endangered wildlife species.

Table D.2-11. Sensitive Wildlife with High Potential to Occur

Harquahala to Kofa National Wildlife Refuge			
State protected	• Sonoran desert tortoise • osprey		
Federal or State sensitive species	• cheese-weed moth lacewing • common chuckwalla • banded Gila monster	• desert rosy boa • western burrowing owl • cave myotis	• pocketed free-tailed bat • big free-tailed bat • California leaf-nosed bat
Kofa National Wildlife Refuge			
State protected	• Sonoran desert tortoise		
Federal or State sensitive species	• cheese-weed moth lacewing • common chuckwalla • banded Gila monster	• desert rosy boa • western burrowing owl • cave myotis	• pocketed free-tailed bat • big free-tailed bat • California leaf-nosed bat
Kofa National Wildlife Refuge to Colorado River			
Federal and State protected	• razorback sucker • Mohave fringed-toed lizard • Sonoran desert tortoise	• California brown pelican • Clark's grebe • snowy egret	• great egret • osprey
Federal or State sensitive species	• cheese-weed moth lacewing • common chuckwalla • banded Gila monster	• desert rosy boa • western burrowing owl • cave myotis	• pocketed free-tailed bat • big free-tailed bat • California leaf-nosed bat
Palo Verde Valley (Colorado River to Midpoint Substation)			
Federal or State listed species	• razorback sucker • California black rail • Yuma clapper rail	• western yellow-billed cuckoo • Gila woodpecker • least Bell's vireo	• willow flycatcher • elf owl

Table D.2-11. Sensitive Wildlife with High Potential to Occur

Federal or State sensitive species	• Colorado River toad • Couch's spadefoot • Mojave fringe-toed lizard • Bendire's thrasher • Le Conte's thrasher • Crissal thrasher • Sonoran yellow warbler	• vermillion flycatcher • summer tanager • loggerhead shrike • ferruginous hawk • burrowing owl • Townsend's big-eared bat • cave myotis	• California leaf-nosed bat • Arizona myotis • Yuma myotis • spotted bat • American badger • Nelson's bighorn sheep
Midpoint Substation			
Federal or State listed species	• desert tortoise		
Federal or State sensitive species	• Mojave fringe-toed lizard • Bendire's thrasher • Le Conte's thrasher • Crissal thrasher • summer tanager	• loggerhead shrike • ferruginous hawk • burrowing owl • Townsend's big-eared bat • cave myotis	• California leaf-nosed bat • Arizona myotis • Yuma myotis • spotted bat • American badger
Midpoint Substation to Cactus City Rest Area			
Federal or State listed species	• desert tortoise		
Federal or State sensitive species	• Mojave fringe-toed lizard • Colorado Desert fringe-toed lizard • Le Conte's thrasher • Crissal thrasher	• Bendire's thrasher • loggerhead shrike • prairie falcon • ferruginous hawk • burrowing owl	• San Diego pocket mouse • pallid bat • western mastiff bat • pocketed free-tailed bat
Cactus City Rest Area to Devers Substation			
Federal or State listed species	• Coachella Valley fringe-toed lizard	• desert tortoise	• peninsular bighorn sheep
Federal or State sensitive species	• Coachella Valley giant sand-treader cricket • Coachella Valley Jerusalem cricket • flat-tailed horned lizard • Mojave fringe-toed lizard • rosy boa	• northern red-diamond rattlesnake • California horned lark • Le Conte's thrasher loggerhead shrike • prairie falcon • ferruginous hawk	• golden eagle • burrowing owl • Palm Springs pocket mouse • Palm Springs round-tailed ground squirrel • western yellow bat
Devers Substation to East Border of Banning			
Federal or State listed species	• arroyo toad • mountain yellow-legged frog	• desert tortoise • least Bell's vireo	• peninsular bighorn sheep
Federal or State sensitive species	• Coachella Valley giant sand-treader cricket • Coachella Valley Jerusalem cricket • San Diego horned lizard • northern red diamond rattlesnake • two-striped garter snake • rosy boa	• Le Conte's thrasher • vermillion flycatcher • brown-crested flycatcher • loggerhead shrike • yellow warbler prairie falcon • Cooper's hawk • ferruginous hawk • golden eagle • burrowing owl	• northwestern San Diego pocket mouse • Palm Springs pocket mouse • Los Angeles pocket mouse • Palm Springs round-tailed ground squirrel • spotted bat • western yellow bat
Banning and Beaumont			
Federal or State listed species	• mountain yellow-legged frog • least Bell's vireo	• Stephens' kangaroo rat • peninsular bighorn sheep	
Federal or State sensitive species	• western spadefoot • San Diego horned lizard • northern red diamond rattlesnake • mountain plover • loggerhead shrike	• ferruginous hawk • golden eagle • burrowing owl • Dulzura pocket mouse • northwestern San Diego pocket mouse	• Los Angeles pocket mouse • San Diego desert woodrat • San Diego black-tailed jackrabbit • western yellow bat • American badger

Table D.2-11. Sensitive Wildlife with High Potential to Occur

Calimesa and San Timoteo Canyon			
Federal or State listed species	• willow flycatcher • southwestern willow flycatcher	• least Bell's vireo • golden eagle	
Federal or State sensitive species	• western spadefoot • San Diego horned lizard • loggerhead shrike • California horned lark • southern California rufous-crowned sparrow	• yellow warbler • Cooper's hawk • ferruginous hawk • golden eagle • northwestern San Diego pocket mouse	• Los Angeles pocket mouse • San Diego desert woodrat • western yellow bat
San Bernardino Junction to Vista Substation			
Federal or State listed species	• coastal California gnatcatcher	• San Bernardino kangaroo rat	•
Federal or State sensitive species	• western spadefoot • San Diego horned lizard • loggerhead shrike	• southern California rufous-crowned sparrow • Cooper's hawk • burrowing owl	• northwestern San Diego pocket mouse • Los Angeles pocket mouse • western yellow bat
San Bernardino Junction to San Bernardino Substation			
Federal or State listed species	None		
Federal or State sensitive species	• western spadefoot • mountain plover • loggerhead shrike	• Cooper's hawk • burrowing owl • northwestern San Diego pocket mouse	• western yellow bat • American badger

Invertebrates. There is no indication that any rare or listed invertebrates occur within the Proposed Project area. Two listed species of fairy shrimp, Riverside fairy shrimp and vernal pool fairy shrimp, are known to occur in southwestern Riverside County but have not been documented in the Proposed Project area. Construction of this the Proposed Project would not result in impacts to listed species of invertebrates (Class III).

Fishes. The Proposed Project is located primarily in a desert region that contains limited habitat for fish. The desert washes that occur in this region consist of ephemeral or intermittent drainages that flow as a result of rain events and winter snowmelt. With the exception of two segments, the Kofa National Wildlife Refuge to Colorado River, and the Palo Verde Valley to Midpoint Substation, there is no indication that listed fish occur in the Proposed Project area.

One listed fish species, the razorback sucker, is known to occur in the Colorado River and various irrigation canals located in the region. Construction activities in or along the Colorado River or its tributaries may directly or indirectly affect the razorback sucker. To reduce potential impacts to this species SCE would site towers to avoid sensitive habitats (APM B-1) and allow for the maximum spacing of towers to avoid sensitive features (APM B-13). Construction equipment would be kept out of flowing stream channels except when absolutely necessary to construct crossings (APM W-2), which would minimize direct impacts to the razorback sucker. For tower structures that require placement within an active channel, diversion dikes would be constructed to divert flows and runoff around the structure (APM W-6). This would also minimize impacts on razorback sucker by providing them alternate flows for movement around the structure. Direct impacts to the razorback sucker would be potentially significant (Class II) if construction resulted in mortality or reduction of habitat quality. Because this is a listed species "take" authorization would be addressed through the context of a Biological Opinion.

Indirect effects may occur as a result of the introduction of contaminants into the water from construction vehicles or erosion along the banks as a result of vehicles accessing the construction sites. Implementation of an erosion control plan (APM W-3) would minimize erosion along the banks during and following construction. Impacts to water quality would be potentially significant (Class II) on the fish, especially in portions of the river where the razorback sucker is known to occur, because critical habitat would be affected. Implementation of Mitigation Measure B-7a (Avoid Colorado River) would avoid impacts to razorback sucker by ensuring that construction equipment remains out of aquatic habitat

Mitigation Measure for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat

B-7a **Avoid Colorado River.** All tower pads, equipment laydown areas, and pulling sites would be located outside flowing portions of the Colorado River and flowing tributaries of the river.

Amphibians. Three listed amphibians, desert slender salamander, arroyo toad, and mountain yellow legged frog are have limited potential to occur within three project segments including Devers Substation to East Border of Banning, Banning to Beaumont, and Calimesa to San Timoteo. Even though these segments are located within the range of these species, habitat conditions or known recorded occurrences of these species do occur in or adjacent to the construction area.

Whitewater River supports suitable habitat for arroyo toad, but it is located upstream of the crossing of the Proposed Project. Because the Proposed Project would span the Whitewater River and construction activities would not occur in habitat adjacent to the river, the project is not expected to impact this species. Habitat for the desert slender salamander would not be affected as this species is known to occur at only two locations in the San Jacinto/Santa Rosa Mountains, areas outside the project footprint. Similarly, impacts to the Mountain yellow-legged frog are not expected as the habitat located near the Whitewater River crossing is not considered suitable for this species.

San Timoteo Creek also contains suitable habitat for arroyo toad, but this species has not been documented near the crossing of the Proposed Project. Focused surveys conducted by the San Bernardino County Museum did not detect the species upstream from the San Timoteo Canyon Road Bridge. Reports of vocalizing male arroyo southwestern toads have been reported for the area downstream of Alessandro Road which is approximately seven miles downstream of the Proposed Project ROW. Focused surveys conducted during the 1999 breeding season did not detect this species near Alessandro Road. In addition, the transmission line spans San Timoteo Creek and construction would not occur in habitat where toads have been located. However, arroyo toads have been known to migrate up to 1 1/2 mi. from any water source, to upland habitats for dispersal and in search of aestivation sites. Still, direct impacts to arroyo toad or suitable habitat for this species would be not be expected to occur and would be considered less than significant (Class III).

Mountain yellow legged frog has been reported in to occur in the San Gorgonio River near Banning Peak approximately 2.5 miles south of the eastern portion of the Beaumont to Banning segment. Habitat at the San Gorgonio River where the transmission line would span the river is not suitable for this species. In addition, the Proposed Project would not impact riparian habitat and have limited impacts at one tower removal location (T150) on the western bank of the San Gorgonio River and at three tower removal locations (T166, T167, and M75-T2) in the tributary to the San Gorgonio River. Suitable habitat for sensitive amphibians does not occur any of these tower removal locations. Therefore, the construction of the Proposed Project is not expected to result in adverse impacts to Mountain yellow-legged frog or habitat utilized by this species.

With the exception of these three segments, there is no indication that listed amphibians are present in the Proposed Project area. Surveys conducted of the project area did not detect the presence of listed amphibian species in the remaining segments. Most of the segments of the Proposed Project do not fall within the range nor support the appropriate habitat requirements for any listed amphibian species that were determined to have a high or moderate potential to occur. Construction of the Proposed Project would not result in significant impacts to listed species of amphibians. In addition, the Proposed Project is not expected to impact designated Critical Habitat for listed amphibians. Although no sensitive amphibians were identified in this segment SCE would implement APM B-16 (Conduct pre-construction surveys) prior to construction. No additional mitigation is recommended at this time.

Reptiles. The Proposed Project area supports three listed reptiles including the Sonoran desert tortoise (Arizona), Coachella Valley fringe-toed lizard, and populations of tortoise in California.

Desert Tortoise. In Arizona each of the Proposed Project segments contains Sonoran desert scrub habitat that has the potential to support desert tortoise. In addition, a juvenile desert tortoise was identified during surveys conducted in the Kofa to Palo Verde Valley segment west of the Dome Rock Mountains. Although Sonoran desert tortoise was not found during surveys of the other Arizona segments and the area has not been designated as critical habitat for this species, the habitat is still considered suitable for desert tortoise. In addition, desert tortoises are known to occasionally travel long distances of up to several miles or more.

Populations of desert tortoise have also been identified in several of the California segments including Midpoint Substation to Cactus City Rest Area, Cactus City Rest Area to Devers Substation, and Devers Substation to East Border of Banning. The Palo Verde Valley to Midpoint segment contains Sonoran desert scrub habitat that has the potential to support desert tortoise in the western portion of this segment, between the agricultural areas and the Midpoint Substation. Although this species has not been found during surveys of this segment and the area has not been designated as critical habitat for this species, the habitat is still considered suitable for desert tortoise.

Midpoint Substation to Cactus City Rest Area. This segment is located in Sonoran desert scrub habitat that is within the known geographic range of desert tortoise. Occupied habitat generally occurs from the eastern portion of this segment (MP E133) and extends to the Cactus City Rest Area (MP E188.2). Surveys conducted in this segment indicate the highest density of tortoises appears to be located between MPs E151 and E188.2. This area encompasses a section of the route near Alligator Rock (approximately MP E155) that traverses near the foothills of the Chuckwalla Mountains. Surveys in this area found a high incidence of both tortoise and tortoise sign. Desert scrub and dry desert wash communities located east of MP E133 are considered potential habitat for tortoise even though this species was not observed during previous surveys.

Critical Habitat. Construction in this segment would result in impacts to designated critical habitat for the desert tortoise. The ROW would pass through designated critical habitat commencing just east of Wiley's Well Road (MP E121.7) to east of the Cactus City Rest Area (MP 188.2).

Cactus City Rest Area to Devers Substation. Desert tortoises were observed from the Cactus City Rest Area west to MP E196 during surveys conducted in 2005. In addition, an isolated desert tortoise was reported near MP E198.6 in 2003. In this segment high densities of desert tortoises are expected to occur primarily in the desert scrub habitat located east of Indio. Limited observations of this species have occurred in the Coachella Valley and where it does occur, this species probably occurs in only limited numbers. Even though tortoises appear to be very sparsely distributed in the desert scrub habitats located west of Indio, the desert scrub and dry desert wash habitat are considered potential habitat for this species.

Critical Habitat. Designated critical habitat for the desert tortoise is located from the Cactus City Rest Area (MP E188.2) west to approximately MP E191. Impacts to designated critical habitat would include the permanent removal of habitat resulting from construction of the 11 towers and from construction of access and spur roads.

Devers Substation to East Border of Banning. Desert tortoises have been reported to occur west of Highway 62 between MPs W4.3 and W8.2. Even though tortoises appear to be very sparsely distributed in this area, the desert scrub and dry desert wash habitat are considered potential habitat for this species.

Critical Habitat. Construction of this segment of the Proposed Project would not impact designated critical habitat for the desert tortoise.

Construction activities would adversely affect the Sonoran Desert tortoise and may result in injury or mortality during surface disturbing activities. Other impacts may include nest and/or burrow destruction, alteration of their seasonal activities, and degradation of their habitat during the construction and maintenance activities associated with the transmission line. Use of construction vehicles and routine maintenance operations could result in injury or death to desert tortoises through vehicle collisions. This is especially true with juvenile desert tortoises that are difficult to see due to their small size and profile. In addition, desert tortoises seeking shade under parked vehicles or equipment could be crushed when vehicles and equipment are moved.

Construction activities also have the potential to degrade desert tortoise habitat by compacting the soil. This leads to the reduction of vegetation and promotes loss of soil and nutrients, reduces water absorption, and increases the difficulties in digging burrows. Construction activities can also introduce or increase the spread of non-native plant species, further degrading tortoise habitat.

Newly constructed transmission line towers may also provide artificial perches and nest sites for ravens, which prey on young desert tortoises. Although APM B-20 would design transmission lines to reduce the likelihood of nesting by ravens, there is still a potential that newly constructed transmission lines would provide perch sites for the raven.

Project construction would also result in the loss of suitable habitat for the Sonoran Desert tortoise. APM B-14 would serve to minimize habitat loss, and native habitat would be restored in areas disturbed during construction under APM B-19. In Arizona, habitat loss in Category II management areas would be limited to approximately one linear mile in the Eagletail Mountains, and habitat loss in Category III management areas would consist of approximately eight linear miles in the Big Horn Mountains.

Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Even with the implementation of project mitigation it is possible that construction activities would result in the incidental "Take" of desert tortoise. To comply with the provisions of the Endangered Species Act (ESA), SCE would be required to complete consultation under Section 7/10 of the ESA.

In addition to the APMs described above the following mitigation measures would be implemented to reduce impacts to desert tortoise to less than significant levels (Class II).

SCE would implement construction practices that require the operator of a vehicle to inspect under each vehicle to ensure that no animals have taken shelter from the sun (APM B-5). Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to Sonoran Desert Tortoise in Arizona and desert tortoise in California would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant. Even with the implementation of APMs and mitigation measures it is possible that construction activities would result in the incidental "Take" of desert tortoise. To comply with the provisions of the Endangered Species Act (ESA), SCE would be required to complete consultation under Section 7/10 of the ESA. In addition to the APMs described above the following mitigation measure would be implemented to reduce impacts to desert tortoise.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (tortoise)

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan.**

B-7b **Conduct pre-construction tortoise surveys.** Prior to construction, SCE shall survey the transmission line corridor for desert tortoise burrows and pallets within fourteen (14) days preceding construction. Tortoise burrows and pallets encountered within the construction zone (if any) will be conspicuously flagged by the surveying biologist(s) and avoided during all construction activities.

- During construction activities, SCE shall inspect under equipment and vehicles prior to moving equipment. If tortoises are encountered, the vehicle will not be moved until such animals have voluntarily moved to a safe distance away from the parked vehicle or a qualified biologist moves the tortoise.
- SCE shall monitor construction activities in all areas with the potential to support desert tortoise.
- Desert tortoises will be handled only by a FWS/CDFG permitted and authorized tortoise handler and only when necessary. New latex gloves will be used when handling each desert tortoise to avoid the transfer of infectious diseases between animals. Desert tortoises will be moved the minimum distance possible within appropriate habitat to ensure their safety. In general, desert tortoises will not be moved in excess of 1,000 feet for adults and 300 feet for hatchlings.
- Desert tortoises that are found above ground and need to be moved will be placed in the shade of a shrub. All desert tortoises removed from burrows will be placed in an unoccupied burrow of approximately the same size as the one from which it was removed. All excavation of desert tortoise burrows will be done using hand tools, either by, or under the direct supervision of, an authorized tortoise handler. If an existing burrow is unavailable, an authorized tortoise handler will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original burrow. Desert tortoises moved during inactive periods will be monitored for at least two days after placement in the new burrows to ensure their safety. An authorized tortoise handler will be allowed some judgment and discretion to ensure that survival of the desert tortoise is likely.

- If desert tortoises need to be moved at a time of the day when ambient temperatures could harm them (less than 40 degrees F or greater than 90 degrees F), they will be held overnight in a clean cardboard box. These desert tortoises shall be kept in the care of an authorized tortoise handler under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes will be appropriately discarded after one use.
- All desert tortoises moved will be marked for future identification. An identification number using the acrylic paint/epoxy covering technique should be placed on the fourth costal scute. No notching would be authorized.

B-7c **Purchase mitigation lands for impacts to tortoise habitat.** Following construction, SCE shall acquire lands to compensate for the loss of tortoise habitat within the Category II and III management areas in Arizona and California. The amount of land to be acquired will depend on the acreage of disturbance within these management areas. Acquired lands will be in a nearby area of good tortoise density and within tortoise habitat. BLM and SCE shall conduct a field inspection of the disturbed areas after completion of construction of the transmission line to determine the exact acreage required for compensation. The lands purchased will be transferred to the United States and be administered by the BLM. Land may be transferred to the BLM and/or incorporated into an existing management area.

Coachella Valley Fringe-Toed Lizard. Coachella Valley fringe-toed lizard a State endangered and federally threatened species is known to occur in blow sand areas within the Cactus City Rest Area to Devers Substation section of the Proposed Project.

Cactus City Rest Area to Devers Substation. This species occurs in the Coachella Valley Preserve and in some of the sand dunes and blow sands areas located in the undeveloped portions of Coachella Valley. Surveys conducted in 2005 identified suitable blow sand habitat areas within the ROW in this segment between MPs E219.2 and E220 and MPs E224.5 and E225.2 (Greystone, 2005). This species also likely occurs in suitable blow sand areas that occur adjacent to the ROW for the Proposed Project.

Critical Habitat. Designated critical habitat for the Coachella Valley fringe-toed lizard is located between MPs E209.3 and E215. Impacts to designated critical habitat would include the permanent removal of habitat resulting from construction of the 21 towers and from construction of access and spur roads in this segment.

Construction activities conducted in this segment could result in impacts this species. Construction in areas adjacent to blow sand habitat may also impact habitat for the Coachella Valley fringe-toed lizard by creating barriers to the movement of sands. To reduce potential impacts to this species SCE would implement APMs B-26, B-33, B-34, and B-36 which specifically address the Coachella Valley fringe-toed lizard and its habitat. As this species is a State and federally listed any activity that results in a possible "take" would be fully addressed through consultation with the CDFG and USFWS. The ROW also contains designated critical habitat for the Coachella Valley fringe-toed lizard between MPs E209.3 and E215. Impacts to designated critical habitat would include the permanent removal of habitat resulting from construction of the 21 towers and from construction of access and spur roads. APM B-19 would provide some restoration to areas disturbed by project activities located within designated critical habitat however this measure would not fully mitigate potential loss of habitat or modifications to designated critical habitat. In addition, APM B-34 also provides for restoration of compacted soils within the Coachella Valley Preserve, which is designated critical habitat for this species. This measure would partially address impacts to critical habitat but it would not fully mitigate for the impacts. Therefore, the

impacts resulting from the construction of this segment of the Proposed Project would result in significant impacts on designated critical habitat for the Coachella Valley fringe-toed lizard without mitigation. In addition to the APMs proposed by SCE implementation of Mitigation Measure B-7d (Purchase mitigation lands for impacts to fringe toed-lizard habitat) would reduce potential impacts to listed plants to less than significant levels (Class II).

Mitigation Measure for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Coachella Valley fringe-toed lizard)

B-7d **Purchase mitigation lands for impacts to fringe-toed lizard habitat.** SCE shall purchase or enhance lands for all permanent loss of habitat that are within the Coachella Valley fringe-toed lizard Critical Habitat unless otherwise directed by the USFWS Biological Opinion for the Proposed Project. Mitigation Lands shall be determined in consultation with the USFWS, CDFG, and CPUC.

Birds. Several listed bird species have the potential to occur in or adjacent to the Proposed Project area. Most of the listed bird species are associated with the riparian and wetlands located near the Colorado River, Whitewater River, San Gorgonio Creek, and San Timoteo Creek. Coastal sage scrub communities located in California are also known to support one listed bird species. Some of the species with a high potential to occur in or near segments identified in the Proposed Project include:

- California Black Rail
- Yuma Clapper Rail
- Western Yellow-billed Cuckoo
- Elf Owl
- Gila Woodpecker
- Least Bell's Vireo
- Willow flycatcher
- Southwestern willow flycatcher
- Gilded Flicker
- California brown pelican

Table D.2-11 identifies the sensitive bird species that have the potential to occur by segment. In segments that are not expected to support populations of threatened or endangered plant species; the area either does not contain suitable habitat for listed birds or is located outside the geographical range for any of the listed species of bird that were identified in Table D.2-5 to have a high or moderate potential to occur. In addition, these species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Sections determined to have a moderate or high potential to contain listed bird species are discussed further below.

Kofa National Wildlife Refuge to Colorado River. This Arizona segment is within the known geographical range for the California brown pelican and aquatic habitats utilized by this species are present along limited sections of the proposed route. Consequently, there is a potential for California brown pelican to be present along the route within the vicinity of the Colorado River. The Colorado River is also known to support populations of southwest willow flycatchers, black rail, and Yuma clapper rail. Detailed discussions of these species are addressed in Section D.2.6.4 Palo Verde Valley (Colorado River to Midpoint Substation). Construction activities including noise, vehicle traffic and human presence could result in impacts to nesting pelicans if project-related activities are conducted during the breeding season. Implementation of APM B-7 (No Activities Should Occur in Wetlands) and APM B-21 (No Clearing or Disturbance to Riparian Habitats) would reduce impacts to riparian and wetland vegetation that could support California brown pelican. However, even with the implementation of APMs B-7, B-21, and B-38, the Proposed Project may have significant indirect impacts on listed bird species (Class II) if present. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds), which would prohibit work within 500 feet of nesting birds would reduce impacts to nesting riparian bird species to less than significant levels.

Colorado River to Midpoint Substation. Similar to the Arizona section of the Colorado River, California Black Rail and the Yuma Clapper Rail have the potential to occur in the marsh habitat that occurs along the edge of the Colorado River and in the irrigation canals that support cattails and bulrushes. Other sensitive songbirds are either known to occur or have the potential to utilize riparian habitat including western yellow-billed cuckoo, least Bell's vireo, and southwestern willow flycatcher. Because the Proposed Project would span the Colorado River and the irrigation canals in Palo Verde Valley, the project would likely avoid direct impacts to habitat for these species. However, construction activities including noise, vehicle traffic and human presence could result in impacts to nesting birds if project related activities are conducted during the breeding season. Implementation of APM B-7 (No Activities Should Occur in Wetlands) and APM B-21 (No Clearing or Disturbance to Riparian Habitats) would reduce impacts to riparian and wetland vegetation that could support sensitive species. Even with the implementation of APMs B-7, B-21, and B-38, the Proposed Project may have significant indirect impacts on listed bird species without mitigation. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would reduce impacts to nesting riparian bird species to less than significant levels (Class II).

Devers to East of Banning. The least Bell's vireo is known to occur in riparian habitat in the San Gorgonio River, which is located to the west of this segment of the Proposed Project, and in Snow Creek, which is located to the south of this segment. No suitable habitat for least Bell's vireo or other riparian birds is present in this segment of the Proposed Project.

As these species are primarily riparian obligates who nest in close proximity to standing water and are typically limited to riparian areas that do not occur at in this segment. Construction activities associated with the Proposed Project are not expected top result in impacts to this species (Class III).

Calimesa and San Timoteo Canyon. Construction of this segment of the Proposed Project would potentially impact four listed species of birds, the least Bell's vireo, southwestern willow flycatcher, willow flycatcher, and western yellow-billed cuckoo. These species have the potential to occur in the riparian habitat located at San Timoteo Creek. Because the Proposed Project would span the San Timoteo Creek the project would likely avoid direct impacts to habitat for these species. However, construction activities including noise, vehicle traffic and human presence could result in impacts to nesting birds if project related activities are conducted during the breeding season. Implementation of APM B-7 (No Activities Should Occur in Wetlands) and APM B-21 (No Clearing or Disturbance to Riparian Habitats) would reduce impacts to riparian and wetland vegetation that could support sensitive species. Even with the implementation of APMs B-7, B-21, and B-38, the Proposed Project may have significant indirect impacts on listed bird species (Class II) without mitigation. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would reduce impacts to nesting riparian bird species to less than significant levels.

San Bernardino to Vista Substation. Construction of this segment of the Proposed Project would potentially impact the California gnatcatcher a year round resident in southern California. This species has a high potential to occur in coastal sage scrub and non-native grasslands that are present in this segment. Gnatcatchers could be directly impacted by construction activities through removal of nests and habitat and construction noise, dust, and the presence of project personnel can result in the disruption of breeding or nursery behavior such as incubating or attending the nest. Because the potential exists for this species to occur in the Proposed Project ROW, SCE would implement APM B-37 (focused surveys for coastal California gnatcatchers). In addition, this APM states that SCE should either restore damaged habitat or participate in land set-aside programs, or assist with funding for monitoring programs through the Western Riverside MSHCP. While this APM would reduce potential impacts to California

gnatcatchers it is not specific enough to fully address potential impacts to this species. If gnatcatchers are present within or adjacent to the Proposed Project in this segment, then impacts to coastal sage scrub would be considered significant. Potential impacts to listed species would also have to be evaluated within the context of a Biological Opinion from the USFWS. In addition to the APM proposed by SCE the following Mitigation Measure B-7e (Conduct focused surveys for California gnatcatchers) would be implemented to reduce impacts to less than significant levels.

San Bernardino Junction to San Bernardino Substation. Three listed species of birds, including least Bell's vireo, western yellow-billed cuckoo, and California gnatcatcher, have been documented to occur in riparian habitat within 5 miles of this segment. However, no suitable habitat is present for the least Bell's vireo or western yellow-billed cuckoo. The California gnatcatcher would have a moderate potential to occur in areas supporting populations of sage scrub. No other listed species of birds would be expected to occur in this segment because of a lack of suitable habitat. Therefore, the construction of this segment of the Proposed Project would not be expected to impact any listed species of birds and no additional mitigation is required. Although no listed birds were identified in this segment SCE would implement APM B-16 (Conduct pre-construction surveys) prior to construction.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat

B-5a **Conduct pre-construction surveys and monitoring for breeding birds.**

B-7e **Conduct focused surveys for California gnatcatchers.** SCE shall conduct protocol level surveys for California Gnatcatchers in all areas supporting suitable coastal sage or Riversidean sage scrub habitats that may be affected by the project (San Bernardino to Vista Substation and San Bernardino Junction to San Bernardino Substation). This will include a minimum 300-foot buffer around construction areas. Presence/absence of this species shall be determined prior to construction activities. If direct impacts to coastal California gnatcatcher occupied habitat cannot be avoided, then impacts to this species shall be addressed through either the Section 7 or Section 10(a)(1)(B) Process under the Federal Endangered Species Act of 1973, as amended and consistent with the WRCMSHCP. SCE shall complete compliance with the Federal Endangered Species Act prior to Project construction. After definition of suitable habitat, the following requirements apply:

- Construction activities shall be restricted within coastal sage scrub habitat during the gnatcatcher breeding season (March 15-July 31);
- SCE shall implement the applicable Best Management practices in the WRCMSHCP;
- SCE shall restore, create, or enhance on site coastal sage scrub habitat; and/or
- SCE shall purchase land or mitigation bank credits at an appropriate ratio to offset impacts to gnatcatchers and their habitat.

Mammals

Three State or federally listed mammal species have the potential to occur in or adjacent to the Proposed Project area including peninsular big horn sheep, San Bernardino kangaroo rat, and Stephens' kangaroo rat. These wildlife species are limited to segments located within California. There is no indication that any listed mammals occur in the segments located within the Arizona portion of the Proposed Project. Surveys conducted of the project area in Arizona did not detect the presence of listed mammal species. Although no listed mammal species were identified in Arizona SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Table D.2-11 identifies the sensitive mammals that have the potential to occur by segment. In segments that are not expected to support populations of threatened or endangered mammals; the area either does not contain suitable habitat for or is located outside the geographical range for any of the listed mammals that were identified in Table D.2-5 to have a high or moderate potential to occur. In addition, these species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Sections determined to have a moderate or high potential to contain listed mammals are discussed further below.

Midpoint Substation/Midpoint Substation to Cactus City Rest Area. Habitat in these segments of the Proposed Project does not support a broad diversity of sensitive mammals. Peninsular big horn sheep occurs in the region but this species is not typically observed in lowland areas. Because this is located outside the current range for this species, impacts from construction activities would be less than significant (Class III).

Banning and Beaumont. Construction of this segment of the Proposed Project is not expected to impact any listed species of mammals. One listed species, the Stephens' kangaroo rat, has been documented south of the I-10, approximately 2.5 miles south of this segment. This species has not been documented in or immediately adjacent to this segment of the Proposed Project.

Calimesa and San Timoteo Canyon. Two federally listed endangered mammal species, the San Bernardino kangaroo rat and Stephens' kangaroo rat, have a moderate potential to occur in this segment. These species historically occurred in southwestern San Bernardino County and in the northern portion of Western Riverside County. If these species are present, construction of this segment of the Proposed Project may result in the destruction of habitat and mortality to these species. SCE has indicated that prior to construction surveys for sensitive species would be conducted along the Proposed ROW (APM B-8 and B-16) that habitat for Stephens' kangaroo rat habitat would be avoided, where possible (APM B-39). Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/ Compensation Plan), and B-7f (Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat) would minimize impacts to these species if present. Potential impacts to listed species would also have to be evaluated within the context of a Biological Opinion from the USFWS.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan**

B-7f **Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat.** Prior to the implementation of construction in areas that support suitable habitat for Stephens' kangaroo rat and San Bernardino kangaroo rat (Calimesa and San Timoteo Canyon). SCE shall conduct focused surveys to determine if sign (burrows, scat, and etc.) of these species is present in all areas within 100 feet that would be permanently or temporarily affected by construction activities. All surveys shall be conducted by a qualified biologist who holds the appropriate Federal FWS permits to conduct trapping surveys for these species. If sign is found to be present, then SCE shall conduct focused trapping surveys according to accepted protocols to determine presence/absence of these species. If these species are found, then SCE shall implement measure to avoid direct impacts, including the placement of exclusion fencing around work areas where impacts will occur, trapping of animals from inside impact areas, and placement of those animals outside of exclusion fencing until construction is completed. A qualified biological monitor shall be present during construction to ensure that animals are not harmed. Following completion of construction, SCE shall remove all exclusion fencing and recontour the soils to the pre-construction condition.

D.2.6.1.7 State or Federal Species of Special Concern - Vegetation

Habitat that occurs along the Proposed Project ROW in both Arizona and California has the potential to supports populations of sensitive plants. Potential impacts to sensitive plants would be the same as described for threatened or endangered plant species as described in Section D.2.6.1.6, Threatened or Endangered Species.

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class III)

The Arizona segments of the Proposed Project contains plant species protected under the Arizona Native Plant Law which are discussed above in Impact B-6 Section D.2.6.1.6 Threatened or Endangered Species, no other sensitive plant species have been identified as occurring within the Arizona portion of the Proposed Project and none are expected to occur. Kofa mountain barberry has a low potential to occur along this segment, but it is unlikely to occur along the Proposed Project route. This portion of the Proposed Project does not contain suitable habitat for sensitive plants and is located outside the geographical range for any of the sensitive plant species that were identified in Table D.2-4 to have a high or moderate potential to occur. These species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Implementation of APM B-8 (Conduct pre-construction surveys for rare plants) would reduce potential impacts to sensitive plants (Class III).

Twenty-three sensitive plant species have a high potential to occur and another 23 species have a moderate potential to occur in the California segments of the Proposed Project. Table D.2-10 contains a detailed list of sensitive plants that have a high potential to occur in each segment. The 65 sensitive plant species that are unlikely to occur, or that have a low potential to occur, are discussed in Appendix 7.

Palo Verde Valley to Midpoint Substation. This segment of the Proposed Project supports habitat where one sensitive plant species, Harwood's milkvetch, is known to occur. In addition, two sensitive plant species, foxtail cactus and Wiggins' cholla, have the potential to occur in this segment. In addition, three other sensitive plant species listed by the CNPS as list 2 and 4 have the potential to occur in this area.

Midpoint Substation. Construction of the Midpoint Substation will permanently remove 44 acres of suitable habitat for Harwood's milkvetch and potential habitat for five other sensitive plant species that may occur along this segment. Populations of Harwood's milkvetch, a CNPS List 1B species, have been found in areas adjacent to the Midpoint Substation. In addition, two sensitive plant species, foxtail cactus, a federal species of special concern, and Wiggins' cholla, a CNPS List 3 species, as well as three other sensitive species of plants have a potential to occur in this area.

Midpoint Substation to Cactus City Rest Area. Habitat in this segment supports several sensitive plant species including foxtail cactus a federal species of special concern and four CNPS List 1B plants including Harwood's milkvetch, Orocopia sage, Latimer's woodland gilia, and Mecca aster. Construction of this segment of the Proposed Project could result in direct impacts to both Harwood's milkvetch and foxtail cactus. Harwood's milkvetch occurs between the Midpoint Substation and MP E119. Populations of foxtail cactus have been documented to occur from Alligator Rock (MP E155) west to Red Cloud Mine Road (MP approximately MP E163) and between MP E186, near the I-10 crossing, and Cactus City Rest Area (MP E188.2).

Several other plants considered rare or unique by the CNPS (List 2-4) also occur in this area and may be subject to disturbance from construction activities. Some of these species include desert sand parsley, ayenia, crucifixion thorn, glandular ditaxis, and California ditaxis. Desert spike-moss and Cove's cassia may also be present.

Cactus City Rest Area to Devers Substation. The vegetation communities in Cactus City Rest Area to Devers Substation segment of the Proposed Project occur as a mosaic of undisturbed habitats, agricultural lands, and developed areas. Much of the Coachella Valley between the City of Indio and the Devers Substation has been developed or is in the process of being developed. Habitat in this segment of the Proposed Project is similar to that described in Section D.2.6.16 and supports several sensitive plant species including foxtail cactus a federal species of special concern and CNPS List 1B plants such as Latimer's woodland gilia, and Mecca aster.

Devers Substation to East Banning. Habitat in this segment supports several sensitive plant species including 22 species that have a high potential to occur in this segment of the project. Some of these species include white-bracted spineflower, chaparral sand-verbena, Yucaipa onion, Jaeger's milk vetch, Parry's spineflower, and cliff spurge. Little San Bernardino Mountains gilia, slender woolly-heads, Parish's brittlescale, and long-spined spineflower may also occur. White-bracted spineflower is known to occur within the ROW between the Whitewater River and Cabazon (MPs W11 and W14).

Banning and Beaumont. Habitat in this segment supports several sensitive plant species including 20 species that have a high or moderate potential to occur in this segment of the project. Some of these species include white-bracted spineflower, Yucaipa onion, Jaeger's milk vetch, Plummer's mariposa lily, Parry's spineflower, chaparral sand-verbena, San Jacinto Valley crownscale, and smooth tarplant. Parry's spineflower for example is known to occur in many locations along the ROW near Cabazon, between MPs W10 and W12, which is within 5 miles of the City of Banning (BioResource, 2003).

Calimesa and San Timoteo Canyon. Two sensitive plant species, Jaeger's milkvetch and Plummer's mariposa lily have been documented within this segment of the Proposed Project. In addition, 21 sensitive plant species have a high or moderate potential to occur in this segment. Some of these include Yucaipa onion, Parry's spineflower, California bedstraw, Hall's monardella chaparral sand-verbena, smooth tarplant, long-spined spineflower, many-stemmed dudleya, and round-leaved filaree.

San Bernardino to Vista Substation. One sensitive plant species, Jaeger's milkvetch, has been documented in this segment of the Proposed Project between MPs V0 and V6. In addition 19 sensitive plant species have a high or moderate potential to occur in this segment. Some of these include, Parish's desert-thorn, chaparral sand-verbena, long-spined spineflower, many-stemmed dudleya, round-leaved filaree, Robinson's pepper-grass, and ocellated Humboldt lily.

San Bernardino Junction to San Bernardino Substation. Habitat in this segment of the ROW has the potential to support two CNPS List 1B species, Jaeger's milk-vetch and California bedstraw. Jaeger's milk-vetch is known to occur in the grassland and scrub habitats located along the ROW and may occur in the undeveloped areas between San Bernardino Junction and San Bernardino Substation. In addition nine sensitive plant species have a high or moderate potential to occur in this segment. Some of these include, Pringle's monardella, California muhly, little mousetail, and Parish's gooseberry

To reduce potential impacts to sensitive plants SCE would implement the same conditions identified for listed plant species that was addressed in Impact B-6 Section D.2.6.1.6 Threatened or Endangered Species. APM B-8 (Pre-construction Surveys) and APM B-9 (Transplant Sensitive Cactus) which pro-

vides for detailed surveys of tower locations prior to construction. If sensitive plant species are located SCE has indicated that tower locations would be adjusted to reduce impacts. As required in APM B-8 the methodologies and results of these surveys would be submitted to the BLM for approval by the BLM Authorized Officer. The transplanting treatment plan for these species would also be developed in consultation with the BLM biologist and approved in writing by a BLM Authorized Officer prior to construction. Impacts to sensitive plant species would be reduced to less than significant levels (Class II) through the implementation of APMs and Mitigation Measure B-8a (Conduct surveys for listed plant species). Impacts to listed plant species would also addressed through the context of a biological opinion.

Mitigation Measure for Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plant species

B-8a **Conduct surveys for listed plant species.** SCE shall conduct focused surveys for listed and sensitive plants prior to construction, Surveys shall be conducted during the appropriate floristic period necessary for the identification of sensitive plant species in all suitable habitat located within the project ROW and within 100' of all surface disturbing activities.

Populations of sensitive plants shall be flagged and mapped prior to construction. If listed plants are located during the focused surveys, then modification of the placement of towers, access roads, laydown areas, and other ground disturbing activities would be implemented in order to avoid listed plants. If listed plants cannot be avoided, SCE shall be responsible for the translocation of plants and/or collection of seeds from existing populations that would be impacted and the planting/seeding of these plants in adjacent suitable portions of the ROW that would not be affected by Proposed Project construction or maintenance activities.

D.2.6.1.8 State or Federal Species of Special Concern - Wildlife

Habitat in both Arizona and California has the potential to support a variety of species identified as sensitive by the AGFD, CDFG, BLM, and/or USFWS. Twelve sensitive wildlife species have been observed along the Proposed Project route, and many others have a high or moderate potential to occur due to the presence of suitable habitat or a known occurrence in the vicinity. There are 15 sensitive wildlife species as defined by the BLM and AGFD within Arizona, and 64 sensitive wildlife species in California that have been documented or have a high or moderate potential to occur. Although sensitive species have been observed in many of the segments the location and type of habitat that occurs in each specific segment dictates the types of sensitive wildlife expected to occur. Table D.2-11 contains a list of the sensitive species expected to occur by segment for the Proposed Project.

Potential impacts to sensitive wildlife species would be similar to those discussed for listed wildlife species in Section D.2.6.1.6. The following discussion highlights construction impacts that would occur to specific sensitive wildlife species.

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates. Sensitive invertebrate species were not observed along the project route; however, the Cheese-weed moth lacewing has a moderate potential to occur in the Arizona segments. Although APM B-23 was designed to minimize impacts to creosotebush to benefit Le Conte's thrasher, this would also serve to benefit cheese-weed moth lacewing which is associated with creosotebush communities. Additional surveys, sensitive area avoidance, and pre-cautionary construction measures are included in

APMs B-1, B-3, B-8, B-10, B-12, B-13, B-14, B-16, and B-23. Although suitable habitat for the cheese-weed moth lacewing occurs along the project route, known locations of the species are more than 60 miles south of the Proposed Project. Consequently, implementation of the APMs listed above and avoidance of known locations of cheese-weed moth lacewing makes impacts to this species unlikely. Impacts to this species would be considered less than significant (Class III).

In California two sensitive invertebrates the Coachella Valley giant sand-treader cricket and the Coachella Valley Jerusalem cricket, have a high potential to occur within the Cactus City Rest Area to Devers Substation and Devers Substation to East Border of Banning segments. Although these species are not identified as sensitive by the CDFG or USFWS they are both proposed covered species under the CVMSHCP. To reduce impacts to these species SCE would implement APM B-4 to avoid compaction of sands utilized by these species. With implementation of the APM impacts to these species would be adverse but less than significant.

Fishes. As indicated in Section D.2.6.1.6, the Proposed Project is located primarily in a desert region that contains limited habitat for fish. The desert washes that occur in this region consist of ephemeral or intermittent drainages that flow as a result of rain events and winter snowmelt. With the exception of two segments, the Kofa National Wildlife Refuge to Colorado River and Palo Verde Valley to Midpoint Substation, there is now indication that sensitive fish occur in the Proposed Project area.

To reduce potential impacts to this species SCE would site towers to avoid sensitive habitats (APM B-1) and allow for the maximum spacing of towers to avoid sensitive features (APM B-13). Construction activities would also avoid impacts to water bodies as the project would span the Colorado River and irrigation canals that occur in the Palo Verde Valley. Impacts from degradation of water quality would be avoided through implementation of APM B 7 (Avoidance of Wetland Areas) and AMP B 21 (No Clearing of Riparian Habitat). In addition, SCE would implement APM B-16 (Pre-construction Surveys) in order to identify and detect any sensitive fishes that are present. Implementation of these measures would reduce potential impacts to less than significant (Class II).

Amphibians. There is no indication that any sensitive amphibians occur in the Arizona portion of the Proposed Project. Surveys conducted of the project area did not detect the presence of sensitive amphibian species and impacts would be considered less than significant (Class III). Although no sensitive amphibians were identified in Arizona SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Four sensitive amphibians Couch's spadefoot, western spadefoot, Colorado River toad, and coast range newt have the potential to occur in the California portion of the Proposed Project. These species have a moderate and/or high potential to occur within the Colorado River to Midpoint Substation, Midpoint Substation, Cactus City Rest Area to Devers Substation, Devers Substation to East Border of Banning, Banning and Beaumont, Calimesa and San Timoteo Canyon, and San Bernardino Junction to Vista Substation segments.

Sensitive amphibian species were not identified or expected to occur within the other segments of the Proposed Project. These segments do not fall within the range nor support the appropriate habitat requirements for any sensitive amphibian species that were determined to have a high or moderate potential to occur in this area. Impacts to any sensitive amphibians in these segments would be less than significant (Class III).

Colorado River to Midpoint Substation. The Colorado River toad occurs primarily in aquatic habitat such as the Colorado River and adjacent irrigation canals. Implementation of the Proposed Project would have the potential to adversely impact Couch's spadefoot as a result of the permanent removal of desert scrub habitat and vehicle traffic. This is a highly cryptic species that breed in the ephemeral pools that form during the short but intense rainfall events that occur in this region. Because this species is rarely seen it is difficult to determine the presence of this species until after rain events. The removal of habitat and construction of the towers and laydown areas may result in the direct mortality of this species through mechanical crushing or habitat degradation. This potential impact would be considered significant without mitigation. To reduce potential impacts to this species SCE would implement pre-construction surveys of the project area and conduct routine inspections of the ROW by qualified environmental monitors. In addition to the APMs identified in this document Mitigation Measure B-9a (Conduct pre-construction surveys) and B-9b (Conduct biological monitoring) would reduce impacts to sensitive amphibians to less than significant levels (Class II).

Midpoint Substation/Cactus City Rest Area to Devers Substation. Construction of the Midpoint Substation would result in the permanent removal of 44 acres of suitable habitat for Couch's spadefoot toad, while the laydown area would temporarily remove five acres of suitable habitat. This permanent and temporary loss of habitat and the potential loss of individuals would be a potentially significant (Class II) impact. With implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/ Compensation Plan), B-9a (Conduct pre-construction surveys), and B-9b (Conduct biological monitoring) impacts to sensitive amphibians would be considered less than significant.

Devers Substation to East Border of Banning. The coast range newt has a moderate potential to occur in the Whitewater River, but suitable habitat for this species is not present at the location where the Proposed Project would cross the Whitewater River. In addition, the Whitewater River would be spanned by the Proposed Project and no activities would be conducted within the flood plain. Impacts to this species would be considered less than significant (Class III).

Banning and Beaumont/Calimesa and San Timoteo Canyon/San Bernardino Junction to Vista Substation. Construction of these segments of the Proposed Project would impact habitat that potentially supports the western Spadefoot toad. This species has been documented within five miles of the Proposed Project, and could utilize the grasslands and scrub habitats that occur in these segments. This impact would be considered significant (Class II) without mitigation. Similar to the amphibians identified in other segments SCE would implement APM B-16 (pre-construction surveys of the project area and routine inspections of the ROW by qualified environmental monitors) to reduce impacts. In addition to the APM implementation of Mitigation Measures B-9a (Conduct pre-construction surveys) and B-9b (Conduct biological monitoring) would reduce impacts to less than significant.

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan.**

B-9a **Conduct pre-construction surveys.** SCE shall conduct pre-construction surveys for sensitive wildlife in any area subject to project disturbance. Surveys shall be conducted during a time of year when these species are known to be active. The location of sensitive species identified during the pre-construction surveys shall be identified on project maps.

B-9b **Conduct biological monitoring.** SCE shall conduct biological monitoring of the project area including the laydown, staging, access roads, and any area subject to project disturbance. The biological monitor shall look for sensitive wildlife species that may be located within or

immediately adjacent to the construction areas. If sensitive species are found, the biological monitor shall move them out of harm's way (listed species require take authorization) to avoid direct impacts to these species. In the event that the wildlife species may cause harm to the biologist, the biologist shall notify the construction crews and monitor the species until it moves out of harms way. The results of all monitoring shall be recorded in daily monitoring notes that shall be included as part of the required monitoring reports for the project. The SCE shall notify the CPUC/BLM if any sensitive species are located during construction of the project.

Reptiles. Sonoran desert scrub and coastal sage scrub communities are known to support numerous sensitive reptiles. In the Proposed Project area 12 sensitive reptile species have either been observed or have a high to moderate potential to occur within the segments. In Arizona, these include the chuck-walla, banded Gila monster, Colorado fringe toed lizard, and desert rosy boa. Four species have been observed in California portions of the Proposed Project including the San Diego horned lizard, Colorado Desert fringe-toed lizard and Mojave fringe-toed lizard, rosy boa, and northern red-diamond rattlesnake.

Table D.2-11 identifies the reptiles that have the potential to occur by segment. In segments that are not expected to support populations of sensitive reptiles; the area either does not contain suitable habitat or is located outside the geographical range for any of the listed species that were identified in Table D.2-5 to have a high or moderate potential to occur. In addition, these species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Sections determined to have a moderate or high potential to contain reptiles are discussed below for informational purposes.

Construction activities conducted for the Proposed Project could result in impacts to the sensitive reptile species listed in Table D.2-5. SCE would implement APMs B-3, B-5, B-8, B-16, and B-17 to reduce impacts to these species. However the impacts would still be potentially significant (Class II) within all segments of the Proposed Project, except for the San Bernardino Junction to San Bernardino Substation segment where the construction impacts would be considered less than significant (Class III).

Construction impacts consist of the potential for direct and indirect mortality or injury of sensitive reptiles due to construction vehicles or equipment, and/or the temporary or permanent loss of suitable habitat. Permanent and temporary loss of habitat could occur at laydown/staging areas, along temporary access/ spur roads, and in other areas that are temporarily disturbed during construction, such as tower locations. These Class II impacts would be reduced to less than significant levels with the implementation of Mitigation Measures B-9b (Conduct Biological Monitoring), B-9c (Implement a Worker Environmental Awareness Program), and B-9d (Conduct pre-construction reptile surveys).

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-9b **Conduct biological monitoring.**

B-9c **Implement a Worker Environmental Awareness Program.** A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews by a qualified biologist(s) provided by SCE and approved by the CPUC/BLM prior to the commencement of construction activities. Training materials and briefings shall include but not be limited to, discussion of the Federal and State Endangered Species Acts, the consequences of noncompliance with these acts, identification and values of sensitive plant and wildlife species and significant natural plant community habitats, fire protection measures, hazardous substance spill prevention

and containment measures, and review of mitigation requirements. Training materials and a course outline shall be provided to the CPUC and BLM for review and approval at least 30 days prior to the start of construction. SCE shall provide to the CPUC and BLM a list of construction personnel who have completed training, and this list shall be updated by SCE as required when new personnel start work. No construction worker may work in the field for more than 5 days without receiving the WEAP.

B-9d **Conduct pre-construction reptile surveys.** Prior to construction, SCE shall conduct surveys in areas of suitable habitat for common chuckwalla, banded Gila monster, and desert rosy boa within 48 hours prior to the start of construction activities. If common chuckwallas, banded Gila monsters and/or desert rosy boas are found on the construction site, they will be relocated to nearby suitable habitat outside the construction area. Following the clearance surveys, exclusion fencing will be erected or a biological monitor will be onsite during construction activities.

- If potentially suitable burrows or rock piles are found, they will be checked for occupancy. Occupied burrows will be flagged and avoided (employing a 50-foot buffer) during construction. If the burrow cannot be avoided, it will be excavated and the occupant relocated to an unoccupied burrow outside the construction area and of approximately the same size as the one from which it was removed. If an existing burrow is unavailable, the biologist will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original. Trenches, holes, or other excavations will be examined for banded Gila monster prior to filling. If individuals are found, the biological monitor will relocate them to nearby suitable habitat.
- During construction, if a common chuckwalla, banded Gila monster, and/or desert rosy boa occur on the project site, construction activities adjacent to the individual's location will be halted and the animal will be allowed to move away from the construction site. If the individual is not moving, a qualified biologist will relocate it to nearby suitable habitat outside the construction area. It shall be placed in the shade of a shrub.

Harquahala to Kofa National Wildlife Refuge. The common chuckwalla, banded Gila monster, and desert rosy boa have a high potential to occur on rocky slopes, foothills, and other rocky areas along this segment of the Proposed Project; however, there are no recorded occurrences of these species in the vicinity of this segment.

Kofa National Wildlife Refuge. Common chuckwalla, banded Gila monster, and desert rosy boa would have a high potential to be impacted by construction activities in this segment. While common chuckwalla has not been recorded in the vicinity of the Proposed Project, an occurrence of banded Gila monster was recorded in the Livingston Hills within three miles of the proposed ROW and the desert rosy boa was recorded in the western Kofa Mountains within five miles of the ROW.

Kofa National Wildlife Refuge to Colorado River. The common chuckwalla, banded Gila monster, desert rosy boa, and Mohave fringe-toed lizard all have a high potential to occur within this segment.

Palo Verde Valley (Colorado River to Midpoint Substation). The Mojave fringe-toed lizard has been found in the desert scrub habitat located along this segment of the ROW. The area also supports potential habitat for the Colorado Desert fringe-toed lizard.

Midpoint Substation. Construction of the Midpoint Substation would result in potential impacts to flat-tailed horned lizard, Colorado Desert fringe-toed lizard, Mojave fringe-toed lizard, banded Gila monster, and rosy boa. These species have the potential to occur in the habitat in the vicinity of the Midpoint Substation and laydown areas. The Mojave fringe-toed lizard had been observed at this site in areas with sandy soils and well-developed sand dunes.

Midpoint Substation to Cactus City Rest Area. Construction of this segment of the Proposed Project would remove habitat for Mojave fringe-toed lizard and Colorado Desert fringe-toed lizard. These species have been observed in this segment and may be subject to mortality from project activities. Flat-tailed horned lizard, banded Gila monster, and rosy boa may also occur in this area. Potential habitat for these species (areas with sandy soils and well developed sand dunes) extends from the Midpoint Substation west to approximately MM E126. The destruction of habitat and potential loss of individuals of Mojave fringe-toed lizard and Colorado Desert fringe-toed lizard would be potentially significant (Class II).

Cactus City Rest Area to Devers Substation. Construction of this segment of the Proposed Project would remove habitat for Mojave fringe-toed lizard and Colorado Desert fringe-toed lizard. These species have been observed in this segment and may be subject to mortality from project activities. Flat-tailed horned lizard, the northern red-diamond rattlesnake, and rosy boa may also occur in this area. Potential habitat for Flat-tailed horned lizard and the Mojave fringe-toed lizard (sandy soils) occurs near the eastern portion of this segment, especially east of the Cactus City Rest Area. The rosy boa likely occurs in the rockier areas within this segment, while the northern red-diamond rattlesnake is most likely to occur in the westernmost portion of this segment

Devers Substation to East Border of Banning. Construction of this segment of the Proposed Project would remove habitat for San Diego horned lizard and northern red diamond rattlesnake. These species have been observed in this segment and may be subject to mortality from project activities. Flat-tailed horned lizard, rosy boa, Belding's orange throated whiptail, and silvery legless lizard may also occur in this area. Two-striped garter snake, which potentially occurs in the Whitewater River, would not be affected by the Proposed Project as the project would span the Whitewater River.

Banning and Beaumont. Construction of this segment of the Proposed Project would remove habitat for San Diego horned lizard and northern red diamond rattlesnake. These species have been observed in this segment and may be subject to mortality from project activities. Flat-tailed horned lizard, rosy boa, Belding's orange throated whiptail, and silvery legless lizard may also occur in this area. Two-striped garter snake, which potentially occurs in the Whitewater River, would not be affected by the Proposed Project, as the project would span the Whitewater River.

Calimesa and San Timoteo Canyon. Six sensitive reptiles have the potential to occur in this segment, including San Diego horned lizard, northern red diamond rattlesnake, rosy boa, Belding's orange throated whiptail, silvery legless lizard, and two-striped garter snake.

San Bernardino Junction to Vista Substation. Construction of this segment of the Proposed Project would remove potential habitat where five sensitive reptile species These include San Diego horned lizard, northern red diamond rattlesnake, rosy boa, Belding's orange throated whiptail, and silvery legless lizard.

San Bernardino Junction to San Bernardino Substation. There is no indication that any listed reptiles occur in this segment of the Proposed Project. Construction of this segment of the Proposed Project would not result in any impacts to listed species of amphibians. Impacts to sensitive amphibians would

be considered less than significant (Class III) and no additional mitigation is proposed. Although no listed amphibians were identified in this segment SCE would implement APM B-16 (Conduct pre-construction surveys) prior to construction.

Birds. Several sensitive bird species have been observed or have the potential to occur within the Proposed Project area. Similar to listed bird species, many sensitive birds are associated with the riparian and wetland habitats located near the Colorado River, Whitewater River, San Gorgonio Creek, and San Timoteo Creek. Some of the species that have been documented in or near segments identified in the Proposed Project include:

- prairie falcon
- burrowing owl
- loggerhead shrike
- California horned lark
- Le Conte's thrasher

Table D.2-11 identifies the sensitive bird species that have been documented or that have the potential to occur by segment. Similar to that discussed for listed bird species, in segments that are not expected to support populations of sensitive bird species; the area either does not contain suitable habitat for these birds or is located outside the geographical range for any of the sensitive species of bird that were identified in Table D.2-5 to have a high or moderate potential to occur. In addition, these species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Impacts to sensitive bird species would be minimized through the implementation of APMs and Mitigation Measures. In general, potential impacts to sensitive birds would be the same as identified for listed bird species. To reduce potential impacts to nesting birds and raptors SCE would implement APMs prior to construction of the project. These include APMs B-8 and B-16 that require additional detailed surveys within a 100-foot buffer of project areas and the avoidance of sensitive sites if present. These APMs, by themselves, would not sufficiently ensure that impacts to migratory birds would be less than significant. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would reduce potential impacts to sensitive birds to less than significant levels. Additional measures that address potential impacts to specific species including burrowing owls, are addressed below.

Harquahala to Kofa National Wildlife Refuge. The Proposed Project would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, potential bird strikes on high tension wires, and disturbance of nesting activities. The burrowing owl is known to occur in this segment of the ROW and an osprey was observed north of this segment near the CAP canal and the Big Horn Mountains. However, because the preferred habitat of osprey is near water it is unlikely that this species would occur in the vicinity of the project ROW and unlikely it would be impacted by construction activities. The Proposed Project may displace burrowing owls from wintering or nesting burrows or cause disturbance to resident birds. During construction activities, owl burrows may be crushed by construction equipment. Burrowing owls may also be displaced or abandon their burrows as a result of human interference and noise during construction activities.

Preconstruction surveys, the avoidance pf sensitive areas, and pre-cautionary construction measures are included in APMs B-3, B-5, B-16, and B-17. However, there is still potential for direct and indirect mortality of the western burrowing owl, and construction-related impacts would be potentially significant (Class II). Implementation of Mitigation Measure B-9e (Conduct pre-construction surveys and owl relocation) would reduce impacts to burrowing owls to less than significant levels. Mitigation Measure B-9e (Conduct pre-construction surveys and owl relocation) presents additional detail for the aforementioned APMs, and would therefore supersede these APMs.

Kofa National Wildlife Refuge. Suitable habitat for western burrowing owl also occurs within this segment. The Proposed Project would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat and the disturbance of nesting activities. Project construction could displace or result in the mortality of burrowing owls. APMs B-3, B-5, B-16, and B-17 would help to reduce impacts to burrowing owls, but impacts would remain potentially significant (Class II). Implementation of Mitigation Measure B-9e (Conduct pre-construction surveys and owl relocation) and B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would reduce impacts to burrowing owls and sensitive birds to less than significant levels.

Kofa National Wildlife Refuge to Colorado River. The Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat and disturbance of nesting activities. Several sensitive bird species are known to occur in this segment of the Proposed Project including Clark's grebe, snowy egret, great egret, osprey, and burrowing owl.

The Proposed Project would not result in direct removal of habitat for any sensitive bird species that utilize riparian or wetland habitats, including Clark's grebe, snowy egret, great egret or osprey. These species utilize riparian habitats and suitable habitat for these species would not be directly impacted within this segment. Implementation of APMs B-7, B-21, and B-38, which include the avoidance of riparian habitats, would result in no impact to these species as a result of the Proposed Project.

Project construction could displace or result in the mortality of burrowing owls. In addition to the APMS implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-9e (Conduct pre-construction surveys and owl relocation) would reduce impacts to sensitive birds to less than significant levels.

Palo Verde Valley (Colorado River to Midpoint Substation). As described above, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat and disturbance of nesting activities. Several sensitive bird species are known to occur in this segment of the Proposed Project including:

- Burrowing owl
- Vermillion Flycatcher
- Crissal thrasher
- Sonoran yellow warbler
- Summer tanager
- White-faced ibis
- Brown-crested flycatcher
- Yellow breasted chat
- Le Conte’s thrasher
- Bendire’s thrasher
- Mountain plover
- Ferruginous hawk.
- Peregrine falcon

The Proposed Project would not result in direct removal of habitat for any sensitive bird species that utilize riparian or wetland habitats, including vermillion flycatcher, Crissal thrasher, Sonoran yellow warbler, summer tanager, white-faced ibis, brown-crested flycatcher, or yellow breasted chat. These species utilize riparian habitats and suitable habitat for these species would not be directly impacted within this segment of the ROW. Implementation of APMs B-7, B-21, and B-38, which include the avoidance of riparian habitats, would result in no impact to these species as a result of the Proposed Project.

Permanent removal of desert scrub as a result of tower construction and temporary removal of desert scrub habitat resulting from laydown/staging areas would result in a loss of potential habitat for Le Conte’s thrasher, Bendire’s thrasher, mountain plover, and ferruginous hawk (foraging habitat). The

permanent loss of habitat for these species in this segment of the Proposed Project is relatively small and would be considered an adverse but not significant impact (Class III). Implementation of APM B-19 and Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) would further reduce potential impacts to these species.

The burrowing owl is known to occur in the agricultural lands of this segment of the ROW along access roads and irrigation canals. The Proposed Project may displace burrowing owls from wintering or nesting burrows or cause disturbance to resident birds. Construction activities, including the construction of towers, the establishment of staging/laydown facilities, stringing of conductors, and the increased presence of humans, may result in direct or indirect impacts to this species. Construction activities could result in direct displacement of breeding owls and abandonment of nesting burrows. The displacement of burrowing owls from resident burrows would be considered a significant impact. In addition to the APMs proposed by SCE, implementation of B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-9e (Conduct pre-construction surveys and owl relocation) would be required to reduce impacts to less than significant levels (Class II).

Midpoint Substation. Construction of the Midpoint Substation and establishment of the temporary laydown area would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat and disturbance related to construction activities. Construction activities and the increased presence of humans may result in direct or indirect impacts to burrowing owls and other sensitive birds that potentially occur in the vicinity. Construction activities could result in direct displacement of breeding owls and abandonment of nesting burrows. The displacement of burrowing owls from resident burrows would be considered a significant impact without mitigation.

Construction of the Midpoint Substation would result in the permanent removal of 44 acres and temporary removal of 5 acres of suitable desert scrub habitat utilized by Le Conte's thrasher, Bendire's thrasher, mountain plover, and ferruginous hawk (foraging habitat). These losses of potential habitat would be considered a significant impact. Implementation of APMs and Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), and B-9e (Conduct pre-construction surveys and owl relocation) would reduce impacts to sensitive birds to less than significant levels (Class II).

Midpoint Substation to Cactus City Rest Area. Three sensitive bird species — Le Conte's thrasher, loggerhead shrike, and prairie falcon — are known to occur within this segment of the Proposed Project. In addition, ferruginous hawk, Bendire's thrasher, and Crissal thrasher have a high potential to occur in this segment. Mountain plover and vermillion flycatcher may also be present but due to habitat conditions in this segment have only a moderate potential to occur. As described in Section 2.6.1.6, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, potential bird strikes on high tension wires, and disturbance of nesting activities.

Riparian habitat that may be utilized by nesting birds would not be removed in this segment of the Proposed Project. Therefore impacts to vermillion flycatcher are not expected. Substantial impacts to foraging habitat for the ferruginous hawk would not occur as this is a wide ranging species. Impacts to other birds from displacement or noise would be reduced through APM B-22. This APM is designed to minimize impacts to Crissal thrasher and Le Conte's thrasher and their habitat by avoiding mesquite dominated areas and creosote bush scrub. Implementation of the AMPs and Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would reduce impacts to less than significant (Class II).

Cactus City Rest Area to Devers Substation. Burrowing owl and California horned lark, both California species of special concern, have been documented in this segment. In addition the California horned lark was documented within the Coachella Valley Preserve in 2003, but it may potentially occur along most of this segment (Environmental Planning Group, 2003). Several other birds including raptors may frequent the area or nest in or adjacent to the ROW. Section D.2.2.7 contains a detailed species account for this area. As described above in Section D.2.6.1.6, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, potential bird strikes on high tension wires, and disturbance of nesting activities.

Implementation of the AMPs and Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-9e (Conduct pre-construction surveys and owl relocation) would reduce potential impacts to less than significant (Class II).

Devers Substation to East Border of Banning. Le Conte's thrasher was observed in desert scrub habitat located along this segment. Ten other sensitive birds are known or expected to occur in this segment. Some the sensitive raptors that may occur include Cooper's hawk, ferruginous hawk, golden eagle, prairie falcon, burrowing owl, and long-eared owl. Other species include riparian birds such as brown-crested flycatcher, vermillion flycatcher, and yellow warbler. Loggerhead shrike and mountain plover may occur in upland areas.

Riparian species would not be affected by the Proposed Project because they are typically found in woodland or riparian habitat (Cooper's hawk, vermillion flycatcher, yellow warbler, and long-eared owl) which would not be affected during construction in this segment. The remainder of these species is known to forage or nest in desert scrub habitat and could be subject to project disturbance. As described above in Section D.2.6.1.6, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, and disturbance of nesting activities. Implementation of the AMPs and Mitigation Measures B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-9e (Conduct pre-construction surveys and owl relocation) would reduce potential impacts to less than significant (Class II).

Banning and Beaumont. Habitat located in this segment is known or expected to support a variety of sensitive birds. Some the sensitive raptors that may occur include ferruginous hawk, golden eagle, peregrine falcon, and burrowing owl. Other species include Loggerhead shrike, mountain plover, and California horned lark, which may occur in upland areas. In addition, southern California rufous-crowned sparrow and Bell's sage sparrow could occur in chaparral habitat.

The golden eagle and/or peregrine falcon could potentially nest in the hilly areas in between the San Gorgonio River (MP W18) and the developed areas in Banning and Beaumont (MM W20). The other sensitive bird species could potentially utilize the open habitat areas or the denser scrub habitats in this segment.

As described above in Section D.2.6.1.6, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, and disturbance of nesting activities. Implementation of the AMPs and Mitigation Measures B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-9e (Conduct pre-construction surveys and owl relocation) would reduce potential impacts to less than significant (Class II).

Calimesa and San Timoteo Canyon. Habitat located in this segment is known or expected to support a variety of sensitive birds Some the sensitive raptors that may occur include ferruginous hawk, golden

eagle, loggerhead shrike, and burrowing owl. Other species include California horned lark, southern California rufous-crowned sparrow, Bell's sage sparrow, white-tailed kite, long-eared owl, yellow warbler, and yellow-breasted chat. Riparian birds could be subject to disturbance at San Timoteo Creek.

As described above in Section D.2.6.1.6, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, and disturbance of nesting activities. Implementation of the APMs and Mitigation Measures B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-9e (Conduct pre-construction surveys and owl relocation) would reduce potential impacts to less than significant (Class II).

San Bernardino Junction to Vista Substation. Habitat located in this segment is known or expected to support a variety of sensitive birds including Cooper's hawk, burrowing owl, loggerhead shrike, southern California rufous-crowned sparrow, Bell's sage sparrow, and white-tailed kite. As described above in Section D.2.6.1.6, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, and disturbance of nesting activities. Implementation of the AMPs and Mitigation Measures B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-9e (Conduct pre-construction surveys and owl relocation) would reduce potential impacts to less than significant (Class II).

San Bernardino Junction to San Bernardino Substation. Habitat located in this segment is known or expected to support a variety of sensitive birds including Cooper's hawk, burrowing owl, loggerhead shrike, southern California rufous-crowned sparrow, Bell's sage sparrow, and white-tailed kite.

Construction in this segment of the Proposed Project would impact suitable habitat for three sensitive species of birds, including Cooper's hawk, burrowing owl, and California horned lark. Tri-colored blackbird has a moderate potential for occurrence because and has been observed within five miles of this segment. However, suitable habitat for this species is not present within this segment of the ROW.

As described above in Section D.2.6.1.6, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, and disturbance of nesting activities. Implementation of the AMPs and Mitigation Measures B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-9e (Conduct pre-construction surveys and owl relocation) would reduce potential impacts to less than significant (Class II).

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan.**

B-5a **Conduct pre-construction surveys and monitoring for breeding birds.**

B-9e **Conduct pre-construction surveys and owl relocation.** Prior to construction, SCE shall conduct pre-construction surveys for the western burrowing owl. Surveys shall be conducted prior to ground disturbance activities in appropriate areas within the potential impact areas of the project to determine the presence of burrowing owls and to ensure clearance of these areas. If active owl burrows are discovered during pre-construction surveys, owls would be evicted from the burrows using either active or passive techniques as recommended by the BLM and Burrowing Owl Consortium. Owl relocation, as well as discouragement of owls from returning to the site, will occur in the following manner:

- During the non-breeding season (September 1 through January 31), burrowing owls occupying the Proposed Project site will be evicted by passive relocation. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in.
- If construction is to occur during the breeding season (February 1 through August 31) and prior to the relocation of the owls, 75-meter (246-foot) protective buffers would be maintained around burrows occupied by owls until a BLM approved biologist approves other action. Other actions could include passive relocation if it is determined that owls have not begun laying eggs or postponement of construction in the area until the young are fledged and no longer dependent upon the nest burrow.
- Once fledglings are capable of independent survival and adult non-breeding owls have successfully been relocated offsite, potential owl habitat (squirrel burrows) would be collapsed in order to keep the owls from returning. Ground squirrels would be removed from the site by trapping and relocation or by other approved means. Following squirrel removal, existing ground squirrel burrows would be destroyed.

Mammals. Sensitive mammal species have not been observed within the project area; however 26 sensitive mammal species have a high or moderate potential to occur to occur in or adjacent to the Proposed Project.

Table D.2-11 identifies the sensitive mammal species that have the potential to occur by segment. In segments that are not expected to support sensitive mammals; the area either does not contain suitable habitat for or is located outside the geographical range for any of the sensitive mammals that were identified in Table D.2-5 to have a high or moderate potential to occur. In addition, these species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Sections determined to have a moderate or high potential to contain sensitive mammals are discussed further below.

Harquahala to Kofa National Wildlife Refuge. Sensitive mammal species expected to occur in the Harquahala to Kofa National Wildlife Refuge segment of the Proposed Project include pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, cave myotis, and desert bighorn sheep. While there are no recorded occurrences of pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, or cave myotis in the vicinity of this segment of the Proposed Project, suitable habitat for these species is present, and there is potential for them to occur along the route. Construction and maintenance activities are not expected to impact sensitive bat species as the habitat located in this segment of the ROW is not expected to support nesting or breeding activities for these species. Bats typically roost in trees, caves, rock crevices, or old buildings. The construction of the Proposed Project would not impact roosting habitat nor would it impact foraging habitat for these species because riparian and wetland habitats would be avoided.

Desert bighorn sheep and deer may be present at the time of construction. Bighorn sheep in the vicinity of this segment of the Proposed Project may be disturbed or scared off as a result of the construction noise, but these impacts would be temporary and limited to the construction phase of the project. To reduce potential impacts construction vehicles would remain on established roads (APMs B-3 and B-17) to the maximum extent practicable in order to avoid unnecessary disturbances to wildlife, and vehicles would be required to drive at low speeds in tortoise habitat (APM B-29), which would also reduce the potential for collisions with other wildlife. Impacts to bighorn sheep that are present near Harquahala Mountain and Burnt Mountain, south of the Big Horn Mountains Wilderness Area would be considered

significant (Class II). Implementation of Mitigation Measure B-9f (Perform construction outside of breeding and lambing period) would reduce impacts to less than significant levels. The Proposed Project would also comply with the AGFD and BLM management policies for bighorn sheep.

Mitigation Measure for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-9f **Perform construction outside of breeding and lambing period.** Construction activities conducted within suitable habitat near Burnt Mountain, Harquahala Mountain, and Kofa NWR shall not occur during the period of the year when bighorn sheep are lambing (from January 1 to April 30).

Kofa National Wildlife Refuge. Impacts to sensitive mammal species would be largely the same as described for the Harquahala to Kofa National Wildlife Refuge segment, although wild free-roaming horses and burros do not occur within this segment. Construction and maintenance activities are not expected to have an impact on sensitive bat species as the habitat located in this segment of the ROW would not be expected to support nesting or breeding activities of sensitive bats.

Disturbances associated with construction may result in reduced reproductive success or mortality of young desert bighorn sheep as a result of abandonment. Due to the proximity of desert bighorn sheep lambing areas within the Kofa NWR, impacts to the sheep during breeding and lambing periods would be potentially significant (Class II) without mitigation. APMs B-3, B-17, and B-29 would help to reduce impacts associated with construction vehicles. These APMs would reduce the potential for collisions with bighorn sheep, but impacts would remain potentially significant. Implementation of Mitigation Measure B-9f (Perform construction outside of breeding and lambing period) would reduce impacts to less than significant levels. The Proposed Project would comply with AGFD and BLM management policies for the bighorn sheep.

Kofa National Wildlife Refuge to Colorado River. Impacts to sensitive mammal species would be the same as described for the Harquahala to Kofa National Wildlife Refuge segment. Sensitive mammal species expected to occur in the Harquahala to Kofa National Wildlife Refuge segment of the Proposed Project include pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, and cave myotis. Desert bighorn sheep may also occur. Construction and maintenance activities are not expected to have an impact on sensitive bat species as the habitat located in this segment of the ROW would not be expected to support nesting or breeding activities of sensitive bats. Impacts to bighorn sheep could adverse, but would be less than significant (Class III), and no additional mitigation is proposed.

Palo Verde Valley (Colorado River to Midpoint Substation). The only sensitive mammal species expected to occur in this segment of the Proposed Project include pallid bat, San Diego pocket mouse, Colorado River cotton rat, American badger, and Yuma mountain lion. Construction and maintenance activities are not expected to have an impact on sensitive bat species as the habitat located in this segment of the ROW would not be expected to support nesting or breeding activities of sensitive bats. Bats typically roost in trees, caves, rock crevices, or old buildings. The construction of the Proposed Project will not impact roosting habitat nor will it impact foraging habitat for these species because the riparian and wetland habitats will be avoided. Pallid bats are known to forage on terrestrial prey items including scorpions and could be impacted if night time construction activity was proposed.

The Proposed Project would result in permanent and temporary removal of potential burrowing and foraging habitat for the San Diego pocket mouse, Colorado River cotton rat, and American badger and it would result in the loss of potential foraging habitat for the Yuma mountain lion. Construction at

tower sites and the establishment of laydown/staging areas will reduce potential habitat for these species however the footprint of the towers is relatively small and most construction impacts would be temporary. The impact resulting from the temporary removal of potential habitat for these species would be considered adverse but not significant (Class III). To further reduce potential impacts from construction activities and habitat loss SCE would implement APM B-1, B-3, B-7, and B-19. Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), would restore habitat in areas temporarily disturbed by project construction. Implementation of Mitigation Measures B-1a, B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), and B-9g (Conduct pre-construction surveys and relocation for American badger) would minimize impacts to sensitive plant and wildlife species through the avoidance of sensitive plants and through restoration of habitat following construction (Class II). To minimize potential impacts from mechanical crushing to American badgers Mitigation Measure B-9g (Conduct pre-construction surveys and relocation for American badger) would be implemented.

Midpoint Substation. Construction of the Midpoint Substation could result in potential impacts to or remove habitat for a variety of sensitive species including:

- California Leaf-Nosed Bat
- Pallid Bat
- Townsend's Big-Eared Bat
- Spotted Bat
- Yellow Bat
- Arizona Myotis
- Fringed Myotis
- Cave Myotis
- Yuma Myotis
- Western Mastiff Bat
- Pocketed Free-Tailed Bat
- Big Free-Tailed Bat
- San Diego Pocket Mouse
- American Badger
- Yuma Mountain Lion
- Nelson's Big Horn Sheep
- San Diego pocket mouse

Disturbance to habitat would be similar to that described for the previous segment. Construction activities would result in the removal of approximately 44 acres of habitat that could support populations of these species. The loss of this habitat could affect foraging opportunities for small rodents, bats, and the Yuma mountain lion. However, many of these species are wide ranging and forage across a large geographic area. The habitat in the vicinity of the Midpoint Substation is considered suitable habitat for these species, although these species have not been observed during surveys of the site.

Construction-related impacts to bat species would not likely occur in this area. There are no roosting or hibernacula sites identified in this area and construction would be limited to daylight hours. Pallid bats that forage exclusively on the ground could be impacted by night time travel on the existing access roads. These species are also very susceptible to disturbance and even hiking can result in the abandonment of roosts (Pierson and Brown, 1992). The permanent and temporary loss of habitat and potentially the loss of individuals would be considered a significant impact without mitigation. Impacts to American badger and bighorn sheep are addressed previously in Section D.2.6.1.8.

Temporary impacts of the proposed laydown area would also result in the disturbance of 5 acres of suitable habitat for pallid bat, San Diego pocket mouse and American badger. With the implementation of restoration (APM B-19), this temporary loss of potential habitat for these species would be considered adverse, but not significant (Class III).

To reduce or avoid impacts to sensitive species SCE would implement APMs that include pre-construction surveys and the avoidance of sensitive wildlife. Implementation of Mitigation Measures B-1a (Prepare

and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), and B-9g (Conduct pre-construction surveys and relocation for American badger) would reduce the level of the impacts to sensitive wildlife species to les than significant levels (Class II).

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan.**

B-5a **Conduct pre-construction surveys and monitoring for breeding birds.**

B-9b **Conduct biological monitoring.**

B-9g **Conduct pre-construction surveys and relocation for American badger.** Prior to construction, SCE shall conduct pre-construction surveys for American badger. Surveys will be conducted prior to ground disturbance activities in areas that contain habitat for this species. Badger dens located outside the project area shall be flagged for avoidance. Unoccupied dens located in the right of way shall be covered to prevent the animal from re-occupying the den prior to construction. Occupied dens in the ROW shall be hand-excavated if avoidance is not possible. Dens shall be hand–excavated only before or after the breeding season (February 1–May 30). Any relocation of badgers shall take place after consultation with the BLM and CDFG.

Midpoint Substation to Cactus City Rest Area. There are a variety of sensitive mammal species that may occur in the vicinity of the Midpoint Station to Cactus City Rest Area segment of the Proposed Project. Of primary concern in this segment is the potential impact to roosting bat species. Construction activities may have an impact on the three sensitive bat species that have a high potential to occur in this area including pallid bat, western mastiff bat, and pocketed free-tailed bat. Seven other species of bat California leaf-nosed bat, Townsend's big-eared bat, spotted bat, Arizona myotis, fringed myotis, cave myotis, and big free-tailed bat have a moderate potential to occur along this segment. These species typically roost in trees, rock crevices, or caves that are common in the steeper, rockier areas along this segment of the Proposed Project. This impact would be considered significant if the bats are flushed from nursery colonies. Impacts to roosting bats could be avoided by identifying locations of possible roosting colonies and scheduling work activities to avoid work adjacent to these areas during the breeding season. While not all bats are migratory a number of species common to this area winter in warmer climates outside the project area. However, some species are year round residents and hibernate in the project area. Disruption of hibernacula would also be considered a significant impact. To reduce impacts to bat species SCE would implement APM B-8 and Mitigation Measure B-9h (Conduct pre-construction surveys for roosting bats). Implementation of these measures would reduce impacts to less than significant levels (Class II).

Construction may also affect the American badger in this segment by destroying burrows or causing disturbance as a result of construction activities.

To reduce or avoid impacts to sensitive species SCE would implement APMs that include pre-construction surveys and the avoidance of sensitive wildlife. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), B-9g (Conduct pre-construction surveys and relocation for American badger), and B-9h (Conduct pre-construction surveys for roosting bats) would reduce the level of the impacts to sensitive wildlife species to less than significant levels (Class II).

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan.**

B-5a **Conduct pre-construction surveys and monitoring for breeding birds.**

B-9b **Conduct biological monitoring.**

B-9g **Conduct pre-construction surveys and relocation for American badger.**

B-9h **Conduct pre-construction surveys for roosting bats.** SCE shall conduct surveys focused surveys for suitable roosting habitat or nursery sites for sensitive bats at the tower location, access/spur roads, and laydown/staging areas that occur in rocky areas or in areas where caves or old mines are present. If suitable roosting/nursery sites are found, then focused surveys shall be conducted to determine if the sites support sensitive bat species. If sensitive bat species occur at these sensitive roosting/nursery sites, then tower-specific adjustments and adjustments of the locations of access/spur roads and laydown/staging areas shall be made to avoid these sites. If towers, access/spur roads, and/or laydown/staging areas cannot avoid these sites, then construction of the towers, roads, and establishment of laydown/staging areas shall be delayed until the breeding cycles for the sensitive bats are completed. SCE shall consult with a bat specialist in order to determine when the breeding cycle for the sensitive bats are completed. SCE shall document the results of the surveys and any avoidance of roosting/nursery sites for sensitive bats.

Cactus City Rest Area to Devers Substation. There are a variety of sensitive mammal species that may occur in the vicinity of the Midpoint Station to Cactus City Rest Area segment of the Proposed Project. This includes the American badger and roosting bats. Impacts to these species have been previously discussed above in Section D.2.6.1.8.

Construction of this segment of the Proposed Project would also directly impact suitable habitat for the Palm Springs round-tailed squirrel, a State species of special concern. This species is known to occur in the vicinity of the Proposed Project near Dillon Road and northwest of Indio. Other populations are scattered around the Coachella Valley. Suitable habitat occurs in the ROW from a point near Dillon Road, north of the town of Coachella, and west to the Devers Substation. Construction of 95 towers and access/spur roads between Dillon Road and Devers Substation would potentially result in permanent removal of suitable habitat for this species. In addition, temporary removal of potentially suitable habitat will also occur at the construction areas around each of the towers, the laydown/staging areas, and along temporary access/spur roads. Indirect impacts to this species may occur from the presence of humans and construction vehicles and equipment and from the increased level of traffic on the access roads. APM B-25 addresses the avoidance of mesquite hummock habitat for the purpose of benefiting the Coachella Valley round-tailed squirrel. If present, temporary and permanent impacts to habitat for the Coachella Valley round-tailed squirrel would be considered significant without mitigation. In addition to the AMPs proposed by SCE, Mitigation Measures B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce impacts to the Coachella Valley round-tailed squirrel to less than significant levels (Class II).

To reduce or avoid impacts to sensitive species SCE would implement APMs that include pre-construction surveys and the avoidance of sensitive wildlife. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), B-9g (Conduct pre-construction surveys and relocation for American badger), B-9h (Conduct pre-construction surveys for roosting bats), and B-9i (Schedule construction when the Coachella Valley round-tailed

squirrel is dormant) would reduce the level of the impacts to sensitive wildlife species to less than significant levels (Class II).

Devers Substation to East Border of Banning. Construction of this segment of the Proposed Project would directly impact suitable habitat for the Coachella Valley round-tailed ground squirrel as a result of permanent and temporary removal of habitat. Suitable habitat for this species occurs in a patchy distribution between Devers Substation and Cabazon. The impacts for this species would be the same as those described above for the Cactus City Rest Area to Devers Substation segment. The temporary and permanent removal of habitat for the Coachella Valley round-tailed ground squirrel would be considered potentially significant (Class II).

Construction of this segment may have the potential to impact sensitive bat species at have a high or moderate potential to occur in this segment. Some of these include California leaf-nosed bat, pallid bat, spotted bat, western yellow bat, western mastiff bat, and pocketed free-tailed bat. Townsend's big-eared bat, fringed myotis, Yuma myotis, and big free-tailed bat may also occur. Construction of this segment may also impact potential habitat for Palm Springs pocket mouse, Los Angeles pocket mouse, north-western San Diego pocket mouse, pallid San Diego pocket mouse, Los Angeles pocket mouse, San Diego black-tailed jackrabbit, and American badger. The potential impacts to these sensitive species and habitat for these species would be the same as those described above for the Cactus City Rest Area to Devers Substation segment. To reduce or avoid impacts to sensitive species SCE would implement APMs that include pre-construction surveys and the avoidance of sensitive wildlife. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), B-9g (Conduct pre-construction surveys and relocation for American badger), B-9h (Conduct pre-construction surveys for roosting bats), and B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce the level of the impacts to sensitive wildlife species to less than significant levels (Class II).

Banning and Beaumont. Construction of this segment may have the potential to impact sensitive bat species that have a high or moderate potential to occur in this segment. Some of these include western yellow bat, pallid bat, Townsend's big-eared bat, spotted bat, fringed myotis, and western mastiff bat. Construction of this segment may also impact potential habitat for San Diego black-tailed jackrabbit, Los Angeles pocket mouse, northwestern San Diego pocket mouse, Dulzura pocket mouse, pallid San Diego pocket mouse, Los Angeles pocket mouse, San Diego desert woodrat, and American badger. The potential impacts to these sensitive species and habitat for these species would be the same as those described above for the Cactus City Rest Area to Devers Substation segment. To reduce or avoid impacts to sensitive species SCE would implement APMs that include pre-construction surveys and the avoidance of sensitive wildlife. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), B-9g (Conduct pre-construction surveys and relocation for American badger), B-9h (Conduct pre-construction surveys for roosting bats), and B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce the level of the impacts to sensitive wildlife species to less than significant levels (Class II).

Calimesa and San Timoteo Canyon. Construction of this segment may have the potential to impact sensitive bat species that have a high or moderate potential to occur in this segment. Some of these include western yellow bat, pallid bat, Townsend's big-eared bat, spotted bat, fringed myotis, and western mastiff bat. Construction of this segment may also impact potential habitat for Los Angeles pocket mouse, northwestern San Diego pocket mouse, Dulzura pocket mouse San Diego black-tailed jackrabbit, Los

Angeles pocket mouse, northwestern San Diego pocket mouse, Dulzura pocket mouse, San Diego black-tailed jackrabbit, and San Bernardino white-eared pocket mouse.

The potential impacts to these sensitive species and habitat for these species would be the same as those described above for the Cactus City Rest Area to Devers Substation segment. To reduce or avoid impacts to sensitive species SCE would implement APMs that include pre-construction surveys and the avoidance of sensitive wildlife. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), B-9g (Conduct pre-construction surveys and relocation for American badger), B-9h (Conduct pre-construction surveys for roosting bats), and B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce the level of the impacts to sensitive wildlife species to less than significant levels (Class II).

San Bernardino Junction to Vista Substation. Construction of this segment may have the potential to impact sensitive bat species that have a high or moderate potential to occur in this segment. Some of these include western yellow bat, pallid bat, Townsend's big-eared bat, spotted bat, fringed myotis, and western mastiff bat. Construction of this segment may also impact potential habitat for Los Angeles pocket mouse, northwestern San Diego pocket mouse, Dulzura pocket mouse San Diego black-tailed jackrabbit, Los Angeles pocket mouse, northwestern San Diego pocket mouse, Dulzura pocket mouse, San Diego black-tailed jackrabbit, and San Bernardino white-eared pocket mouse.

The potential impacts to these sensitive species and habitat for these species would be the same as those described above for the Cactus City Rest Area to Devers Substation segment. To reduce or avoid impacts to sensitive species SCE would implement APMs that include pre-construction surveys and the avoidance of sensitive wildlife. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), B-9g (Conduct pre-construction surveys and relocation for American badger), B-9h (Conduct pre-construction surveys for roosting bats), and B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce the level of the impacts to sensitive wildlife species to less than significant levels (Class II).

San Bernardino Junction to Vista Substation. Construction of this segment may have the potential to impact sensitive bat species that have a high or moderate potential to occur in this segment. Some of these include western yellow bat, pallid bat, Townsend's big-eared bat, spotted bat, fringed myotis, and western mastiff bat. Construction of this segment may also impact potential habitat for Los Angeles pocket mouse, northwestern San Diego pocket mouse, Dulzura pocket mouse San Diego black-tailed jackrabbit, Los Angeles pocket mouse, northwestern San Diego pocket mouse, Dulzura pocket mouse, San Diego black-tailed jackrabbit, and San Bernardino white-eared pocket mouse.

The potential impacts to these sensitive species and habitat for these species would be the same as those described above for the Cactus City Rest Area to Devers Substation segment. To reduce or avoid impacts to sensitive species SCE would implement APMs that include pre-construction surveys and the avoidance of sensitive wildlife. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), B-9b (Conduct biological monitoring), B-9g (Conduct pre-construction surveys and relocation for American badger), B-9h (Conduct pre-construction surveys for roosting bats), and B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce the level of the impacts to sensitive wildlife species to less than significant levels (Class II).

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-1a **Prepare and implement a Habitat Restoration/Compensation Plan.**

B-5a **Conduct pre-construction surveys and monitoring for breeding birds.**

B-9b **Conduct biological monitoring.**

B-9g **Conduct pre-construction surveys and relocation for American badger.**

B-9h **Conduct pre-construction surveys for roosting bats.**

B-9i **Schedule construction when the Coachella Valley round-tailed squirrel is dormant.** SCE shall conduct pre-construction surveys for Coachella Round Tailed Squirrels prior to construction to identify locations of nesting colonies. Placement of footings, roads, and laydown areas shall avoid nesting colonies of this species. If this species is identified within the ROW, construction activities shall be scheduled only during periods when this species is dormant (between August 1 and February 28).

D.2.6.1.9 State and Federal Jurisdictional Habitats

Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands (Class II and Class III)

Although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are present in the desert portion of the Proposed Project (e.g., from Harquahala Switchyard to Midpoint Substation). In addition, jurisdictional drainages and intermittent creeks were noted throughout the western portion of the Proposed Project. Wetlands that fall under the jurisdiction of the ACOE and CDFG were noted during the biological reconnaissance surveys of this segment along the Colorado River and potentially in some of the irrigation channels located throughout the Palo Verde Valley. Prior to conducting any activities in this area, SCE would obtain authorization from the Regional Water Quality Control Board via a Clean Water Act 401 Water Quality Certification, ACOE Clean Water Act 404 permit, and CDFG Section 1602 Streambed Alteration Agreement.

The transmission line would span the Colorado River and most of the desert washes and ephemeral drainages where jurisdictional waters may occur. Construction activities would also result in removal of habitat from discharge or fill into the Whitewater River and adjacent desert washes. The Whitewater River is located between MPs W3.2 and W3.5 and large desert washes are located between MPs W6.2 and W6.3 and between MPs W6.9 and W7.1. Smaller desert washes are located near MPs W9.0, W9.4, W10.3, W11.2, and W12.0.

Along the Banning and Beaumont segment, construction activities would result in removal of habitat from, or discharge of fill into, the San Gorgonio River and various drainages that are present in this segment. The Proposed Project would cross the San Gorgonio River between MPs W17.6 and W18.1, as well as a large tributary to the San Gorgonio River between MPs W11.9 and W12.1. In addition, it would cross well-vegetated drainages between MPs W18.6 and W 18.7 and MPs W19.9 and W20.0. No new towers would be constructed within these drainages; however, Towers T149A and T150 that are located within and immediately adjacent to San Gorgonio River would be removed.

Within the Calimesa and San Timoteo Canyon segment, the Proposed Project would cross through San Timoteo Creek at approximately MP W29.6. This section of San Timoteo Creek is spanned by the existing transmission lines and no towers are proposed to be replaced or removed within the creek. Indirect impacts to San Timoteo Creek may occur during reconductoring of the transmission lines.

West of San Timoteo Canyon, the Proposed Project does not cross any large watercourses or drainages but numerous small ephemeral drainages that may fall under the jurisdiction of the ACOE and CDFG are present along the undeveloped, hilly portions of the route. Reconductoring and replacement of existing towers in this segment are not expected to directly impact these ephemeral drainages.

Construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats). However, the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Any removal of habitat in desert washes or construction impacts in desert washes, the Whitewater River, the San Gorgonio River, or their tributaries would be considered a significant but mitigable impact (Class II). Impacts to Jurisdictional Waters and Wetlands would be reduced to a less than significant level with the implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan).

Mitigation Measure for Impact B-10: Construction activities would result in adverse effects to Jurisdictional Waters and Wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

D.2.6.1.10 Wildlife Corridors and Nursery Sites

Impact B-11: Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites (Class II)

The desert portion of the Proposed Project (e.g., from Harquahala Switchyard to Midpoint Substation) consists of desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events. Subsequently, most of the washes do not contain perennial flows and are not expected to support fish and other species that are dependent on permanent water sources.

The transmission line will span the Colorado River, the San Gorgonio River, the Whitewater River, San Timoteo Creek, and the drainage canals in the Harquahala Valley and Palo Verde Valley. The project would span these waters, and construction activities would utilize existing public access roads. Therefore, no impacts to the movement of fish within these waters would occur. In addition, native wildlife nursery sites that may be associated with these upstream and downstream areas of the Colorado River would not be affected by the project.

However, native wildlife nursery sites, primarily bat nursery colonies, may be associated with the rock crevices and caves in the Chuckwalla Mountains, Orocopia Mountains, and in the hilly, undeveloped areas near San Bernardino Junction. The construction of towers and other construction activities in and adjacent to these mountains could potentially disrupt bat nursery colonies. APMs B-8 and B-16 address conducting additional surveys and avoidance of sensitive features and vegetation. These APMs do not cover impacts to bat nursery colonies and therefore, the impacts to the sensitive bat nursery sites may be potentially significant (Class II). Implementation of Mitigation Measure B-9h (Conduct pre-construction surveys for roosting bats) would reduce the level of impacts to bat nursery colonies to less than significant levels (Class II).

Mitigation Measure for Impact B-11: Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites

B-9h Conduct pre-construction surveys for roosting bats.

Impact B-12: Construction activities would result in adverse effects to linkages and wildlife movement corridors (Class III)

Linkages and corridors facilitate regional animal movement, and are generally centered around waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. The Proposed Project would span the following waterways: Colorado River, San Gorgonio River, and San Timoteo Creek. The Colorado River serves as a wildlife movement corridor and migratory corridor for birds. The San Gorgonio River serves as a primary linkage between areas in the San Bernardino Mountains and the San Gorgonio Pass. San Timoteo Creek serves as a primary linkage for wildlife species between the Badlands in Western Riverside County and the areas to the north in San Bernardino County. This corridor is utilized by bobcats and other large mammals, as well as by riparian birds, for movement between territory areas and during migration.

No permanent impacts would occur to wildlife movement corridors. Although vehicle traffic associated with construction activities would occur within the vicinity of the aforementioned waterways, these activities would be in accordance with existing roads and would not result in direct impacts to habitat in the movement corridors. The disturbance associated with project construction would result in temporary impacts to wildlife utilizing the waterways and adjacent habitat as a movement corridor. A temporary increase in traffic and activities in these areas would not impede the movement of wildlife and would not affect the nocturnal movement of wildlife. Therefore, impacts to wildlife movement corridors would be considered adverse but less than significant (Class III).

D.2.6.1.11 Plans, Policies, and Ordinances

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (Class II and Class III)

The Proposed Project would traverse the jurisdictions of the BLM, Riverside and San Bernardino Counties, and the Cities of Coachella, Cathedral City, Banning, Beaumont, Calimesa, Redlands, Loma Linda, Colton, and Grand Terrace. Plans developed by these jurisdictions were reviewed to determine if there were any biological resources policies that would apply to the construction and operation of the Proposed Project. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with the Proposed Project and identified policies that required further evaluation in this EIR/EIS. See Appendix 2 for a complete discussion of applicable biological resources policies.

The relevant biological resources that were brought forward for further analysis address issues, such as conservation of wetlands and riparian areas, protection of listed and special status wildlife and plant species, preservation of certain habitats and plant communities, and protection and enhancement of open space. Table D.2-12 lists the relevant policies that were determined to need further analysis, and presents the basis for the Proposed Project's consistency with these policies. The Proposed Project would not conflict with any of these relevant policies identified in Table D.2-12.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
Bureau of Land Management *Applicable Segments: Palo Verde Valley, Midpoint Substation, Midpoint Substation to Cactus City Rest Area, Cactus City Rest Area to Devers Substation, Devers Substation to East Border of Banning*	California Desert Conservation Area (CDCA) Plan (1980 as Amended)		
	Policy 3: Protective provisions, stipulations, or objectives for wildlife will be considered in all permits, licenses, activity plans, etc., to avoid or minimize habitat deterioration.	Yes	This EIR/EIS evaluates potential impacts to wildlife and its habitats, and identifies APMs that would reduce impacts that would result from the Proposed Project, and Mitigation Measures that would minimize any impacts to wildlife or its habitats. These APMs and Mitigation Measures are considered in the project plans, as well as permits such as APM B-20, which would require SCE to obtain a permit for taking ravens or their nests.
	Goal 2: Manage those plant species on the federal and State lists of threatened and endangered species and their habitats so that the continued existence of each is not jeopardized. Stabilize and, where possible, improve populations through management and recovery plans developed and implemented cooperatively with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.	Yes	The Proposed Project would not jeopardize the continued existence of plant species on federal and State lists of endangered and threatened species. SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. These APMs would allow SCE to avoid identified sensitive natural resources when siting the towers. In addition, the Proposed Project identifies Mitigation Measure B-8a (Conduct Surveys for Listed Plant Species), which would identify and avoid locations of listed plant species; or, if necessary, transplant certain plant individuals.
	Goal 3: Manage those plant species officially designated as sensitive by the BLM for California and their habitats so that the potential for federal or State listing is minimized. Include consideration of sensitive species habitats in all decisions such that impacts are avoided.	Yes	The Proposed Project would not increase the potential for the listing of BLM sensitive plant species on federal and State lists of endangered and threatened species. SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. These APMs would allow SCE to avoid identified sensitive natural resources when siting the towers.
	Goal 4; Manage unusual plant assemblages (UPAs) so that their continued existence is maintained. In all actions, include consideration of UPAs so that impacts are avoided, mitigated or compensated.	Yes	SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. These APMs would allow SCE to avoid identified sensitive natural resources when siting the towers.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
Riverside County	Riverside County Comprehensive General Plan (2003)		
Applicable Segments: Palo Verde Valley; Midpoint Substation, Midpoint Substation to Cactus City Rest Area; Cactus City Rest Area to Devers Substation, Devers Substation to East Border of Banning, Banning and Beaumont, Calimesa and San Timoteo Canyon	LU 8.1: Provide for permanent preservation of open space lands that contain important natural resources, hazards, watercourses, and scenic and recreational values.	Yes	The Proposed Project would not preclude the preservation of open space lands. SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. These APMs would allow SCE to avoid identified sensitive natural resources when siting the towers. SCE would also implement APMs B-19 and B-21 would minimize disturbance to riparian areas, and would provide for the restoration of any affected areas, and APM B-26, which would avoid wash areas.
	OS 5.6: Identify and, to the maximum extent possible, conserve remaining upland habitat areas adjacent to wetland and riparian areas that are critical to the feeding, hibernation, or nesting of wildlife species associated with these wetland and riparian areas.	Yes	The Proposed Project would not preclude the conservation of upland habitat areas. In addition, SCE would implement APM B-35, which would avoid upland areas where desert tortoises could occur.
	OS 6.1: During the development review process, ensure compliance with the Clean Water Act's Section 404 in terms of wetlands mitigation policies and policies concerning fill material in jurisdictional wetlands.	Yes	SCE would implement APM B-7, which would prohibit project activities in any existing wetland areas. In addition, as part of the Proposed Project Mitigation Measures B-1a (Prepare and Implement a Habitat Restoration/ Compensation Plan) would be implemented in if jurisdictional waters and wetlands are impacted.
	OS 6.2: Preserve buffer zones around wetlands where feasible and biologically appropriate.	Yes	SCE would implement APM B-7, which would prohibit project activities in any existing wetland areas.
Riverside County	Riverside County Comprehensive General Plan, Reche Canyon/Badlands Area Plan (2003)		
Applicable Segments: Calimesa and San Timoteo Canyon	RCBAP 16.1: Conserve habitat that captures the diversity of the Riverside Lowlands bioregion within the Reche Canyon/Badlands area. The Reche Canyon/Badlands region includes substantial areas of remaining natural habitat within the Riverside Lowlands, including portion of the San Jacinto River, the Badlands, Reche Canyon area, and the Mystic Lake/ San Jacinto Wildlife Area.	Yes	The Proposed Project would not preclude the conservation of habitat. SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features.
	RCBAP 16.4: Conserve existing, intact upland habitat blocks between Sycamore Canyon Park area, Box Springs Mountain Reserve, and San Bernardino County to the north, focusing on sage scrub, grassland, and chaparral habitat.	Yes	The Proposed Project would not be located in the vicinity of Sycamore Canyon Park or Box Springs Mountain Reserve; however it does traverse sage scrub, grassland, and chaparral habitat to the north and northeast of these areas. The Proposed Project would not preclude the conservation of these habitats, and it would be located within an existing utility ROW. In addition, two transmission lines would be removed in this area and replaced with only one, so more habitat would be available. SCE would implement Mitigation Measure B-1a (Prepare and Implement a Habitat Restoration/Compensation Plan) in certain disturbed areas.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	RCBAP 16.7: Conserve high quality sage scrub and chamise chaparral in order to protect core population of Bell's sage sparrow in Badlands area.	Yes	The Proposed Project would not preclude the conservation of these habitats, and it would be located within an existing utility ROW. In addition, two transmission lines would be removed in this area and replaced with only one, so more habitat would be available. SCE would implement B-5a (Conduct pre-construction surveys and monitoring for breeding birds), which would require a buffer around any breeding bird in the area, including Bell's sage sparrow. In addition, SCE would implement Mitigation Measure B-1a (Prepare and Implement a Habitat Restoration/Compensation Plan) in certain disturbed areas.
	RCBAP 16.8: Conserve San Jacinto Valley crownscale, vernal barley, Davidson's saltbush, Coulter's goldfields, and spreading navarretia. Conservation should focus on the Traver–Domino-Willows soil series occurring in the San Jacinto River flood plain. Key populations of these three species are known to exist within this section of the San Jacinto River.	Yes	The Proposed Project would be not located in the vicinity of and would not traverse the San Jacinto River; however, San Jacinto Valley crownscale has a moderate potential to occur with the Calimesa and San Timoteo Canyon segment. SCE would implement APMs B-8 and B-12, which would identify and avoid sensitive plants and plant communities through modification of tower sites. In addition, the Proposed Project identifies Mitigation Measure B-8a (Conduct Surveys for Listed Plant Species), which would identify and avoid locations of listed plant species; or, if necessary, transplant certain plant individuals.
	RCBAP 16.9: Conserve vernal pool complexes supporting thread-leaved brodiaea and California Orcutt grass known to exist within the Reche Canyon/Badlands Area Plan.	Yes	The Proposed Project would not preclude the conservation of vernal pool complexes in the Reche Canyon/Badlands area. SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features.
	RCBAP 16.10: Conserve alluvial scrub and alkali vernal plain habitat supporting a key population of smooth tarplant, Wright's trichocoronis, and little mousetail within this section of the San Jacinto River system.	Yes	Smooth tarplant and little mousetail have a moderate potential to occur within the Calimesa and San Timoteo Canyon segment. SCE would implement APMs B-8 and B-12, which would identify and avoid sensitive plants and plant communities through modification of tower sites.
	RCBAP 16.11: Conserve sandy-granitic soils within chaparral and coastal sage scrub habitats capable of supporting Payson's jewel flower and prostrate spineflower known to exist within the Reche Canyon/Badlands area.	Yes	Payson's jewel flower and prostrate spineflower are not known to occur or have a moderate or high potential to occur within the Calimesa and San Timoteo Canyon segment. The Proposed Project would not preclude the conservation of these soils, and it would be located within an existing utility ROW. In addition, two transmission lines would be removed in this area and replaced with only one, so more habitat would be available.
Riverside County	Riverside County Comprehensive General Plan, Pass Area Plan (2003)		
Applicable Segments: Devers Substation to East Border of Banning; Banning and Beaumont	PAP 15.1: Protect viable oak woodlands through adherence to the Oak Tree Management Guidelines and Best Management Practices adopted by Riverside County.	Yes	Some coast live oak individuals exist within the Banning and Beaumont segment. SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	PAP 16.5: Conserve coastal sage scrub patches which support known populations of granite night lizard and granite spiny lizard.	Yes	Coastal sage scrub is not known to exist in the vicinity of the Proposed Project. However, SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features.
	PAP 16.8: Maintain wetlands and wetland connections via Noble Creek to conserve wetland species and wildlife dispersal.	Yes	SCE would implement APM B-7, which would prohibit all project-related activities from occurring in wetland areas.
Riverside County	Riverside County Comprehensive General Plan, Western Coachella Valley Area Plan (2003)		
Applicable Segments: Cactus City Rest Area to Devers Substation; Devers Substation to East Border of Banning	WCVAP 21.2: Require all development activities within Fringe-toed Lizard Habitat areas be compatible with the conservation principles and provisions of the Fringe-toed Lizard Habitat Conservation Plan and the standards of the Multipurpose Open Space Element.	Yes	SCE would implement APM B-34 and BB-36, which would minimize impacts to fringe-toed lizards and its habitat.
Riverside County	Riverside County Comprehensive General Plan, Desert Center Area Plan (2003)		
Applicable Segment: Midpoint Substation to Cactus City Rest Area	DCAP 10.2: Work to limit off-road vehicle use within the Desert Center Area Plan.	Yes	SCE would implement APM B 3 and L 3, which would minimize project associated off-highway vehicle use or the creation of new roads that could be utilized for these uses.
	DCAP 10.3: Require new development to conform with Desert Tortoise Critical Habitat designation requirements.	Yes	SCE would implement APMs B-18, 28, 29, 30, 31, 32, and 35, which would minimize impacts to desert tortoise.
Riverside County	Riverside County Comprehensive General Plan, Palo Verde Area Plan (2003)		
Applicable Segment: Palo Verde Valley	PVVAP 11.1: Protect the Colorado River watershed and habitat, and provide recreational opportunities and flood protection through adherence to the Open Space, Habitat, and Natural Resource Preservation section of the General Plan Land Use Element and the Water Resources and Watershed Management sections of the Multipurpose Open Space Element, as well as through use of Best Management Practices.	Yes	SCE would implement APMs B-7, B-19, and B-21 would prohibit any project activity from wetland areas, minimize disturbance to riparian areas, and would provide for the restoration of any affected areas.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	PVVAP 12.1: Protect biological resources in the Palo Verde Valley planning area through adherence to the Sensitive Environmental Land and Watershed Management sections of the General Plan Multipurpose Open Space Element.	Yes	SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. These APMs would allow SCE to avoid identified sensitive features when siting the towers. In addition, the Proposed Project would implement Mitigation Measure B-8 (Conduct Surveys for Listed Plant Species), and B-1a (Prepare and Implement a Habitat Restoration/Compensation Plan), which would minimize the disturbance to habitats supporting special status species. Also refer to polices discussed above under Riverside County Comprehensive General Plan.
San Bernardino County *Applicable Segments: Calimesa and San Timoteo Canyon, San Bernardino Junction to Vista Substation, San Bernardino Junction to San Bernardino Substation*	San Bernardino County General Plan (2002)		
	BI-1: Because all rare, endangered, threatened, and candidate species' habitats require management for preservation, the following shall be implemented: a) Biotic Resources Overlay should be applied to areas identified as habitat for special status species b) All land use map changes and proposals for areas within the Biotic Resources Overlay or Open Space on the Resources Overlay shall be accompanied by a report identifying biotic resources that could be affected and mitigation measures. c) The conditions of approval of any land use application shall incorporate identified mitigation measures. d) All land use map changes and proposals shall include, where feasible, mitigation measures that would reduce impacts to and enhance populations and habitats.	Yes	This policy is the responsibility of San Bernardino County; however, the Proposed Project fulfills these items through this EIR/EIS, which identifies and evaluates biotic resources in the ROWs of these segments and adjacent areas. In addition, this EIR/EIS identifies mitigation measures to eliminate or reduce impacts to these identified resources.
	BI-2: Because listed and candidate species and their habitats exist throughout the County and may occur in areas not included in the Biotic Resource Overlay, all of the provisions of policy BI-1 may be applied elsewhere in the County.	Yes	This policy is the responsibility of San Bernardino County; however, the Proposed Project fulfills these items through this EIR/EIS, which identifies and evaluates biotic resources in the ROWs of these segments and adjacent areas. In addition, this EIR/EIS identifies mitigation measures to eliminate or reduce impacts to these identified resources.
	BI-3: Because species occurrences may be adversely affected by land use approvals, provisions of Policy BI-1 may be applied in areas supporting these species if it can be shown that the species is "threatened" as that term is used in the Federal Endangered Species Act.	Yes	This policy is the responsibility of San Bernardino County; however, the Proposed Project fulfills these items through this EIR/EIS, which identifies and evaluates biotic resources in the ROWs of these segments and adjacent areas. In addition, this EIR/EIS identifies mitigation measures to eliminate or reduce impacts to these identified resources.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	BI-4: Because the quality of life is related to the variety and abundance of all species, commonly occurring species shall be conserved. The following policies shall be incorporated into the conditions of approval for all proposed discretionary land use proposals: a) Regulate land clearing b) Minimize grading and cut and fill c) Limit OHV operation d) Restrict encroachment of incompatible land uses e) Encourage infilling of vacant land f) Implement abatement program for tree mortality	Yes	This policy is the responsibility of San Bernardino County, and the Proposed Project would be located within an existing utility ROW. Therefore these items would have been implemented when the original ROW was established. However the Proposed Project would address some of these items through the implementation of: • APMs B-11, which would require the use of hand tools to clear vegetation in certain areas • APM B-3 and L-3, which would minimize project associated off-highway vehicle use and the creation of new roads that could be utilized for these uses
	OR-16: Because unwanted entry by pedestrians, equestrians, bicycles, or motorized vehicles can harm the desirable attributes of some open space areas, the following policies shall apply: a) Control access to open space lands b) Limit roads into or across open space lands	Yes	SCE would implement APM B 3 and L 3, which would minimize project associated off-highway vehicle use or the creation of new roads that could be utilized for these uses.
	OR-19: Because preservation of large habitat areas can be more successful as a natural resource preservation strategy than preservation of smaller, scattered areas within individual developments, the County supports the concept of "habitat banking," and shall make this type of system available to developers.	Yes	While there is no habitat banking proposed as part of the Proposed Project, this EIR/EIS identifies Mitigation Measure B-7c (Purchase mitigation lands for impacts to tortoise habitat) and B-7d (Purchase mitigation lands for impacts to fringe-toed lizard habitat) for potential impacts to desert tortoise. The Proposed Project would be consistent with this policy.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	OR-22: Because preservation of natural resources can in many cases be achieved by providing sufficient distance between natural and developed areas, the County shall ensure that roads and buildings have an appropriate setback from riparian corridors, except where this requirement would endanger public safety. These setbacks shall be based on an engineering inundation analysis and on the wildlife and plant communities within the corridor, and shall consist of at least the following: a) Provide setback of 50 feet from intermittent flows designated as "blue lines" on USGS maps. b) Provide setback of 100 feet from perennial creeks/streams designated as "blue lines" on USGS maps. c) Provide a corridor extending to the ridgelines defining the watercourse that is sufficient to maintain wildlife use.	Yes	The Proposed Project would be within an existing utility ROW; therefore these items would have been implemented when the original ROW was established. In addition, the Proposed Project would not consist of the construction of any roads or buildings within this segment.
	OR-24: Because preservation of rare, threatened, or endangered species depends on the preservation of habitat which supports populations of these species, the County shall implement the following policies: a) Protect and conserve rare or endangered flora and fauna b) Allow no net loss of existing wetland areas. c) Require all County agencies to demonstrate that their projects meet the overall Biotic Resource and Open Space policies of the County. d) Seek to provide protection/management to maintain habitat values in unprotected areas. e) Review land use designations to ensure that planned land uses provide adequate protection for natural areas.	Yes	Some of this policy is the responsibility of San Bernardino County. However, SCE would implement APM B-7, which would prohibit all project-related activities from occurring in wetland areas, and APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, SCE would implement Mitigation Measure B-1a as part of the Proposed Project, which would require restoration of any disturbed areas.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	OR-29: Because the preservation of natural resources can be achieved or assisted through the establishment of proper management practices, the County shall encourage the use of good conservation practices in the management of grading, replacement of ground cover, protection of soils, natural drainage, and the protection and replacement of indigenous trees.	Yes	Some of this policy is the responsibility of San Bernardino County. However, SCE would implement APM B-7, which would prohibit all project-related activities from occurring in wetland areas, and APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, SCE would implement Mitigation Measure B-1a as part of the Proposed Project, which would require restoration of any disturbed areas.
	OR-62 – Because retaining drainage courses in their natural condition retains habitat, allows some recharge of groundwater basins and can result in savings related to the constructing of engineered drainage facilities, the County shall apply the following policies: a) Retain all natural drainage courses. b) Prohibit the conversion of natural watercourses. c) Encourage the use of natural drainage courses as boundaries between neighborhoods. d) Allow no development in the FW District and/or Flood Plain Overlay District(s) which would alter the alignment or direction or course of any blue-line stream. e) Maintain the capacity of the existing natural drainage channels where feasible. f) Encourage the use of open space and drainage easements as stream preservation tools. g) Require naturalistic drainage improvement where modifications are necessary. h) Encourage natural channel designs. i) Do not place streams in underground structures. j) Prohibit occupation or obstruction of natural drainage courses.	Yes	Some of this policy is the responsibility of San Bernardino County. However, SCE would implement APM B-7, which would prohibit all project-related activities from occurring in wetland areas, and B-26, which would require the spanning of wash communities. SCE would also implement the following water resources APMs, APMs W-2, W-8, W-13, and W-16, which would require various construction measures that would prevent erosion and potential flood hazards.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
City of Blythe	City of Blythe Comprehensive General Plan (1989)		
Applicable Segment: Palo Verde Valley	2: To preserve the aesthetic, recreational and biological resource value of the Colorado River and desert resources areas, recognizing these areas as vital long-term open space resources for the City.	Yes	The Proposed Project would not preclude the preservation of the biological resource value of the Colorado River and desert resource areas. SCE would implement APM B-15, B-19, and B-B-21, which would minimize disturbances in the vicinity of the Colorado River and in riparian areas, and allow for the restoration of certain disturbed areas.
	5: Promote the wise and conscientious use of river back-water. Sloughs and other riparian habitat areas which will enhance the water fowl habitat and sport hunting potential.	Yes	SCE would implement APMs B-19 and B-21, which would minimize disturbance to riparian areas through avoidance of riparian areas, and the restoration of any affected areas. In addition, Mitigation Measure B-1a (Prepare and Implement a Habitat Restoration/Compensation Plan) would be implemented in this area as part of the Proposed Project.
City of Calimesa	City of Calimesa General Plan (1994)		
Applicable Segments: Banning and Beaumont	1.1: Preserve the natural character and visual quality of the hillsides through sensitive site design and grading.	Yes	SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, SCE would implement Mitigation Measure B-1a as part of the Proposed Project, which would require restoration of any disturbed areas.
	Goal 3: Conserve and protect significant standards of mature trees, native vegetation, and wildlife habitat within the planning area.	Yes	The Proposed Project would not preclude the conservation and protection of mature trees, native vegetation, and wildlife habitat. SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, SCE would implement Mitigation Measure B-1a as part of the Proposed Project, which would require restoration of any disturbed areas.
	3.1: Conserve and protect important plant communities and wildlife habitats, such as riparian areas, wetlands, oak woodlands and other significant tree stands, and rare or endangered plant/animal species by using buffers, creative site planning, revegetation and open space easements/dedications.	Yes	SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, SCE would implement Mitigation Measure B-1a as part of the Proposed Project, which would require restoration of any disturbed areas.
	3.2: Encourage the planting of native species of trees and other drought-tolerant vegetation.	Yes	The Proposed Project would not plant vegetation, except during the restoration of disturbed areas. As part of the Proposed Project, SCE would implement Mitigation Measure B-1a, which would require restoration of disturbed areas, and would utilize a CPUC/BLM approved seed mix that most likely would consist of native plant species.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	3.3: In areas that may contain important plant and animal communities, require developments to prepare biological assessments identifying species types and locations and develop measures to preserve sensitive species to the maximum extent possible.	Yes	This EIR/EIS identifies and evaluates potential impacts to species and locations along the Proposed Project route. In addition, this document identifies Applicant Proposed Measures (APMs) that would reduce the direct/ indirect impacts that would result from project activities, and Mitigation Measures that mitigates impacts caused by the construction and/o operation of the Proposed Project.
	3.4: Allow new development to remove only the minimum natural vegetation and require the revegetation of graded areas with native plant species.	Yes	SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, SCE would implement Mitigation Measure B-1a as part of the Proposed Project, which would require restoration of disturbed areas, and would utilize a CPUC/BLM approved seed mix that most likely would consist of native plant species.
City of Cathedral City *Applicable Segment: Cactus City Rest Area to Devers Substation*	City of Cathedral City Comprehensive General Plan (2002)		
	Policy 2: As part of the development review process, projects shall be evaluated for the project's impacts on existing habitat and wildlife, and for the land's value as viable open space.	Yes	This EIR/EIS evaluates the Proposed Project's potential impacts on existing habitat and wildlife, as well as open space.
	Policy 4: Assure that sensitive habitat and wildlife areas, as well as State and federal lands, are appropriately buffered from the built environment.	Yes	SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. These APMs would require that sensitive habitats and wildlife areas are avoid during project construction and tower siting.
City of Coachella *Applicable Segment: Cactus City Rest Area to Devers Substation*	City of Coachella General Plan (2002)		
	Goal: The City shall require preservation of the habitat areas of rare, threatened and endangered wildlife and plant resources within open space areas.	Yes	The Proposed Project would not preclude the preservation of habitats of rare, threatened, and endangered wildlife and plant resources. In addition, SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. These APMs would allow SCE to avoid identified sensitive features when siting the towers. In addition, the Proposed Project would implement Mitigation Measure B-8a (Conduct Surveys for Listed Plant Species), and B-1a (Prepare and Implement a Habitat Restoration/ Compensation Plan), which would minimize the disturbance to habitats supporting special status species.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
City of Loma Linda	City of Loma Linda Draft General Plan (2004)		
Applicable Segments: San Bernardino Junction to Vista Substation, San Bernardino Junction to San Bernardino Substation	9.2.10.1a: Preserve outstanding natural features, such as the skyline of a prominent hill, rock outcroppings, and native and/or historically significant trees.	Yes	The Proposed Project would not preclude the preservation of native and/or historically significant trees. As part of the Proposed Project, the final determination for new roads would avoid large trees and other natural features. In addition, SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. The Proposed Project would implement Mitigation Measure B-8a (Conduct Surveys for Listed Plant Species) within these segments.
	9.2.10.2a: Base open space preservation and acquisition based on the evaluation of significant viewsheds and ridgelines, wildlife habitats and fragile ecosystems, significant scientifically, historically, or ecologically unique natural areas, passive recreational areas, and stream or creek environs.	Yes	The purpose of the Proposed Project is not to preserve open space. However, this EIR/EIS evaluates wildlife habitats and fragile ecosystems, natural areas, and stream and creek environs. In addition, SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plant/plant communities and other features. Through the evaluation of these biological resources and the implementation of the APMs, SCE would site towers based upon the information presented within this EIR/EIS.
	Guiding Policy 9.4.4: Preserve habitats supporting rare and endangered species of plants and animals including wildlife corridors.	Yes	The Proposed Project would not preclude the preservation of habitats supporting rare and endangered species of plants and animals. In addition, SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. These APMs would allow SCE to avoid identified sensitive features when siting the towers. In addition, the Proposed Project would implement Mitigation Measure B-8a (Conduct Surveys for Listed Plant Species), and B-1a (Prepare and Implement a Habitat Restoration/Compensation Plan), which would minimize the disturbance to habitats supporting special status species.
	9.4.4b: Require appropriate setbacks adjacent to natural streams to provide adequate buffer areas ensuring the protection of biological resources.	Yes	SCE would implement APMs B-19 and B-21, which would minimize disturbance to riparian areas through avoidance of riparian areas, and the restoration of any affected areas. In addition, Mitigation Measure B-1a (Prepare and Implement a Habitat Restoration/Compensation Plan) would be implemented in this area as part of the Proposed Project.

Table D.2-12. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	9.4.4d: Through the project approval and design review process, require new development projects to protect sensitive habitat areas including, but not limited to, coastal sage scrub, and native grasslands. Ensure the preservation in place of habitat areas found to be occupied by State and federally protected species. Where preserved habitat areas occupy areas that would otherwise be granted as part of a development project, facilitate the transfer of allowable density to other, non-sensitive portions of the site.	Yes	The Proposed Project would not preclude the protection of sensitive habitat areas. In addition, SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. These APMs would allow SCE to avoid identified sensitive features when siting the towers. In addition, the Proposed Project would implement Mitigation Measure B-8a (Conduct Surveys for Listed Plant Species), and B-1a (Prepare and Implement a Habitat Restoration/ Compensation Plan), which would minimize the disturbance to habitats supporting special status species.
City of Redlands	City of Redlands General Plan (1995)		
Applicable Segment: Calimesa and San Timoteo Canyon	4.41g: Preserve natural vegetation and wildlife areas to create wildlife corridors extending throughout the Live Oak Canyon and San Timoteo Canyon areas.	Yes	The Proposed Project would not preclude the preservation of vegetation and wildlife areas for its use as wildlife corridors. SCE's implementation of APMs B-19 and B-21 would minimize disturbance to riparian areas, and would provide for the restoration of any affected areas. In addition, Mitigation Measure B-1a (Prepare and Implement a Habitat Restoration/Compensation Plan) would be implemented in this area as part of the Proposed Project.

Kofa NWR. Construction activities may adversely affect biological resources within the Kofa NWR, which would conflict with the Refuge's management policies and plans. Impacts in crossing of the Kofa NWR would be minimized through utilization of existing utility access (gas and transmission) roads during the construction and operational phases of the project (APM L-1). All vehicular traffic would be limited to approved access or spur roads. This APM would minimize disturbances to habitat, but direct impacts to species would still occur. Wildlife utilizing the habitats adjacent to the Proposed Project during construction activities would be disturbed by the associated noises and may relocate away from the activities. Impacts would be temporary and limited to the duration of the activities, thus species would be able to utilize the adjacent habitats following the activities. Impacts to some species would be more adverse than others, but overall impacts related to conflict with biological resources policies within the Kofa NWR would be considered less than significant (Class III). The Proposed Project would not conflict with management policies of the Kofa NWR.

Mecca Hills. The Mecca Hills, which have been identified as a Riverside County Natural Area, are located south of the I-10 freeway and south of Cactus City Rest Area. Riverside County considers this area unique for its geologic features and bighorn sheep are known to occur in this area. The Proposed Project does not encroach into the Mecca Hills and therefore, construction of the Proposed Project is not expected to impact this County designated Natural Area.

California Desert Conservation Area Plan (CDCA). In this segment, only the portion of the ROW between Devers Substation and Whitewater Canyon is included in the CDCA Plan. The management areas within this segment that were identified in the CDCA Plan are the HMP for CVFTL and the Whitewater Canyon ACEC. Construction of this segment of the Proposed Project will not affect the CVFTL HMP area because this area is located south of the I-10 freeway. Because the construction of the Proposed Project

will span the Whitewater River, the Proposed Project is not expected to impact the management policies for the Whitewater ACEC.

Chocolate Mountains/Mule Mountains HMA. This Herd Management Area is located south-southwest and west of Blythe in the Mule Mountains and Little Chuckwalla Mountains west of the western edge of this segment. Construction of this segment of the Proposed Project is not expected to impact this HMA because the ROW runs north of the boundary of this area.

Chuckwalla Valley Dune Thicket ACEC. This segment of the Proposed Project bisects this ACEC between MPs E124.9 and E126.2. The Proposed Project does fall within the existing utility ROW that bisects the ACEC. Five future tower locations will be located within the ACEC. This ACEC is managed for preservation of the dune thicket vegetation and preservation of the Mojave fringe-toed lizard that is known to occur in the ACEC. APM s B-8, B-12, B-13, B-33, B-36 address pre-construction surveys in sand dune habitats and avoidance of sensitive habitat areas, including dune habitat and blow sands, and siting of towers and roads so as to avoid impacts to dune habitats. Even with the implementation of these APMs, construction of the Proposed Project will impact areas within the Chuckwalla Valley Dune Thicket ACEC. The impacts resulting from construction of the Proposed Project will result in significant impacts to sensitive habitat in this ACEC and will conflict with the management policies in the CDCA Plan (Class II). Implementation of Mitigation Measure B-7d (Purchase mitigation lands for impacts to fringe-toed lizard habitat) and B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) will reduce the level of the impacts to the Coachella Valley Dune Thicket ACEC.

Eagle Mountains HMP. The Eagle Mountains are located north of the I-10 and west of Desert Center. The HMP to address the needs of burro deer and bighorn sheep has not yet been developed for this area. This segment of the Proposed Project does not bisect the Eagle Mountains. Therefore, there will be no impacts to the Eagle Mountains or the management of species and habitats in the Eagle Mountains.

McCoy Wash. McCoy Wash, which was identified as an HMP in the CDCA Plan, is located north of the I-10 and north of Blythe. This Proposed Project does not cross this HMP area and, therefore, there will be no impacts to McCoy Wash.

Orocopia Mountains and Chuckwalla Mountains Native Ungulate HMPs. These HMPs cover portions of the Chuckwalla and Orocopia Mountains between the Little Chuckwalla Mountains and the Cactus City Rest Area. The majority of these areas were incorporated into the Chuckwalla DWMA as part of the NECO Plan. Because these areas were incorporated into the Chuckwalla DWMA, the impacts of the Proposed Project are discussed under the NECO Plan.

Northern and Eastern Colorado Deserts Coordinated Management Plan (NECO). This segment of the Proposed Project is located within the areas covered by the NECO plan.

Chuckwalla DWMA ACEC. This ACEC generally encompasses the Chuckwalla Mountains and portions of the Chuckwalla Valley and Orocopia Mountains and this DWMA/ACEC is managed for the desert tortoise and bighorn sheep. This segment of the Proposed Project traverses through a portion of this ACEC from near Wiley's Well Road and the Chuckwalla Valley Dune Thicket to near the Cactus City Rest Area. The Proposed Project does fall within the existing utility ROW that bisects the ACEC. Construction of this segment of the Proposed Project will result in permanent loss of habitat for the desert tortoise at the 97 tower locations and where the permanent access/spur roads will be constructed. Temporary impacts to desert tortoise habitat and foraging areas for bighorn sheep will occur at laydown/staging areas and where temporary access/spur roads will be constructed. This permanent and temporary loss of desert tortoise habitat in this ACEC will result in significant impacts in this ACEC and will conflict with the management policies in the NECO Plan (Class II). Implementation of Mitigation Measure B-7b (Con-

duct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat), and B-9f (Perform construction outside of breeding and lambing period) will reduce the level of the direct impacts to the Chuckwalla DWMA ACEC.

Draft Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). The Proposed Project falls within the planning area for the CVMSHCP from just west of Desert Center to the Cactus City Rest Area (MPs E155.8 to E188.2). The Proposed Project traverses through the proposed Desert Tortoise and Linkage Conservation Area. This area is proposed to be managed for desert tortoise, Mecca aster, Orocopia sage, Le Conte's thrasher, Coachella Valley round-tailed squirrel, and Palm Springs pocket mouse. Construction of the Proposed Project through this proposed Conservation Area may result in temporary and permanent impacts to habitat for these species and may result in the loss of individuals of these species. Even with the implementation of APMs B-1, B-3, B-4, B-8, B-12, B-16, B-19, B-23, and B-25 through B-33, the impact of construction of the Proposed Project through this proposed Conservation Area would conflict with the management strategies under the proposed CVMSHCP (Class II). Implementation of Mitigation Measure B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce conflicts to less than significant levels.

Western Riverside County Multiple Species Habitat Conservation Plan – The Pass Area Plan. Construction of this segment of the Proposed Project would occur within the Pass Area Plan. Construction would not occur in any criteria cells and therefore, it would not conflict with the conservation goals for this Plan Area. However, the construction in and adjacent to the San Gorgonio River and the major tributary to the east would impact the San Gorgonio River–San Bernardino–San Jacinto Mountains Linkage, which is a special linkage area in the Western Riverside MSHCP. In addition, the construction impacts within the San Gorgonio River and the large tributary would require SCE to comply with the provisions in the MSHCP regarding impacts to wildlife corridors and linkages and to riparian/riverine species. The construction of this segment of the Proposed Project in the San Gorgonio River/San Bernardino-San Jacinto Mountains Linkage would conflict with the provisions of the Western Riverside MSHCP and this would be a potentially significant impact (Class II). Implementation of Mitigation Measures B-13a (Demonstrate compliance with the Western Riverside County MSHCP) and B-13b (Implement the Best Management Practices required by the Western Riverside County MSHCP) would result in compliance with the provisions of the Western Riverside County MSHCP.

Mitigation Measures for Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources

B-7b **Conduct pre-construction tortoise surveys.**

B-7c **Purchase mitigation lands for impacts to tortoise habitat.**

B-9f **Perform construction outside of breeding and lambing period.**

B-7d **Purchase mitigation lands for impacts to fringe-toed lizard habitat.**

B-9i **Schedule construction when the Coachella Valley round-tailed squirrel is dormant.**

B-13a **Demonstrate compliance with the Western Riverside County MSHCP.** SCE shall provide documentation that it has complied with the provisions of the MSHCP.

B-13b **Implement the Best Management Practices required by the Western Riverside County MSHCP.** SCE shall provide documentation that is has implemented the Best Management Practices set forth in Appendix C of the Western Riverside MSCHP.

D.2.6.2 Impacts of Transmission Line Operation

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Peregrine falcons, golden eagles, and other large aerial perching birds are most susceptible to electrocution because of their size, distribution, and behavior (Olendorff et al., 1981; APLIC, 1996). Because raptors and other large aerial perching birds often perch on tall structures that offer optimal views of potential prey, the design characteristics of transmission poles appear to be a major factor in raptor electrocutions (APLIC, 1996). Electrocution occurs only when a bird simultaneously contacts two energized phase conductors or an energized conductor and grounded hardware. This happens most frequently when a bird attempts to perch on a transmission pole with insufficient clearance between these elements. Raptor species that utilize the towers for nesting could be electrocuted while landing. Nests may be built in areas that are susceptible to electrical charges which may result in fire as well as an electrical outage. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV; as such, "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in collisions by listed bird species (Class II)

Bird collisions with power lines generally occur when: (1) a power line or other aerial structure transects a daily flight path used by a concentration of birds, and (2) migrants are traveling at reduced altitudes and encounter tall structures in their path (Brown, 1993). Collision rates generally increase in low light conditions, during inclement weather, such as rain or snow, during strong winds, and during panic flushes when birds are startled by a disturbance or are fleeing from danger. Collisions are more probable near wetlands, valleys that are bisected by power lines, and within narrow passes where power lines run perpendicular to flight paths. Passerines (i.e., songbirds) and waterfowl (i.e., mallard ducks) are known to collide with wires (APLIC, 1994), particularly during nocturnal migrations or poor weather conditions (Avery et al., 1978). However, passerines and waterfowl have a lower potential for collisions than larger birds, such as raptors. Some behavioral factors contribute to a lower collision mortality rate for these birds. Passerines and waterfowl tend to fly under power lines, as opposed to larger species, which generally fly over the lines and risk colliding with the higher static lines, and many smaller birds tend to reduce their flight activity during poor weather conditions (Avery et al., 1978). It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the project vicinity. These data are not available for the proposed transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest such as along waterways or over adjacent agricultural areas like those in the Harquahala Valley. The operation of the Proposed Project may result in mortality of listed or sensitive bird species and this would be considered a potentially significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a **Utilize collision-reducing techniques in installation of transmission lines.** SCE shall install the transmission line utilizing APLIC standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994 (APLIC, 1996)."

- Placement of towers and lines will not be located significantly above existing transmission line towers and lines, topographic features, or tree lines to the maximum extent practicable.

- Overhead lines that occur significantly above the above-mentioned features and that are located in highly utilized avian flight paths will be marked utilizing aerial marker spheres, swinging plates, spiral vibration dampers, bird flight diverters, avifauna spirals, or other diversion device as to be visible to birds and reduce avian collisions with lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon juvenile tortoises as well as other wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the Proposed Project will result in an increase in potential nesting sites for common ravens. An increase in the number of ravens nesting in tortoise habitat will likely result in an increase in predation on juvenile tortoises and potentially on other wildlife species (including sensitive and/or listed species). APM B-20 states that "all transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS Division of Law Enforcement to take common ravens or their nests." This APM partially reduces the impacts of common ravens on listed and sensitive wildlife species. However, the impacts may still remain significant if SCE does not check the towers and remove nests on a regular basis and if SCE removes other nests that are actively utilized by other raptors. An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a potentially significant impact (Class II). Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a **Prepare and implement a raven control plan.** SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a different raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Law Enforcement Division, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's Law Enforcement Division. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the Proposed Project will require regular maintenance of the various facilities associated with the project. Maintenance activities require the use of access and spur roads by vehicles and equipment. The operations and maintenance activities will be conducted at about the same frequency as currently exists for the DPV1 transmission line. SCE has indicated that vehicle speeds would be limited to a maximum of 25 mph in desert tortoise habitat (APM B-29). The implementation of this APM, and the approximate same level of use of the roads as currently exists for operation and maintenance activities, will result in a similar impact to what currently exists. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse but less than significant (Class III).

D.2.7 Alternatives for Devers-Harquahala

D.2.7.1 SCE Harquahala-West Alternative

Environmental Setting

The SCE Harquahala-West Alternative would travel through the same types of habitat as the Harquahala to Kofa NWR segment of the Proposed Project. This alternative would consist of undisturbed desert upland and xeroriparian vegetation typical of the Creosote–White Bursage series from MP 3 to MP 12 with some fallow and alfalfa agricultural fields from MP 0 to MP 3. From MP 12 to MP 21, the alternative would follow a previously disturbed pipeline corridor and unpaved access road. Typical plant species in the undisturbed portion include creosote bush, white bursage, ratany, plantain, and various cacti. The existing access road is primarily unvegetated but contains some invasive plants, such as Mediterranean grass and Russian thistle, along the edges and less recently disturbed areas.

Several special status plant and wildlife species have potential to occur along the SCE Harquahala-West Alternative alignment. These species are the same as those identified in Section D.2.2.1, Harquahala to Kofa NWR, and include several species of bats, reptiles, an invertebrate, and cacti and woody plants protected by the Arizona Native Plant Law. Additionally, migratory birds, burros, and bighorn sheep have potential to occur along this alternative.

Impacts and Mitigation Measures

Construction and operation of the SCE Harquahala-West Alternative would create similar direct and indirect impacts as those described in Section D.2.6 for the Proposed Project, Harquahala to Kofa NWR segment. Although the SCE Harquahala-West Alternative would result in a shorter transmission line (total distance of 216 miles instead of 230 miles) and fewer transmission towers (48 fewer 500 kV towers), a new access road would be required, resulting in about 5.28 acres of additional ground disturbance. Overall, the impact potential and intensity for impacts resulting from construction and operation of the alternative would be similar to the Proposed Project, as discussed below.

Construction Impacts

Vegetation

Although the SCE Harquahala-West Alternative transmission line would be shorter, a new access road would be required, resulting in about 5.28 acres of more ground disturbance and a loss of native desert scrub habitat. As discussed in Section D.2.6.1.1, construction impacts to vegetation may occur in a variety of ways, including the direct removal of plants during the course of construction. Depending on the site specific topography, these impacts may extend beyond the ROW unless precautions are taken. The removal of common native vegetation types, such as desert scrub, coastal sage, or chaparral, creates possibilities for erosion or weed invasion that can affect adjacent and downslope habitats. As such, it is the indirect, off-ROW impacts associated with the removal of native vegetation that may be significant. Removal or incidental loss of sensitive species or individual native specimen trees would also be considered a significant impact. The following discussion addresses construction impacts to native vegetation types resulting from the SCE Harquahala-West Alternative.

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

The SCE Harquahala-West Alternative would result in both temporary and permanent impacts to Sonoran desert scrub habitat in this segment of the ROW. Ground-disturbing activity, including tower pad preparation and construction, grading of new access roads, transportation, maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads has the potential to disturb vegetation. These activities would result in the permanent removal of Sonoran desert scrub at tower sites located along the alternative. The permanent loss or temporary disturbance of Sonoran desert scrub habitat would be considered a significant (Class II) impact without mitigation. Potential impacts to native vegetation would be reduced to a less than significant level through implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan).

Mitigation Measure for Impact B-1: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species (Class II)

The introduction of invasive non-native and noxious plant species would be the same as described for the Proposed Project. The SCE Harquahala-West Alternative would temporarily remove Sonoran desert scrub vegetation at the construction sites located adjacent to each tower. Introduction of non-native plant species would occur primarily during construction, but would also continue to occur during operation and maintenance phases of the alternative. The introduction of non-native or noxious weeds would be related to the use of vehicles, construction equipment, or earth materials contaminated with non-native plant seed, use of straw bales or wattles that contain seeds of non-native plant species, and enhanced public access to the alternative ROW corridor during and after construction.

To reduce the potential for the introduction of invasive and noxious weeds, SCE would implement APM B-2 (Standard Noxious Weed BMPs) and B-11, which would require hand clearing of vegetation in certain areas located along the ROW. This APM would facilitate the maintenance of existing root systems, which may help to stabilize the soils against erosion and assist in the restoration of these areas if the plants resprout at the conclusion of construction activities. SCE would also implement APM B-19, which would require the restoration of disturbed areas at the conclusion of construction. However, SCE has not indicated which areas would be subject to hand clearing or restoration at this time. The introduction of non-native plant species would be considered a significant impact (Class II). Implementation of the Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-2a (Conduct invasive and noxious weed inventory), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-2a Conduct invasive and noxious weed inventory.

B-2b Implement control measures for invasive and noxious weeds.

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. This impact would be the same as described for the Proposed Project. As the construction activities will be temporary, the increased dust settling on plants is not expected to be a significant or adverse impact (Class III).

Wildlife

Direct impacts on wildlife anticipated as a result of the SCE Harquahala-West Alternative include the removal of vegetation, which would result in the temporary loss of wildlife habitat along with the displacement and/or potential mortality of resident wildlife species that are poor dispersers such as snakes, lizards, and small mammals. Construction may also result in the temporary degradation of the value of adjacent native habitat areas due to disturbance, noise, increased human presence, and increased vehicle traffic during construction. Depending on the timing and location of construction activities, the alternative may also result in temporary disruption along terrestrial and riparian wildlife movement corridors crossed by the alternative route.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

Direct loss of small mammals, reptiles, and other less mobile species could occur during construction of the SCE Harquahala-West Alternative. This action would result primarily from the use of construction vehicles and the grading of laydown areas for tower erection and would be the similar to the Proposed Project.

Under this alternative a large part of the proposed route would be constructed along the existing utility ROW and within or immediately adjacent to existing maintained road easements. Most of the wildlife expected to be impacted by construction in these disturbed easements ARE common, wide-ranging species. Due to the narrow area of disturbance along this alternative and the short duration of disturbance, most of the more common wildlife species found along the route are expected to quickly recolonize the corridor after construction and subsequent revegetation work is completed. Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on wildlife from construction would generate potentially adverse but less than significant impacts (Class III). Impacts from construction on listed and candidate wildlife species are discussed separately under Threatened or Endangered Wildlife.

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

As described above, ground-disturbing activity including tower pad preparation and construction and grading of new access roads has the potential to disturb vegetation utilized by nesting birds. The SCE Harquahala-West Alternative encompasses variable habitats for nesting and migratory birds, which may provide potential nesting opportunities along the alternative route. These areas include native and non-native trees and shrubs and natural rock features such as cliffs and large rock outcrops associated with Saddle Mountain, Palo Verde Hills, and Eagle Mountains.

Impacts to burrowing owls or other nesting birds during breeding season would be largely the same as the Proposed Project and would be considered a significant impact without mitigation. APMs B-8 and

B-16 would require additional detailed surveys within a 100-foot buffer around the area of disturbance and avoidance of sensitive sites. These APMs, by themselves, would not sufficiently ensure that impacts to migratory birds would be less than significant. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would ensure that violation of the Migratory Bird Treaty Act does not occur and would reduce impacts to nesting birds to a less than significant level (Class II).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

Threatened or Endangered Plant or Wildlife Species

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class II)

The SCE Harquahala-West Alternative would result in removal of Sonoran desert scrub habitat in this segment of the ROW. Any ground-disturbing activity, including tower pad preparation and construction, grading of new access roads, transportation, maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads has the potential to disturb vegetation. Similar to the Proposed Project these activities would result in potential impacts to two federally listed species Arizona agave, and Arizona cliff rose. The alternative may also remove other plant species protected by the Arizona Native Plant Law, including blue palo verde, foothill palo verde, velvet mesquite, desert ironwood, ocotillo, and various cacti (saguaro, chollas, barrel, hedgehog, beavertail, prickly pear, desert Christmas, and nipple) that occur within the alternative route. These species are protected from being salvaged, harvested, or otherwise removed from the environment.

SCE would implement APMs that would require construction vehicles to travel on established roads, to the maximum extent practicable (APM B-3), and that spur roads, access roads, and other disturbed sites created during construction are recontoured and restored following construction activities (APM B-19). Additionally, APMs would ensure that pre-construction surveys for sensitive or protected plants are conducted (APM B-8) and concentrations of sensitive plants and salvage-restricted plants are avoided or individuals transplanted (APMs B-9; B-12; B-13). APM B-9 requires that *Ferocactus* and *Coryphantha* species be transplanted, and other native plants may be transplanted (APM B-12) or sold to SCE. Because there is still potential for significant impacts to occur to native plants protected under the Arizona Native Plant Law, construction-related impacts would be potentially significant (Class II), but with the implementation of Mitigation Measure B-6a (Develop a transplanting plan) these impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-6: Construction activities would result in indirect or direct loss of listed plants

B-6a Develop a transplanting plan.

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

While there is only one listed terrestrial wildlife species known or expected to occur in the general vicinity of the SCE Harquahala-West Alternative, other species could potentially occur in the area. Impacts to these species could be caused by temporary incremental loss of habitat and accidental death of individuals during land clearing, excavation, and grading phases of the SCE Harquahala-West Alternative. In addition, individuals near the construction area may temporarily abandon their territories due to disturbance from noise and increased human activity. The following discussion highlights construction impacts that would occur to specific threatened or endangered wildlife species.

Invertebrates. There is no indication that any rare or listed invertebrates occur along SCE Harquahala-West Alternative. Surveys conducted of the alternative area did not detect the presence of listed invertebrates, and impacts would be considered less than significant (Class III). Although no listed invertebrate species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Fishes. As described above, there is no indication that any rare or listed fish species occur in or along the SCE Harquahala-West Alternative. Surveys conducted of the alternative area did not detect the presence of listed fish species, and impacts would be considered less than significant (Class III).

Amphibians. There is no indication that any rare or listed amphibians occur along the SCE Harquahala-West Alternative. Surveys conducted of the alternative area did not detect the presence of listed amphibian species, and impacts would be considered less than significant (Class III). Although no listed amphibians were identified, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Reptiles – Desert Tortoise. The SCE Harquahala-West Alternative contains Sonoran desert scrub habitat that has the potential to support desert tortoise, a federal and State listed threatened species. Although this species has not been found during surveys of the alternative and the area has not been designated as critical habitat for this species, the habitat is still considered suitable for desert tortoise. If present, this species would be subject to disturbance and possible mortality from construction vehicles on roads, at staging/laydown areas, and at tower construction sites. Desert tortoises are known to occasionally travel long distances of up to several miles or more.

Construction activities that affect the Sonoran Desert tortoise would be similar to the Proposed Project. Construction of the alternative would also result in the loss of suitable habitat for the Sonoran Desert tortoise. APM B-14 would serve to minimize habitat loss, and native habitat would be restored in areas disturbed during construction under APM B-19. Habitat loss in Category II management areas would be limited to the Eagletail Mountains.

Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to Sonoran Desert Tortoise in Arizona would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Tortoise)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-7b Conduct pre-construction tortoise surveys.

B-7c Purchase mitigation lands for impacts to tortoise habitat.

Birds. There is no indication that any rare or listed birds occur along the SCE Harquahala-West Alternative. Surveys conducted of the alternative area did not detect the presence of listed bird species, and impacts would be considered less than significant (Class III). Although no listed bird species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Mammals. There is no indication that any rare or listed mammals occur along the SCE Harquahala-West Alternative. Surveys conducted of the alternative area did not detect the presence of listed mammal species, and impacts would be considered less than significant (Class III). Although no listed mammal species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

State or Federal Species of Special Concern

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class III)

No sensitive plant species have been identified as occurring within the vicinity of the SCE Harquahala-West Alternative, and none are expected to occur. Kofa mountain barberry has a low potential to occur in the area, but it is unlikely to occur along the alternative route. The alternative does not contain suitable habitat for sensitive plants and is located outside the geographical range for any of the sensitive plant species that were identified in Table D.2-4 to have a high or moderate potential to occur. These species have not been previously recorded in the alternative area and were not identified during surveys conducted by SCE. Implementation of APM B-8 (Pre-construction Surveys for Rare Plants) would reduce potential impacts to sensitive plants (Class III).

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates. Construction activities may result in direct mortality of the cheese-weed moth lacewing as a result of vehicle collisions or host plant destruction. Although APM B-23 was designed to minimize impacts to creosote bush to benefit Le Conte's thrasher, this would also serve to benefit cheese-weed moth lacewing which is associated with creosote bush communities. Additional surveys, sensitive area avoidance, and pre-cautionary construction measures are included in APMs B-1, B-3, B-8, B-10, B-12, B-13, B-14, B-16, and B-23. Although suitable habitat for the cheese-weed moth lacewing occurs along the alternative route, there are no known locations of the species within the vicinity of the SCE Harquahala-West Alternative. Consequently, implementation of the APMs listed above and avoidance of known locations of cheese-weed moth lacewing makes impacts to this species unlikely. Impacts to this species would be considered less than significant (Class III).

Fishes. As identified above for listed species, construction of the SCE Harquahala-West Alternative is not expected to impact aquatic habitat. Construction activities would avoid impacts to water bodies as the alternative would span irrigation canals that occur in the Harquahala Valley. Impacts from degra-

dation of water quality would be avoided by implementation of APM B-7 (Avoidance of Wetland Areas) and APM-B-21 (No Clearing of Riparian Habitat). Impacts to sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. There is no indication that any sensitive amphibians occur in the vicinity of the SCE Harquahala-West Alternative. Surveys conducted of the alternative area did not detect the presence of sensitive amphibian species in this segment and impacts would be considered less than significant (Class III). Although no sensitive amphibians were identified in the area, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Reptiles. The common chuckwalla, banded Gila monster, and desert rosy boa have the potential to occur on rocky slopes, foothills, and other rocky areas along the SCE Harquahala-West Alternative. There are no recorded occurrences of any of these species in the vicinity of the alternative. If individuals of these species do occur along this segment; direct mortality or injury could result from construction vehicles or equipment.

SCE has indicated that prior to construction, surveys for sensitive species would be conducted along the ROW (APM B-8 and B-16). Sensitive area avoidance and pre-cautionary construction measures are included in APMs B-3, B-5, and B-17. However, there is still potential for direct and indirect mortality of the common chuckwalla, banded Gila monster, and desert rosy boa; therefore construction-related impacts would be potentially significant (Class II), but would be reduced to less than significant levels with implementation of Mitigation Measures B-9b (Conduct biological monitoring), B-9c (Implement a Worker Environmental Awareness Program), and B-9d (Conduct pre-construction reptile surveys). In addition to APMs B-3, B-5, B-8, B-16, and B-17, the following mitigation measures would be implemented to reduce potential impacts to less than significant levels.

Mitigation Measures for Impact B-9: Construction activities would result in indirect impacts, a direct loss of individuals, or a direct loss of habitat for sensitive plant and/or wildlife species

B-9b Conduct biological monitoring

B-9c Implement a Worker Environmental Awareness Program.

B-9d Conduct pre-construction reptile surveys.

Birds. The SCE Harquahala-West Alternative would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, potential bird strikes on high tension wires, and disturbance of nesting activities. The burrowing owl is known to occur in along the alternative and an osprey was observed north of the area near the CAP canal and the Big Horn Mountains. Due to the preferred habitat of osprey to be near water, however, it is unlikely that this species would occur in the vicinity of the alternative route and would be impacted by construction activities. The SCE Harquahala-West Alternative may displace burrowing owls from wintering or nesting burrows or cause disturbance to resident birds. During construction activities, owl burrows may be crushed by construction equipment. Burrowing owls may also be displaced or abandon their burrows as a result of human interference and noise during construction activities. Additional surveys, sensitive area avoidance, and pre-cautionary construction measures are included in APMs B-3, B-5, B-16, and B-17. However, there is still potential for direct and indirect mortality of the western burrowing owl, and construction-related impacts would be potentially significant (Class II). Implementation of Mitigation Measure B-9e (Conduct pre-construction surveys and owl relocation) would reduce impacts to burrowing owls to less than significant levels.

Mitigation Measure for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-9e Conduct pre-construction surveys and owl relocation.

Mammals. Sensitive mammal species expected to occur along the SCE Harquahala-West Alternative include pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, cave myotis, and desert bighorn sheep.

While there are no recorded occurrences of pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, or cave myotis in the vicinity of the alternative, suitable habitat for these species is present and there is potential for them to occur along the route. Construction and maintenance activities are not expected to have an impact on sensitive bat species as the habitat located along the proposed alternative ROW would not be expected to support nesting or breeding activities of sensitive bats. Bats typically roost in trees, caves, rock crevices, or old buildings. The construction of the alternative would not impact roosting habitat nor would it impact foraging habitat for these species because the riparian and wetland habitats would be avoided.

Desert bighorn sheep may be present at the time of construction activities and may be adversely affected by visual disturbances, noise and dust associated with the activities. Bighorn sheep in the vicinity of the alternative may be disturbed or scared off as a result of the noise, but these impacts would be temporary and limited to the construction phase of the alternative. Construction vehicles would remain on established roads (APMs B-3 and B-17) to the maximum extent practicable in order to avoid unnecessary disturbances to wildlife, and vehicles would be required to drive at low speeds in tortoise habitat (APM B-29), which would also reduce the potential for collisions with other wildlife. Impacts to bighorn sheep could be adverse, but would be considered less than significant (Class III), and no additional mitigation is proposed. The SCE Harquahala-West Alternative would comply with the AGFD and BLM management policies for bighorn sheep.

State and Federal Jurisdictional Habitats

Impact B-10: Construction activities would result in adverse effects to jurisdictional waters and wetlands (Class II)

Although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are present along the SCE Harquahala-West Alternative. In addition, construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats), the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Therefore, any impact to jurisdictional waterways would be significant (Class II). Impacts would be reduced to a less than significant level with the implementation of Mitigation Measure B-1a (Implement a habitat restoration/compensation plan).

Mitigation Measure for Impact B-10: Construction activities would result in adverse effects to jurisdictional waters and wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Wildlife Corridors and Nursery Sites

Impact B-11: Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites (No Impact)

The drainages within the SCE Harquahala-West Alternative consist of desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events. Subsequently, most of the washes do not contain perennial flows and are not expected to support fish and other species that are dependent on permanent water sources. The exceptions along the alternative ROW are the irrigation canals in the Harquahala Valley. The transmission line will span the irrigation canals in the Harquahala Valley, and access to either side of these areas will utilize existing access roads. Therefore, no impacts to the movement of fish within the irrigation canals in the Harquahala Valley would occur.

Impact B-12: Construction activities would result in adverse effects to linkages and wildlife movement corridors (No Impact)

Linkages and corridors facilitate regional animal movement, and are generally centered on waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Construction of the SCE Harquahala-West Alternative is not expected to impact any linkages or wildlife movement corridors in the agricultural areas or in the desert scrub. These areas are not technically considered movement corridors. Rather, they generally provide for local movement of wildlife within large blocks of open space. No impacts to wildlife corridors would occur along the alternative.

Plans, Policies, and Ordinances

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (No Impact)

The SCE Harquahala-West Alternative, as an individual section of the project, would traverse BLM land, and Maricopa and La Paz Counties in Arizona. Plans developed by these jurisdictions, including the Maricopa County 2020 Comprehensive Plan, Maricopa County 2020 Tonopah-Arlington Area Plan, and the La Paz County Comprehensive Plan, were assessed to determine if any biological resources policies would apply to the construction and operation of the SCE Harquahala-West Alternative. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with this alternative and identified those policies that required further evaluation in this EIR/EIS. However, it was determined that no biological resources policies from the three aforementioned plans required further analysis, and the SCE Harquahala-West Alternative would not conflict with any of these policies.

Operational Impacts

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Impacts to birds would be the same as described for the Proposed Project. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV; as such "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in collisions by listed bird species (Class II)

Bird collisions for this segment would be similar to the Proposed Project. It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the vicinity of the alternative. These data are not available for the alternative transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest, such as along waterways or over adjacent agricultural areas like those in the Harquahala Valley. The operation of the SCE Harquahala-West Alternative may result in mortality of listed or sensitive bird species and this would be considered a significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a Utilize collision-reducing techniques in installation of transmission lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon juvenile tortoises as well as other wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the SCE Harquahala-West Alternative will result in an increase in potential nesting sites for common ravens. An increase in the number of ravens nesting in tortoise habitat will likely result in an increase in predation on juvenile tortoises and potentially on other wildlife species (including sensitive and/or listed species). An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a significant impact (Class II). Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a Prepare and implement a raven control plan.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the SCE Harquahala-West Alternative would require regular maintenance of the various facilities associated with the alternative. Maintenance activities require the use of access and spur roads by vehicles and equipment. The operation and maintenance activities will be conducted at about the same frequency as currently exists for the DPV1 transmission line. SCE has indicated that vehicle speeds would be limited to a maximum of 25 mph in desert tortoise habitat (APM B-29). The implementation of this APM, and the approximate same level of use of the roads as currently exists for operation and maintenance activities, will result in a similar impact to what currently exists. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse, but less than significant (Class III).

D.2.7.2 SCE Palo Verde Alternative

Environmental Setting

The SCE Palo Verde Alternative would travel through similar types of habitat as the Harquahala to Kofa NWR segment of the Proposed Project. This alternative would consist of generally undisturbed desert upland and xeroriparian vegetation typical of the Creosote–White Bursage series from MP 1 to about MP 9 where it would follow existing transmission lines. It would continue to follow existing lines along existing roads and disturbed areas from MP 0 to MP 1 and MP 9 to MP 15 at the PVNGS Switchyard. Typical plant species in the undisturbed portion include creosote bush, white bursage, ratany, plantain, and various cacti. The disturbed areas are primarily unvegetated, but contain some invasive plants, such as Mediterranean grass and Russian thistle along the edges and less recently disturbed areas. This alternative would bisect several washes that contain a variety of xeroriparian plant species, such as mesquite, catclaw acacia, and desert ironwood. Fairly dense pockets of vegetation occur between MP 11 and MP 12.

Several special status plant and wildlife species have potential to occur along the SCE Palo Verde Alternative. These species are the same as those identified in Section D.2.2.1, Harquahala to Kofa NWR, and include several bats, reptiles, an invertebrate, and cacti and woody plants protected by the Arizona Native Plant Law. The straw top cholla (*O. echinocarpa*) is a special status species that was identified by the AGFD as potentially occurring along this alternative. Additionally, migratory birds, burros, and bighorn sheep have potential to occur along this alternative. A portion of the SCE Palo Verde Alternative (MP 1 to about MP 8) would cross through habitat for the Sonoran Desert tortoise, which is designated by the BLM as Category II habitat and is managed to maintain stable, viable populations of tortoise and halt further declines in tortoise habitat values.

Impacts and Mitigation Measures

Construction and operation of the SCE Palo Verde Alternative would create similar direct and indirect impacts as those described in Section D.2.6 for the Proposed Project, Harquahala to Kofa NWR segment. The SCE Palo Verde Alternative would result in a longer transmission line (total distance of 240 miles instead of 230 miles) that would require the construction of more transmission towers and would result in additional ground disturbance and a loss of native desert scrub habitat. Overall, the impact potential and intensity for impacts resulting from construction and operation of the alternative would be similar to the Proposed Project, as discussed below.

Construction Impacts

Vegetation

The SCE Palo Verde Alternative would result in additional ground disturbance and a loss of native desert scrub habitat. As discussed in Section D.2.6.1, construction impacts to vegetation may occur in a variety of ways, including the direct removal of plants during the course of construction. Depending on the site specific topography, these impacts may extend beyond the ROW. The removal of common native vegetation types, such as desert scrub, coastal sage, or chaparral, creates possibilities for erosion or weed invasion that can affect adjacent and down slope habitats. As such, it is the indirect, off-ROW impacts associated with the removal of native vegetation that may be significant. Removal or incidental loss of sensitive species or individual native specimen trees would also be considered a significant impact. The following discussion addresses construction impacts to native vegetation types resulting from the SCE Palo Verde Alternative.

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

The SCE Palo Verde Alternative would result in both temporary and permanent impacts to Sonoran desert scrub habitat in this segment of the ROW. Construction impacts would be the same as described for the Proposed Project. These activities would result in the permanent removal of Sonoran desert scrub at tower sites located along the alternative. The permanent loss or temporary disturbance of Sonoran desert scrub habitat would be considered a significant (Class II) impact without mitigation. Potential impacts to native vegetation would be reduced to a less than significant level through implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan).

Mitigation Measure for Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Impact B-2: Construction activities would result in the introduction invasive non-native or noxious plant species (Class II)

The introduction of invasive non-native or noxious plant species would be the same as described for the Proposed Project The introduction of invasive non-native or noxious plant species would be considered a significant impact (Class II). Implementation of the Mitigation Measures B-1a (Implement a Habitat Restoration/Compensation Plan), B-2a (Conduct invasive and noxious weed inventory), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of non-native plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-2a Conduct invasive and noxious weed inventory.

B-2b Implement control measures for noxious weeds.

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. This impact would be the same as described for the Proposed Project. As the construction activities will be temporary, the increased dust settling on plants is not expected to be a significant or adverse impact (Class III).

Wildlife

Direct impacts on wildlife anticipated as a result of the SCE Palo Verde Alternative include the removal of vegetation, which would result in the temporary loss of wildlife habitat along with the displacement and/or potential mortality of resident wildlife species that are poor dispersers such as snakes, lizards, and small mammals. Construction may also result in the temporary degradation of the value of adjacent native habitat areas due to disturbance, noise, increased human presence, and increased vehicle traffic during construction. Depending on the timing and location of construction activities, the alternative may also result in temporary disruption along terrestrial and riparian wildlife movement corridors crossed by the alternative route.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

Direct loss of small mammals, reptiles, and other less mobile species could occur during construction of the SCE Palo Verde Alternative. Construction activities and human presence can also alter or disrupt the breeding and foraging habitat for wildlife species.

A large part of the proposed route would be constructed along the existing utility ROW and within or immediately adjacent to existing maintained road easements. Most of the wildlife expected to be impacted by construction in these disturbed easements is composed of common, wide-ranging species. Due to the narrow area of disturbance along this alternative and the short duration of disturbance, most of the more common wildlife species found along the route are expected to quickly recolonize the corridor after construction and subsequent revegetation work is completed. Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on wildlife from construction would generate potentially adverse but less than significant impacts (Class III). Impacts from construction on listed and candidate wildlife species are discussed separately under Threatened or Endangered Wildlife.

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

As described above, ground-disturbing activity including tower pad preparation and construction and grading of new access roads has the potential to disturb vegetation utilized by nesting birds. The SCE Palo Verde Alternative encompasses variable habitats for nesting and migratory birds, which may provide potential nesting opportunities along the alternative route. These areas include native and non-native trees and shrubs and natural rock features such as cliffs and large rock outcrops associated with Saddle Mountain, Palo Verde Hills, Big Horn Mountains, and Eagle Mountains.

Impacts to raptors, burrowing owls, or other nesting birds during breeding season would be considered significant without mitigation. APMs B-8 and B-16 would require additional detailed surveys within a 100-foot buffer around the area of disturbance and avoidance of sensitive sites. These APMs, by themselves, would not sufficiently ensure that impacts to migratory birds would be less than significant. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would ensure that violation of the Migratory Bird Treaty Act does not occur and would reduce impacts to nesting birds to a less than significant level (Class II).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

Threatened or Endangered Plant or Wildlife Species

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class II)

The SCE Palo Verde Alternative would result in removal of Sonoran desert scrub habitat in this segment of the ROW. Any ground-disturbing activity, including tower pad preparation and construction, grading of new access roads, transportation, maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads has the poten-

tial to disturb vegetation. Similar to the Proposed Project these activities would result in potential impacts to two federally listed species Arizona agave, and Arizona cliff rose. The alternative may also remove other plant species protected by the Arizona Native Plant Law, including blue palo verde, foothill palo verde, velvet mesquite, desert ironwood, ocotillo, and various cacti (saguaro, chollas, barrel, hedgehog, beavertail, prickly pear, desert Christmas, and nipple) that occur within the alternative route. These species are protected from being salvaged, harvested, or otherwise removed from the environment.

SCE would implement APMs that would require construction vehicles to travel on established roads, to the maximum extent practicable (APM B-3), and that spur roads, access roads, and other disturbed sites created during construction are recontoured and restored following construction activities (APM B-19).

In addition, the APMs would ensure that pre-construction surveys for sensitive or protected plants are conducted (APM B-8) and concentrations of sensitive plants and salvage-restricted plants are avoided or individuals transplanted (APM B-9; B-12; B-13). APM B-9 requires that *Ferocactus* and *Coryphantha* species be transplanted, and other native plants may be transplanted (APM B-12) or sold to SCE. Because there is still potential for significant impacts to occur to native plants protected under the Arizona Native Plant Law, construction-related impacts would be potentially significant (Class II). With the implementation of Mitigation Measure B-6a (Develop a transplanting plan), impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-6: Construction activities would result in indirect or direct loss of listed plants

B-6a Develop a transplanting plan.

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

While there is only one listed terrestrial wildlife species known or expected to occur in the general vicinity of the SCE Palo Verde Alternative, other species could potentially occur in the area. Impacts to these species could be caused by temporary incremental loss of habitat and accidental death of individuals during land clearing, excavation, and grading phases of the SCE Palo Verde Alternative. In addition, individuals near the construction area may temporarily abandon their territories due to disturbance from noise and increased human activity. The following discussion highlights construction impacts that would occur to specific threatened or endangered wildlife species.

Invertebrates. There is no indication that any rare or listed invertebrates occur along SCE Palo Verde Alternative. Surveys conducted of the alternative area did not detect the presence of listed invertebrates, and impacts would be considered less than significant (Class III). Although no listed invertebrate species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Fishes. As described above, here is no indication that any rare or listed fish species occur in along the SCE Palo Verde Alternative. Surveys conducted of the alternative area did not detect the presence of listed fish species, and impacts would be considered less than significant (Class III).

Amphibians. There is no indication that any rare or listed amphibians occur along the SCE Palo Verde Alternative. Surveys conducted of the alternative area did not detect the presence of listed amphibian species, and impacts would be considered less than significant (Class III). Although no listed amphibians were identified, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Reptiles – Desert Tortoise. The SCE Palo Verde Alternative contains Sonoran desert scrub habitat that has the potential to support desert tortoise, a federal- and State-listed threatened species. Although this species has not been found during surveys of the alternative and the area has not been designated as critical habitat for this species, the habitat is still considered suitable for desert tortoise. If present, this species would be subject to disturbance and possible mortality from construction vehicles on roads, at staging/laydown areas, and at tower construction sites. Desert tortoises are known to occasionally travel long distances of up to several miles or more.

Construction activities that affect the Sonoran Desert tortoise would be similar to the Proposed Project. Construction of the alternative would also result in the loss of suitable habitat for the Sonoran Desert tortoise. APM B-14 would serve to minimize habitat loss, and native habitat would be restored in areas disturbed during construction under APM B-19. Habitat loss in Category II management areas would be limited to approximately one linear mile in the Eagletail Mountains, and habitat loss in Category III management areas would consist of approximately eight linear miles in the Big Horn Mountains.

Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to Sonoran Desert Tortoise would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Tortoise)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-7b Conduct pre-construction tortoise surveys.

B-7c Purchase mitigation lands for impacts to tortoise habitat.

Birds. There is no indication that any rare or listed birds occur along the SCE Palo Verde Alternative. Surveys conducted of the alternative area did not detect the presence of listed bird species, and impacts would be considered less than significant (Class III). Although no listed bird species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Mammals. There is no indication that any rare or listed mammals occur along the SCE Palo Verde Alternative. Surveys conducted of the alternative area did not detect the presence of listed mammal species, and impacts would be considered less than significant (Class III). Although no listed mammal species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

State or Federal Species of Special Concern

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class III)

No sensitive plant species have been identified as occurring within the vicinity of the SCE Palo Verde Alternative, and none are expected to occur. Kofa mountain barberry has a low potential to occur in the area, but it is unlikely to occur along the alternative route. The alternative does not contain suitable habitat for sensitive plants and is located outside the geographical range for any of the sensitive plant species that were identified in Table D.2-4 to have a high or moderate potential to occur. These species have not been previously recorded in the alternative area and were not identified during surveys conducted by SCE. Implementation of APM B-8 (Pre-construction Surveys for Rare Plants) would minimize impacts to sensitive plants (Class III).

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates. Construction activities may result in direct mortality of the cheese-weed moth lacewing as a result of vehicle collisions or host plant destruction. Although APM B-23 was designed to minimize impacts to creosote bush to benefit Le Conte's thrasher, this would also serve to benefit cheese-weed moth lacewing which is associated with creosote bush communities. Additional surveys, sensitive area avoidance, and pre-cautionary construction measures are included in APMs B-1, B-3, B-8, B-10, B-12, B-13, B-14, B-16, and B-23. Although suitable habitat for the cheese-weed moth lacewing occurs along the alternative route, there are no known locations of the species within the vicinity of the SCE Palo Verde Alternative. Consequently, implementation of the APMs listed above and avoidance of known locations of cheese-weed moth lacewing makes impacts to this species unlikely. Impacts to this species would be considered less than significant (Class III).

Fishes. As identified above for listed species, construction of the SCE Palo Verde Alternative is not expected to impact aquatic habitat. Construction activities would avoid impacts to water bodies as the alternative would span irrigation canals that occur in the Harquahala Valley. Impacts from degradation of water quality would be avoided by implementation of APM B-7 (Avoidance of Wetland Areas) and APM-B-21 (No Clearing of Riparian Habitat). Impacts to sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. There is no indication that any sensitive amphibians occur in the vicinity of the SCE Palo Verde Alternative. Surveys conducted of the alternative area did not detect the presence of sensitive amphibian species in this segment and impacts would be considered less than significant (Class III). Although no sensitive amphibians were identified in the area, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Reptiles. The common chuckwalla, banded Gila monster, and desert rosy boa have the potential to occur on rocky slopes, foothills, and other rocky areas along the SCE Palo Verde Alternative. There are no recorded occurrences of any of these species in the vicinity of the alternative. If individuals of these species do occur along this segment; direct mortality or injury could result from construction vehicles or equipment.

SCE has indicated that prior to construction, surveys for sensitive species would be conducted along the ROW (APM B-8 and B-16). Sensitive area avoidance and pre-cautionary construction measures are included in APMs B-3, B-5, and B-17. However, there is still potential for direct and indirect mortality

of the common chuckwalla, banded Gila monster, and desert rosy boa; therefore construction-related impacts would be potentially significant (Class II), but would be reduced to less than significant levels with implementation of Mitigation Measures B-9b (Conduct biological monitoring), B-9c (Conduct Implement a Worker Environmental Awareness Program), and B-9d (Conduct pre-construction reptile surveys). In addition to APMs B-3, B-5, B-8, B-16, and B-17, the following mitigation measures would be implemented to reduce potential impacts to less than significant levels.

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Reptiles)

B-9b Conduct biological monitoring.

B-9c Implement a Worker Environmental Awareness Program.

B-9d Conduct pre-construction reptile surveys.

Birds. The SCE Palo Verde Alternative would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, potential bird strikes on high tension wires, and disturbance of nesting activities. The burrowing owl is known to occur in along the alternative and an osprey was observed north of the area near the CAP canal and the Big Horn Mountains. Due to the preferred habitat of osprey to be near water, however, it is unlikely that this species would occur in the vicinity of the alternative route and would be impacted by construction activities. The SCE Palo Verde Alternative may displace burrowing owls from wintering or nesting burrows or cause disturbance to resident birds. During construction activities, owl burrows may be crushed by construction equipment. Burrowing owls may also be displaced or abandon their burrows as a result of human interference and noise during construction activities. Additional surveys, sensitive area avoidance, and precautionary construction measures are included in APMs B-3, B-5, B-16, and B-17. However, there is still potential for direct and indirect mortality of the western burrowing owl, and construction-related impacts would be potentially significant (Class II). Implementation of Mitigation Measure B-9e (Conduct pre-construction surveys and owl relocation) would reduce impacts to burrowing owls to less than significant levels. Mitigation Measure B-9e (Conduct pre-construction surveys and owl re-location) presents additional detail for the aforementioned APMs, and would therefore supersede these APMs.

Mitigation Measure for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Burrowing Owls)

B-9e Conduct pre-construction surveys and owl re-location.

Mammals. Sensitive mammal species expected to occur along the SCE Palo Verde Alternative include pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, cave myotis, wild free-roaming horses and burros, and desert bighorn sheep.

While there are no recorded occurrences of pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, or cave myotis in the vicinity of the alternative, suitable habitat for these species is present and there is potential for them to occur along the route. Construction and maintenance activities are not expected to have an impact on sensitive bat species as the habitat located along the proposed alternative ROW would not be expected to support nesting or breeding activities of sensitive bats. Bats typically roost in trees, caves, rock crevices, or old buildings. The construction of the alternative would not impact roosting habitat nor would it impact foraging habitat for these species because the riparian and wetland habitats would be avoided.

Desert bighorn sheep may be present at the time of construction activities and may be adversely affected by visual disturbances, noise and dust associated with the activities. Bighorn sheep in the vicinity of the alternative may be disturbed or scared off as a result of the noise, but these impacts would be temporary and limited to the construction phase of the alternative. Construction vehicles would remain on established roads (APMs B-3 and B-17) to the maximum extent practicable in order to avoid unnecessary disturbances to wildlife, and vehicles would be required to drive at low speeds in tortoise habitat (APM B-29), which would also reduce the potential for collisions with other wildlife. Impacts to bighorn sheep could be adverse, but would be considered less than significant (Class III), and no additional mitigation is proposed. The SCE Palo Verde Alternative would comply with the AGFD and BLM management policies for bighorn sheep.

State and Federal Jurisdictional Habitats

Impact B-10: Construction activities would result in adverse effects to jurisdictional waters and wetlands (Class II)

Although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are present along the SCE Palo Verde Alternative. In addition, construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats), the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Therefore, any impact to jurisdictional waterways would be significant (Class II). Impacts would be reduced to a less than significant level with the implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan).

Mitigation Measure for Impact B-10: Construction activities would result in adverse effects to jurisdictional waters and wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Wildlife Corridors and Nursery Sites

Impact B-11: Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites (No Impact)

The drainages within the SCE Palo Verde Alternative consist of desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events. Subsequently, most of the washes do not contain perennial flows and are not expected to support fish and other species that are dependent on permanent water sources. The exceptions along the alternative ROW are the irrigation canals in the Harquahala Valley. The transmission line will span the irrigation canals in the Harquahala Valley, and access to either side of these areas will utilize existing access roads. Therefore, no impacts to the movement of fish within the irrigation canals in the Harquahala Valley would occur.

Impact B-12: Construction activities would result in adverse effects to linkages and wildlife movement corridors (No Impact)

Linkages and corridors facilitate regional animal movement, and are generally centered on waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Construction of the SCE Palo Verde Alternative is not expected to impact any linkages or wildlife movement corridors in the agricultural areas or in the desert scrub. These areas are not technically considered movement corridors. Rather, they generally provide for local movement of wildlife within large blocks of open space. No impacts to wildlife corridors would occur along the alternative.

Plans, Policies, and Ordinances

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (No Impact)

The SCE Palo Verde Alternative, as an individual section of the project, would traverse BLM land and Maricopa County in Arizona. Plans developed by this jurisdiction, including the Maricopa County 2020 Comprehensive Plan and the Maricopa County 2020 Tonopah-Arlington Area Plan, were assessed to determine if any biological resources policies would apply to the construction and operation of the SCE Palo Verde Alternative. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with this alternative and identified those policies that required further evaluation in this EIR/EIS. However, it was determined that no biological resources policies from the two aforementioned plans required further analysis, and the SCE Palo Verde Alternative would not conflict with any of these policies.

Operational Impacts

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Impacts to birds would be the same as described for the Proposed Project. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV; as such "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in collisions by listed bird species (Class II)

Bird collisions would be the same as the Proposed Project. It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the vicinity of the alternative. These data are not available for the alternative transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest, such as along waterways or over adjacent agricultural areas like those in the Harquahala Valley. The operation of the SCE Palo Verde Alternative may result in mortality of listed or sensitive bird species and this would be considered a significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a Utilize collision-reducing techniques in installation of transmission lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon juvenile tortoises as well as other wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the SCE Palo Verde Alternative will result in an increase in potential nesting sites for common ravens. An increase in the number of ravens nesting in tortoise habitat will likely result in an increase in predation on juvenile tortoises and potentially on other wildlife species (including sensitive and/or listed species). APM B-20 states that "all transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS Division of Law Enforcement to "take" common ravens or their nests." This APM partially reduces the impacts of common ravens on listed and sensitive wildlife species. However, the impacts may still remain significant if the various companies do not check the towers and remove nests on a regular basis and if the various companies remove other nests that are actively utilized by other raptors. An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a significant impact (Class II). Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a Prepare and implement a raven control plan.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the SCE Palo Verde Alternative will require regular maintenance of the various facilities associated with the alternative. Maintenance activities require the use of access and spur roads by vehicles and equipment. The operation and maintenance activities will be conducted at about the same frequency as currently exists for the DPV1 transmission line. SCE has indicated that vehicle speeds would be limited to a maximum of 25 mph in desert tortoise habitat (APM B-29). The implementation of this APM, and the approximate same level of use of the roads as currently exists for operation and maintenance activities, will result in a similar impact to what currently exists. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse, but less than significant (Class III).

D.2.7.3 Harquahala Junction Switchyard Alternative

Environmental Setting

The Harquahala Junction Switchyard Alternative site would be located within the Creosote–White Bursage habitat series and is primarily undisturbed. The proposed site contains typical species associated with the Desert scrub community, and several ephemeral washes are present in the area.

Several special status plant and wildlife species have potential to occur on the Harquahala Junction Switchyard Alternative site. These species are the same as those identified in Section D.2.2.1, Harquahala to Kofa NWR, and include several bats, reptiles, an invertebrate, and cacti and woody plants protected by the Arizona Native Plant Law. Additionally, migratory birds, burros, and bighorn sheep have potential to occur on the site.

Impacts and Mitigation Measures

Construction and operation of the Harquahala Junction Switchyard Alternative would result in similar direct and indirect impacts as those described in Section D.2.6 for the Proposed Project, Harquahala to Kofa NWR segment. The Harquahala Junction Switchyard Alternative would result in a slightly shorter transmission line (total distance of 225 miles instead of 230 miles); however, a new switchyard would be constructed on up to 40 acres of land, which would create an additional impact of between 6 and 40 acres of undisturbed, native desert scrub habitat. Overall, the impact potential and intensity for impacts resulting from construction and operation of the alternative would be similar to the Proposed Project, as discussed below.

Construction Impacts

Vegetation

The Harquahala Junction Switchyard Alternative would construct a new switchyard that would contribute to a loss of native desert scrub habitat. As discussed in Section D.2.6.1, construction impacts to vegetation may occur in a variety of ways, including the direct removal of plants during the course of construction. The following discussion addresses construction impacts to native vegetation types resulting from the Harquahala Junction Switchyard Alternative.

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

The Harquahala Junction Switchyard Alternative would result in both temporary and permanent impacts to Sonoran desert scrub habitat. Ground-disturbing activities associated with the switchyard and transmission facilities have the potential to disturb vegetation. These activities would result in the permanent removal of Sonoran desert scrub at the switchyard and tower sites located along the alternative. The permanent loss or temporary disturbance of Sonoran desert scrub habitat would be considered a significant (Class II) impact without mitigation. Under this alternative additional impact to desert scrub habitats would occur. Potential impacts to native vegetation would be reduced to a less than significant level through implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/ Compensation Plan).

Mitigation Measure for Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species (Class II)

The introduction of non-native plant species would be the same as described for the Proposed Project except that a greater area would be subject to potential invasion by non-native weeds. The introduction of non-native plant species would be considered a significant impact (Class II). Implementation of the Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-2a (Conduct invasive and noxious weed inventory), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-2a Conduct invasive and noxious weed inventory.

B-2b Implement control measures for invasive and noxious weeds.

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. Increased levels of dust on the leaves of plants can decrease the photosynthetic capabilities of the plants. SCE would implement Title 1 measures (Air Quality) to decrease fugitive dust including reduced vehicle speeds, use of tackifiers, and periodic watering of the ROW. Watering will be done in such a way as to prevent pooling of water on the soil surface so that toad species would not be stimulated to emerge from their subsoil aestivation burrows prior to natural rain events. Because the vegetation in desert areas is typically subject to blowing winds and dust, the additional levels of dust would not be expected to significantly impact the photosynthetic capabilities of plants in the surrounding areas. In addition, because the construction activities will be temporary, the increased dust settling on plants is not expected to be an adverse impact (Class III).

Wildlife

Direct impacts on wildlife anticipated as a result of the Harquahala Junction Switchyard Alternative include the removal of vegetation, which would result in the temporary loss of wildlife habitat along with the displacement and/or potential mortality of resident wildlife species that are poor dispersers such as snakes, lizards, and small mammals. Construction may also result in the temporary degradation of the value of adjacent native habitat areas due to disturbance, noise, increased human presence, and increased vehicle traffic during construction. Depending on the timing and location of construction activities, the alternative may also result in temporary disruption along terrestrial and riparian wildlife movement corridors crossed by or adjacent to the alternative.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

Direct loss of small mammals, reptiles, and other less mobile species could occur during construction of the Harquahala Junction Switchyard Alternative. This action would result primarily from the use of construction vehicles and the grading of laydown areas for the switchyard and transmission tower erection. Construction activities and human presence can also alter or disrupt the breeding and foraging habitat for wildlife species.

A large part of the alternative would be constructed adjacent to the existing utility ROW and within or immediately adjacent to existing maintained road easements. Most of the wildlife expected to be impacted by construction in these disturbed easements is composed of common, wide-ranging species. Due to the narrow area of disturbance along this alternative and the short duration of disturbance, most of the more common wildlife species found along the route are expected to quickly recolonize the corridor after construction and subsequent revegetation work is completed. Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on wildlife from construction would generate potentially adverse but less than significant impacts (Class III). Impacts from construction on listed and candidate wildlife species are discussed separately under Threatened or Endangered Wildlife.

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

As described above, ground-disturbing activities have the potential to disturb vegetation utilized by nesting birds. The Harquahala Junction Switchyard Alternative encompasses variable habitats for nesting and migratory birds, which may provide potential nesting opportunities along the alternative. These areas include native and non-native trees and shrubs and natural rock features such as cliffs and large rock outcrops associated with Saddle Mountain, Palo Verde Hills, Big Horn Mountains, and Eagle Mountains.

Impacts to raptors, burrowing owls, or other nesting birds during breeding season would be considered significant. APMs B-8 and B-16 would require additional detailed surveys within a 100-foot buffer around the area of disturbance and avoidance of sensitive sites. These APMs, by themselves, would not sufficiently ensure that impacts to migratory birds would be less than significant. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would ensure that violation of the Migratory Bird Treaty Act does not occur and would reduce impacts to nesting birds to a less than significant level (Class II).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

Threatened or Endangered Plant or Wildlife Species

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class II)

The Harquahala Junction Switchyard Alternative would result in removal of Sonoran desert scrub habitat. Any ground-disturbing activity, including tower pad preparation and construction, grading of new access roads, transportation, maintenance of construction equipment and supplies, staging area and

material yard preparation and use, and use or improvement of existing access roads has the potential to disturb vegetation. Similar to the Proposed Project these activities would result in potential impacts to two federally listed species Arizona agave, and Arizona cliffrose. The alternative may also remove other plant species protected by the Arizona Native Plant Law, including blue palo verde, foothill palo verde, velvet mesquite, desert ironwood, ocotillo, and various cacti (saguaro, chollas, barrel, hedgehog, beavertail, prickly pear, desert Christmas, and nipple) that occur within the alternative route. These species are protected from being salvaged, harvested, or otherwise removed from the environment.

SCE would implement APMs that would require construction vehicles to travel on established roads, to the maximum extent practicable (APM B-3), and that spur roads, access roads, and other disturbed sites created during construction are recontoured and restored following construction activities (APM B-19).

In addition, the APMs would ensure that pre-construction surveys for sensitive or protected plants are conducted (APM B-8) and concentrations of sensitive plants and salvage-restricted plants are avoided or individuals transplanted (APM B-9; B-12; B-13). APM B-9 requires that *Ferocactus* and *Coryphantha* species be transplanted, and other native plants may be transplanted (APM B-12) or sold to SCE. Because there is still potential for significant impacts to occur to native plants protected under the Arizona Native Plant Law, construction-related impacts would be potentially significant (Class II). With the implementation of Mitigation Measure B-6a (Develop a transplanting plan), impacts would be reduced to a less than significant level.

The Harquahala Junction Switchyard Alternative would not conflict with conditions of the Arizona Native Plant Law.

Mitigation Measure for Impact B-6: Construction activities would result in indirect or direct loss of listed plants

B-6a Develop a transplanting plan.

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

While only one listed terrestrial wildlife species is known or expected to occur in the general vicinity of the Harquahala Junction Switchyard Alternative, other species could potentially occur in the area. Impacts to these species could be caused by temporary incremental loss of habitat and accidental death of individuals during land clearing, excavation, and grading phases of the Harquahala Junction Switchyard Alternative. In addition, individuals near the construction area may temporarily abandon their territories due to disturbance from noise and increased human activity. The following discussion highlights construction impacts that would occur to specific threatened or endangered wildlife species.

Invertebrates. There is no indication that any rare or listed invertebrates occur along Harquahala Junction Switchyard Alternative. Surveys conducted of the alternative area did not detect the presence of listed invertebrates, and impacts would be considered less than significant (Class III). Although no listed invertebrate species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Preconstruction Surveys) prior to construction.

Fishes. As described above, there is no indication that any rare or listed fish species occur in along the Harquahala Junction Switchyard Alternative. Surveys conducted of the alternative area did not detect the presence of listed fish species, and impacts would be considered less than significant (Class III).

Amphibians. There is no indication that any rare or listed amphibians occur along the Harquahala Junction Switchyard Alternative. Surveys conducted of the alternative area did not detect the presence of listed amphibian species, and impacts would be considered less than significant (Class III). Although no listed amphibians were identified, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Reptiles – Desert Tortoise. The Harquahala Junction Switchyard Alternative contains Sonoran desert scrub habitat that has the potential to support desert tortoise, a federal- and State-listed threatened species. Although this species has not been found during surveys of the alternative and the area has not been designated as critical habitat for this species, the habitat is still considered suitable for desert tortoise. If present, this species would be subject to disturbance and possible mortality from construction vehicles on roads, at staging/laydown areas, and at tower construction sites. Desert tortoises are known to occasionally travel long distances of up to several miles or more.

Construction activities that affect the Sonoran Desert tortoise would be similar to the Proposed Project. Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to Sonoran Desert Tortoise would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Tortoise)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-7b Conduct pre-construction tortoise surveys.

B-7c Purchase mitigation lands for impacts to tortoise habitat.

Birds. There is no indication that any rare or listed birds occur along the Harquahala Junction Switchyard Alternative. Surveys conducted of the alternative area did not detect the presence of listed bird species, and impacts would be considered less than significant (Class III). Although no listed bird species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Mammals. There is no indication that any rare or listed mammals occur along the Harquahala Junction Switchyard Alternative. Surveys conducted of the alternative area did not detect the presence of listed mammal species, and impacts would be considered less than significant (Class III). Although no listed mammal species were identified in the vicinity of the alternative, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

State or Federal Species of Special Concern

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class III)

No sensitive plant species have been identified as occurring within the vicinity of the Harquahala Junction Switchyard Alternative, and none are expected to occur. Kofa mountain barberry has a low potential to occur in the area, but it is unlikely to occur within the vicinity of the switchyard or associated transmission facilities. The alternative does not contain suitable habitat for sensitive plants and is located outside the geographical range for any of the sensitive plant species that were identified in Table D.2-4 to have a high or moderate potential to occur. These species have not been previously recorded in the alternative area and were not identified during surveys conducted by SCE. Implementation of APM B-8 (Pre-construction Surveys for Rare Plants) would minimize potential impacts to sensitive plants (Class III).

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates

Construction activities may result in direct mortality of the cheese-weed moth lacewing as a result of vehicle collisions or host plant destruction. Although APM B-23 was designed to minimize impacts to creosote bush to benefit Le Conte's thrasher, this would also serve to benefit cheese-weed moth lacewing which is associated with creosote bush communities. Additional surveys, sensitive area avoidance, and precautionary construction measures are included in APMs B-1, B-3, B-8, B-10, B-12, B-13, B-14, B-16, and B-23. Although suitable habitat for the cheese-weed moth lacewing occurs along the alternative route, there are no known locations of the species within the vicinity of the Harquahala Junction Switchyard Alternative. Consequently, implementation of the APMs listed above and avoidance of known locations of cheese-weed moth lacewing makes impacts to this species unlikely. Impacts to this species would be considered less than significant (Class III).

Fishes. As identified above for listed species, construction of the Harquahala Junction Switchyard Alternative is not expected to impact aquatic habitat. Construction activities would avoid impacts to water bodies as the alternative would span irrigation canals that occur in the Harquahala Valley. Impacts from degradation of water quality would be avoided by implementation of APM B-7 (Avoidance of Wetland Areas) and APM-B-21 (No Clearing of Riparian Habitat). Impacts to sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. There is no indication that any sensitive amphibians occur in the vicinity of the Harquahala Junction Switchyard Alternative. Surveys conducted of the alternative area did not detect the presence of sensitive amphibian species in this segment and impacts would be considered less than significant (Class III). Although no sensitive amphibians were identified in the area, SCE would implement APM B-16 (Pre-construction Surveys) prior to construction.

Reptiles. The common chuckwalla, banded Gila monster, and desert rosy boa have the potential to occur on rocky slopes, foothills, and other rocky areas along the Harquahala Junction Switchyard Alternative. There are no recorded occurrences of any of these species in the vicinity of the alternative. If individuals of these species do occur along this segment; direct mortality or injury could result from construction vehicles or equipment.

SCE has indicated that prior to construction, surveys for sensitive species would be conducted along the ROW (APM B-8 and B-16). Sensitive area avoidance and pre-cautionary construction measures are included in APMs B-3, B-5, and B-17. However, there is still potential for direct and indirect mortality of the common chuckwalla, banded Gila monster, and desert rosy boa; therefore construction-related impacts would be potentially significant (Class II), but would be reduced to less than significant levels with the Mitigation Measures B-9b (Conduct biological monitoring), B-9c (Implement a Worker Environmental Awareness Program), B-9d (Conduct pre-construction reptile surveys). In addition to APMs B-3, B-5, B-8, B-16, and B-17, the following mitigation measures would be implemented to reduce potential impacts to less than significant levels.

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-9b Conduct biological monitoring.

B-9c Implement a Worker Environmental Awareness Program.

B-9d Conduct pre-construction reptile surveys.

Birds. The Harquahala Junction Switchyard Alternative would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, potential bird strikes on high tension wires, and disturbance of nesting activities. The burrowing owl is known to occur in along the alternative and an osprey was observed north of the area near the CAP canal and the Big Horn Mountains. Due to the preferred habitat of osprey to be near water, however, it is unlikely that this species would occur in the vicinity of switchyard and would be impacted by construction activities. The Harquahala Junction Switchyard Alternative may displace burrowing owls from wintering or nesting burrows or cause disturbance to resident birds. During construction activities, owl burrows may be crushed by construction equipment. Burrowing owls may also be displaced or abandon their burrows as a result of human interference and noise during construction activities. Additional surveys, sensitive area avoidance, and pre-cautionary construction measures are included in APMs B-3, B-5, B-16, and B-17. However, there is still potential for direct and indirect mortality of the western burrowing owl, and construction-related impacts would be potentially significant (Class II). Implementation of Mitigation Measure B-9e (Conduct pre-construction surveys and owl relocation) would reduce impacts to burrowing owls to less than significant levels. Mitigation Measure B-9e (Conduct pre-construction surveys and owl re-location) presents additional detail for the aforementioned APMs, and would therefore supersede these APMs.

Mitigation Measure for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Burrowing Owl)

B-9e Conduct pre-construction surveys and owl relocation.

Mammals. Sensitive mammal species expected to occur along the Harquahala Junction Switchyard Alternative include pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, cave myotis, and desert bighorn sheep.

While there are no recorded occurrences of pocketed free-tailed bat, big free-tailed bat, California leaf-nosed bat, or cave myotis in the vicinity of the alternative, suitable habitat for these species is present and there is potential for them to occur along the route. Construction and maintenance activities are not expected to have an impact on sensitive bat species as the habitat located near the switchyard would not be expected to support nesting or breeding activities of sensitive bats. Bats typically roost in trees,

caves, rock crevices, or old buildings. The construction of the alternative would not impact roosting habitat nor would it impact foraging habitat for these species because the riparian and wetland habitats would be avoided.

Desert bighorn sheep may be present at the time of construction activities and may be adversely affected by visual disturbances, noise, and dust associated with the activities. Bighorn sheep in the vicinity of the alternative may be disturbed or scared off as a result of the noise, but these impacts would be temporary and limited to the construction phase of the alternative. Construction vehicles would remain on established roads (APMs B-3 and B-17) to the maximum extent practicable in order to avoid unnecessary disturbances to wildlife, and vehicles would be required to drive at low speeds in tortoise habitat (APM B-29), which would also reduce the potential for collisions with other wildlife. Impacts to bighorn sheep could be adverse, but would be considered less than significant (Class III), and no additional mitigation is proposed. The Harquahala Junction Switchyard Alternative would comply with the AGFD and BLM management policies for bighorn sheep.

State and Federal Jurisdictional Habitats

Impact B-10: Construction activities would result in adverse effects to jurisdictional waters and wetlands (Class II)

Although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are present along the Harquahala Junction Switchyard Alternative. In addition, construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats), the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Therefore, any impact to jurisdictional waterways would be significant (Class II). Impacts would be reduced to a less than significant level with the implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan).

Mitigation Measure for Impact B-10: Construction activities would result in adverse effects to jurisdictional waters and wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Wildlife Corridors and Nursery Sites

Impact B-11: Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites (No Impact)

The drainages within the Harquahala Junction Switchyard Alternative consist of desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events. Subsequently, most of the washes do not contain perennial flows and are not expected to support fish and other species that are dependent on permanent water sources. The exceptions within the vicinity of the switchyard are the irrigation canals in the Harquahala Valley. Any transmission facilities associated with the switchyard would span the irrigation canals in the Harquahala Valley, and access to either side of these areas would utilize existing access roads. Therefore, no impacts to the movement of fish within the irrigation canals in the Harquahala Valley would occur.

Impact B-12: Construction activities would result in adverse effects to linkages and wildlife movement corridors (No Impact)

Linkages and corridors facilitate regional animal movement, and are generally centered on waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Construction of the Harquahala Junction Switchyard Alternative is not expected to impact any linkages or wildlife movement corridors in the agricultural areas or in the desert scrub. These areas are not technically considered movement corridors. Rather, they generally provide for local movement of wildlife within large blocks of open space. No impacts to wildlife corridors would occur along the alternative.

Plans, Policies, and Ordinances

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (No Impact)

The Harquahala Junction Switchyard Alternative, as an individual section of the project, would be located Maricopa County in Arizona. Plans developed by this jurisdiction, including the Maricopa County 2020 Comprehensive Plan and the Maricopa County 2020 Tonopah-Arlington Area Plan, were assessed to determine if any biological resources policies would apply to the construction and operation of this alternative. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with this alternative and identified those policies that required further evaluation in this EIR/EIS. However, it was determined that no biological resources policies from the two aforementioned plans required further analysis, and the Harquahala Junction Switchyard Alternative would not conflict with any of these policies.

Operational Impacts

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Impacts to birds would be the same as described for the Proposed Project. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV; as such "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in collisions by listed bird species (Class II)

Bird collisions would be the same as the Proposed Project. It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the vicinity of the alternative. These data are not available for the alternative transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest, such as along waterways or over adjacent agricultural areas like those in the Harquahala Valley. The operation of the SCE Palo Verde Alternative may result in mortality of listed or sensitive bird species and this would be considered a significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a Utilize collision-reducing techniques in installation of transmission lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon juvenile tortoises as well as other wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the transmission facilities associated with the Harquahala Junction Switchyard Alternative will result in an increase in potential nesting sites for common ravens. An increase in the number of ravens nesting in tortoise habitat will likely result in an increase in predation on juvenile tortoises and potentially on other wildlife species (including sensitive and/or listed species). APM B-20 states that "all transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS Division of Law Enforcement to "take" common ravens or their nests." This APM partially reduces the impacts of common ravens on listed and sensitive wildlife species. However, the impacts may still remain significant if the various companies do not check the towers and remove nests on a regular basis and if the various companies remove other nests that are actively utilized by other raptors. An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a significant impact (Class II). Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a Prepare and implement a raven control plan.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the Harquahala Junction Switchyard Alternative will require regular maintenance of the various facilities associated with the alternative. Maintenance activities require the use of access and spur roads by vehicles and equipment. The operation and maintenance activities will be conducted at about the same frequency as currently exists for the DPV1 transmission line. SCE has indicated that vehicle speeds would be limited to a maximum of 25 mph in desert tortoise habitat (APM B-29). The implementation of this APM, and the approximate same level of use of the roads as currently exists for operation and maintenance activities, will result in a similar impact to what currently exists. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse, but less than significant (Class III).

D.2.7.4 Desert Southwest Transmission Project Alternative

Environmental Setting

Vegetation Communities and Wildlife

In general, the vegetation communities across the Desert Southwest Transmission Project Alternative are the same as those described in the Vegetation Overview (Section D.1.1.1) and in the descriptions for the Proposed Project segments from Midpoint Substation to Cactus City Rest Area (Section D.2.2.6) and from Cactus City Rest Area to Devers Substation (Section D.2.2.7). Between the Keim Substation and the Cactus City Rest Area, this alternative crosses through Sonoran creosote bush scrub and dry desert wash woodland. In addition, scattered desert dunes also occur as described in Section D.2.2.6. The areas where the route of this alternative differ from the Proposed Project occur where the construction of one double-circuit 500 kV line or two parallel 500 kV transmission lines will occur for 8.8 miles from Keim Substation to Midpoint Substation, and also where the three new substation/switching stations (Keim, Midpoint, and on Dillon Road) would be constructed. In addition, it also differs where the transmission line runs south along the I-10 west of Alligator Rock, and where the line would cross to the north side of I-10, approximately 2.5 miles east of the Cactus City rest area. The alternative would continue west adjacent to the existing DPV1 transmission line. Near the Keim Substation, this alternative crosses disturbed areas, agricultural lands, and the I-10 freeway. South of the I-10, the route of this alternative crosses through patches of agricultural lands within the broader expanse of creosote bush scrub located west of Blythe. The alternative locations for the Midpoint Substation and the Dillon Road Substation are also vegetated with Sonoran creosote bush scrub.

The vegetation in the area where this alternative would proceed north of Alligator Rock, along the south side of the I-10, and along the north side of I-10 (east of the Proposed Project crossing of the I-10), also consists of Sonoran creosote bush scrub and dry desert wash woodland. In general, the vegetation community in these portions of the alternative alignment exhibit somewhat of a sparser distribution of shrubs, a lower plant species diversity, a higher incidence of non-native plant species, and an increased level of human disturbance. The El Paso Natural Gas (EPNG) pipeline access road (Aztec Road) and various other dirt roads located on the north and south sides of I-10 provide access for off-highway vehicles and assorted human disturbances, such as trash dumping. This generally leads to a degradation of the vegetation communities as a result of direct impact to vegetation, deposition of trash, and introduction of non-native plant species. As this alternative turns southwest and proceeds toward the junction with the proposed DPV2 line, the level of disturbance within the vegetation communities decreases, and the plant diversity and density increases.

From Dillon Road west to Devers Substation, this alternative traverses through patches of stabilized desert sand fields, mesquite hummocks, stabilized sand fields, stabilized desert dunes, ephemeral sand fields, and Sonoran mixed woody and succulent scrub that are interspersed with areas of creosote bush scrub as described in Section (D.2.2.7). In addition, the line also crosses scattered agricultural areas, disturbed areas, and developed areas.

The wildlife species documented within the ROW for this alternative are the same as those described in Sections D.2.1.1.2 and D.2.2.7 for the Proposed Project. The agricultural and disturbed areas near the Keim Substation and in the areas just south of I-10 would be expected to support common wildlife species that are typically associated with urban and agricultural areas. The creosote bush scrub habitat between the agricultural areas south of I-10 and the alternative Midpoint Substation location supports the same wildlife species that occur along the route of the Proposed Project.

North of Alligator Rock and in areas adjacent to I-10, several factors may influence the abundance and diversity of wildlife species. The habitat in these areas displays a higher level of disturbance related to a higher abundance of non-native plant species, an increased level of humans and vehicles, and a higher level of noise related to vehicles on I-10. All of these factors negatively impact wildlife species and may lead to decreased abundance and diversity of wildlife species. In addition, roads that cross areas of wildlife habitat tend to act as a "sink" because there is a higher incidence of wildlife mortality related to vehicle use on the roads. This "sink" tends to reduce the numbers of individuals in wildlife populations close to the roads because animals residing in close proximity have a higher probability of mortality. The EPNG pipeline road (Aztec Road), the various dirt roads that runs on the north and south sides of I-10, and I-10 act as sinks on the north side of Alligator Rock and in the areas between Alligator Rock and the Cactus City Rest Area. As a result, the habitat in areas north of Alligator Rock and near I-10 likely have a lower abundance and diversity of wildlife species. However, as the route of the Desert Southwest Transmission Project Alternative approaches the junction with the proposed DPV2 Alternative, the wildlife habitat becomes less disturbed and more diverse. Therefore, the abundance and diversity of wildlife would be expected to increase nearer to the proposed DPV2 Alternative.

Special Status Plant and Wildlife Species

Plants. The locations of sensitive plant species observed, and the potential for other sensitive plants to occur, along the portions of this alternative that match the proposed DPV2 alignment were documented in Table D.2-10 in Section D.2.6.1.6. The potential for special status plant species to occur along the additional portions of the route and at the proposed Substation locations would be the same as those described in Table D.2-4 (sensitive plant table) in Section D.2.1.1.3.

Two sensitive plant species have been documented along the route of the Desert Southwest Transmission Line Alternative. Harwood's milkvetch was found to be relatively common during sensitive plant surveys conducted in 2005 (Tetra Tech). This species was found in relatively high numbers between the Keim Substation and approximately MM E119. It was also found in lower numbers between Wiley's Well Road (MM E123.7) and Graham Pass Road (MM E132). The foxtail cactus was observed in 2003 and 2005 (Environmental Planning Group, 2003 and 2005) from near Alligator Rock (MM E155) west to near Red Cloud Mine Road (approximately MM E163). It was also observed just east of Cactus City Rest Area, near MM E186, and the Cactus City Rest Area (MM E188.2).

Potential habitat for 10 additional sensitive plant species, including ayenia, crucifixion thorn, glandular ditaxis, California ditaxis, Orocopia sage, desert spike-moss, and Cove's cassia, Abram's spurge, Spearleaf, Latimer's woodland gilia, and Mecca-aster is present in the areas north of Alligator Rock and south of I-10 between Alligator Rock and Cactus City Rest Area. These species would not be expected to occur at the Keim Substation due to a lack of suitable habitat.

Between the Cactus City Rest Area and Devers Substation, one listed species Coachella Valley milkvetch is known to occur within the ROW for this alternative. Fifteen sensitive plant species have a high to moderate potential to occur in this segment of the Desert Southwest Transmission Project Alternative and at the site of the Dillon Road Substation. Some of these include Arizona spurge, flat-seeded spurge, California ditaxis, foxtail cactus, little San Bernardino Mountains gilia, slender woolly-heads, desert sand-parsley, Parish's brittlescale, Latimer's woodland gilia, purple stemodia, and Mecca-aster.

Wildlife. The potential for sensitive wildlife species to occur along this alternative would be similar to what was previously described for the Proposed Project in Sections D.2.1.1.2, D.2.2.6, and D.2.2.7. The known distributions where desert tortoise, loggerhead shrike, Le Conte's thrasher, and Mohave

fringe-toed lizard have been observed, and the potential for other sensitive wildlife species to occur along the portions of this alternative that match the alignment of the proposed DPV2 line are described in Sections D.2.2.6 (Midpoint Substation to Cactus City Rest Area) and D.2.2.7 (Cactus City Rest Area to Devers Substation). Because this alternative does not traverse the Colorado River and the agricultural areas in the Palo Verde Valley, the six listed bird species identified in that segment, California black rail, Yuma clapper rail, western yellow-billed cuckoo, elf owl, Gila woodpecker, and least Bell's vireo, would not be expected to occur. Other riparian or aquatic species including razorback sucker, vermillion flycatcher, Sonoran yellow warbler, summer tanager, peregrine falcon, willow flycatcher, southwestern willow flycatcher, white-faced ibis, brown-crested flycatcher, and yellow-breasted chat would not be expected to occur because suitable habitat is not present.

The Mojave fringe-toed lizard, loggerhead shrike, and Le Conte's thrasher have been documented at the Midpoint Substation alternative location, and the fringe-toed lizard has also been observed south of I-10 and the Keim Substation, along the north-south portion of the transmission line route. The desert tortoise also potentially occurs west of the agricultural and disturbed areas along the transmission line between the Keim and Midpoint Substations and at the Midpoint Substation. These species have a low potential to occur at the Keim Substation location due to the close proximity to disturbed and agricultural areas.

The alternative alignment north of Alligator Rock and along the south side of I-10 would be expected to support the same sensitive wildlife species that potentially occur in this segment of the proposed DPV2 line because suitable desert scrub habitat exists. However, because of the "sink" effect associated with the various access roads in the Alligator Rock area and along I-10, as described above, and because the habitat located in areas close to the I-10 is somewhat disturbed, the density of desert tortoise and other sensitive wildlife species would be expected to be lower in the areas north of Alligator Rock and nearer to I-10.

Two listed wildlife species (desert tortoise and Coachella Valley fringe-toed lizard) and one Federal Candidate for listing (Palm Springs round-tailed ground squirrel) are known to occur in the portion of the Desert Southwest Transmission Project Alternative between Cactus City Rest Area and Devers Substation. The desert tortoise was observed from near the Cactus City Rest Area (MP E188.2) west to almost MP E196 (Alice Karl and Associates, August 2005). In 2003, a desert tortoise location was reported near MP E198.6 (Environmental Planning Group, December 2003). This appears to be an isolated location because it is approximately 2.6 miles west of the furthest location detected in the 2005 surveys (Alice Karl and Associates, August 2005).

The Coachella Valley fringe-toed lizard is present within the various parcels that make up the Coachella Valley Preserve and it is likely present in other suitable habitat areas that occur within and adjacent to the ROW. The ROW crosses the Preserve between approximately MPs E209.9 and E212. Suitable blow sand areas, which are considered suitable habitat areas for this species, are located approximately between MPs E219.2 and E220 and MPs E224.5 and E225.2. The Palm Springs round-tailed ground squirrel is known to occur in the vicinity of the transmission line route along Dillon Road, north of I-10, and north of I-10 in the vicinity of Jefferson Street northwest of Indio (Environmental Planning Group, December 2003). Other populations are scattered around the valley from approximately 18 miles southeast of the City of Coachella, northwest to the east end of the San Gorgonio Pass area. Suitable habitat also occurs along much of the ROW from a point near Dillon Road north of the City of Coachella and west to Devers Substation (Environmental Planning Group, December 2003). All three potentially occur at the site of the Dillon Road Substation.

Two sensitive bird species, burrowing owl and California horned lark, have also been documented in this portion of the alternative and could potentially occur at the Dillon Road Substation. In addition, as described in Section D.2.2.7, 23 additional sensitive species could potentially occur in this segment because either suitable habitat is present or there has been a documented occurrence in the vicinity. Some of these include:

- Coachella Valley giant sand-treader cricket
- Coachella Valley Jerusalem cricket
- flat-tailed horned lizard
- Mojave fringe-toed lizard
- rosy boa
- northern red-diamond rattlesnake
- golden eagle
- ferruginous hawk
- Le Conte's thrasher
- mountain plover
- loggerhead shrike
- California leaf-nosed bat
- pallid bat
- Townsend's big-eared bat
- spotted bat
- fringed myotis
- western mastiff bat
- pocketed free-tailed bat
- big free-tailed bat
- San Diego black-tailed jackrabbit
- Palm Springs pocket mouse
- pallid San Diego pocket mouse
- Los Angeles pocket mouse
- American badger

The Desert Southwest Transmission Project Alternative would cross through the Chuckwalla Dune Thicket ACEC and Chuckwalla DWMA ACEC in the same or very similar locations as was described for the Proposed Project (Sections D.2.2.6, and D.2.2.7). In addition, this alternative would traverse through the same portion of designated Critical Habitat that was described for the Proposed Project (Sections D.2.2.6 and D.2.2.7).

Construction Impacts – Vegetation

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

The Desert Southwest Transmission Project Alternative would permanently remove Sonoran desert scrub and may potentially remove dry desert wash woodland vegetation at tower locations between the Keim Substation and the Devers Substation. In addition, Sonoran desert scrub would also be removed at the locations of the Midpoint and Dillon Road Substations. The Keim Substation does not support native vegetation communities. As stated for Impact B-1 in Section D.2.6.1.1, the vegetation will be permanently removed at the locations of the tower footings. In addition, the construction areas around the tower sites may be temporarily disturbed, depending on the amount of area necessary for ongoing maintenance.

The permanent loss and temporary disturbance of Sonoran desert scrub and dry desert wash woodland resulting from the construction in this alternative would result in significant impacts to native vegetation communities. Loss of Sonoran desert scrub habitat would be considered a significant impact (Class II). Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) shall be implemented by the SCE to reduce impacts to less than significant levels.

Mitigation Measure for Impact B-1: Construction activities would permanently remove native vegetation

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Impact B-2: Construction activities would result in the introduction invasive non-native or noxious plant species (Class II)

Construction impacts along the entire length of the Desert Southwest Transmission Project Alternative, along the transmission line between the Keim and Midpoint Substations, and at the Midpoint and Dillon Road Substations would temporarily remove Sonoran desert scrub vegetation at the construction sites located adjacent to each tower. Introduction of invasive non-native or noxious plant species would occur primarily during construction, but would also continue to occur during operation and maintenance phases of the alternative. The introduction of invasive non-native or noxious weeds would be related to the use of vehicles, construction equipment, or earth materials contaminated with non-native plant seed, use of straw bales or wattles that contain seeds of non-native plant species, and enhanced public access to the project corridor during and after construction.

To reduce the potential for the introduction of noxious weeds, SCE would implement APM B-2 (Standard Noxious Weed BMPs) and B-11, which would require hand clearing of vegetation in certain areas located along the ROW. This APM would facilitate the maintenance of existing root systems which may help to stabilize the soils against erosion and assist in the restoration of these areas if the plants resprout at the conclusion of project activities. SCE would also implement APM B-19, which would require the restoration of disturbed areas at the conclusion of construction. However, SCE has not indicated which areas would be subject to hand clearing or restoration at this time. The introduction of non-native plant species would be considered a significant impact (Class II). Implementation of the Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-2a (Conduct invasive and noxious weed inventory), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-2a Conduct invasive and noxious weed inventory.

B-2b Implement control measures for invasive and noxious weeds.

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. Increased levels of dust on the leaves of plants can decrease the photosynthetic capabilities of the plants. SCE would implement Title 1 measures (Air Quality) to decrease fugitive dust including reduced vehicle speeds, use of tackifiers, and periodic watering of the ROW. Watering will be done in such a way as to prevent pooling of water on the soil surface so that toad species would not be stimulated to emerge from their subsoil aestivation burrows prior to natural rain events. With the implementation of Title 1 rules the potential impacts of increased dust settling on plants is expected to be adverse but not significant (Class III).

Impacts and Mitigation Measures – Wildlife

Direct impacts on wildlife would be similar to those described in Section D.2.6.1.4 of the Proposed Project.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

The direct loss of small mammals, reptiles, and other less mobile species would likely occur in the undeveloped areas along the length of the Desert Southwest Transmission Project Alternative and at the Midpoint and Dillon Road Substations. The loss of vegetation would also result in the temporary loss of breeding and foraging habitat for wildlife.

Wildlife species are most vulnerable to construction-related disturbances during their breeding seasons. Disturbances from construction could result in nest, roost, or territory abandonment and subsequent reproductive failure if these disturbances were to occur during an affected species' breeding season.

A large part of the alternative would be constructed adjacent to the existing utility ROW and within or immediately adjacent to existing maintained road easements. Most of the wildlife expected to be impacted by construction in these disturbed easements is composed of common, wide-ranging species. Due to the narrow area of disturbance along this alternative and the short duration of disturbance, most of the more common wildlife species found along the route are expected to quickly recolonize the corridor after construction and subsequent revegetation work is completed. Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on wildlife from construction would generate potentially adverse but less than significant impacts (Class III). Impacts from construction on listed and candidate wildlife species are discussed separately under Threatened or Endangered Wildlife.

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

As described in Section 2.6.1.5 ground-disturbing activity, including tower pad preparation and construction and grading of new access roads, has the potential to disturb vegetation utilized by nesting birds. The removal of habitat during the breeding season would likely result in the displacement of breeding birds and the abandonment of active nests. Implementation of Mitigation Measure B-5a would reduce impacts to nesting birds to less than significant levels (Class II).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

Impacts and Mitigation Measures – Threatened or Endangered Plant or Wildlife Species

Construction impacts for threatened and endangered species would be same as described for vegetation and wildlife in Section D.2.6.1.6.

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class II)

Threatened or Endangered Plants. The loss of individuals or known habitats of threatened, or endangered plant species would be considered a significant impact without mitigation. One listed plant species, the Coachella Valley milkvetch, is known to occur near Devers Substation and within western portion of the ROW of the Desert Southwest Transmission Line Alternative. This species potentially occurs between the Dillon Road Substation and Devers Substation. No other State or federally listed, endangered, or threatened plant species have been identified as occurring within this alternative and none are expected

to occur. This alternative alignment either does not contain suitable habitat for any other listed plants or it is located outside the geographical range for any of the listed plant species that were identified as having a high or moderate potential to occur (Table D.2-4). Impacts to sensitive plant species would be potentially significant, but would be reduced to less than significant levels (Class II) through the implementation of APMs and Mitigation Measure B-6a (Develop a transplanting plan).

Mitigation Measure for Impact B-6: Construction activities would result in indirect or direct loss of listed plants

B-6a Develop a transplanting plan.

Threatened or Endangered Wildlife

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

The Desert Southwest Transmission Project Alternative contains Sonoran desert scrub habitat that is known to support desert tortoise, a federal- and State-listed threatened species, and sand dune habitats that are known to support Coachella Valley fringe-toed lizard, a federal threatened and State endangered species. In addition, this alternative also contains desert scrub, desert wash, and succulent desert scrub habitats that are known to support the Palm Springs round-tailed ground squirrel, a Federal Candidate for listing. As described in Section D.2.7.4 of the Environmental Setting, with the exception of the desert tortoise, Coachella Valley fringe-toed lizard, and Palm Springs round-tailed ground squirrel, no other listed or candidate wildlife specie were identified with the potential to occur along the route of this alternative.

Fish. This alternative does not contain standing water and the area does support populations of rare fish. Impacts to sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. There is no indication that listed amphibian species occur along the alignment for this alternative. This portion of the Project does not fall within the range nor does it support the appropriate habitat requirements of any listed amphibian species that were determined to have a high or moderate potential to occur. Impacts to sensitive amphibians would be considered less than significant (Class III) and no additional mitigation is proposed.

Reptiles.

Desert Tortoise. Construction activities conducted in this alternative could result in impacts to populations of desert tortoise. This segment is located in Sonoran desert scrub habitat that is within the known geographic range of this species. Occupied habitat generally occurs from the eastern portion of this segment (MM E133) and extends to the Cactus City Rest Area (MM E188.2). Surveys conducted in this segment indicate the highest density of tortoises appears to be located between MMs E151 and E196. This area encompasses a section of the route near Alligator Rock (approximately MM E155) that traverses near the foothills of the Chuckwalla Mountains. Surveys in this area found a high incidence of both tortoise and tortoise sign. Desert scrub and dry desert wash habitats located east of MM E133 are considered potential habitat for tortoise even though this species was not observed during previous surveys.

Construction activities that affect the Sonoran Desert tortoise would be similar to the Proposed Project. Construction of this alternative would also result in impacts to designated critical habitat for the desert

tortoise. The ROW would pass through designated critical habitat from just east of Wiley's Well Road (MM E121.7) to just east of the Cactus City Rest Area (MM 188.2). Impacts to designated critical habitat would include the permanent removal of habitat resulting from construction of the 97 towers and from construction of access and spur roads. Temporary impacts to designated critical habitat would also occur as a result of the establishment of laydown/staging areas, construction disturbance around the bases of the 97 towers, and construction of temporary access roads. The impacts resulting from the construction of this segment would result in significant impacts on designated critical habitat for the desert tortoise (Class II).

Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to desert tortoise would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Tortoise)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-7b Conduct pre-construction tortoise surveys.

B-7c Purchase mitigation lands for impacts to tortoise habitat.

Coachella Valley Fringe-Toed Lizard. Construction activities conducted in this alternative could result in impacts to populations of Coachella Valley fringe-toed lizard a State endangered and federally threatened species. This species occurs in the Coachella Valley Preserve and in some of the sand dunes and blow sands areas located in the undeveloped portions of Coachella Valley. Surveys conducted in 2005 identified suitable blow sand habitat areas within the ROW of the Proposed Project approximately between MMs E219.2 and E220 and MMs E224.5 and E225.2 (Greystone, 2005). This species also likely occurs in suitable blow sand areas that occur adjacent to the ROW for the Proposed Project. Construction in areas adjacent to blow sand habitat may also impact habitat for the Coachella Valley fringe-toed lizard by creating barriers to the movement of sands. To reduce potential impacts to this species SCE would implement APMs B-26, B-33, B-34, and B-36 which specifically address the Coachella Valley fringe-toed lizard and its habitat. In addition to the APMs proposed by SCE, implementation of Mitigation Measure B-7d (Purchase mitigation lands for impacts to fringe-toed lizard habitat) would reduce potential impacts to the Coachella Valley fringe-toed lizard to less than significant levels.

Mitigation Measure for Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Coachella Valley fringe-toed lizard)

B-7d Purchase mitigation lands for impacts to fringe-toed lizard habitat.

Critical Habitat. Construction of Desert Southwest Transmission Project Alternative would also result in impacts to designated critical habitat for the Coachella Valley fringe-toed lizard. The ROW contains designated critical habitat for the Coachella Valley fringe-toed lizard between MMs E209.3 and E215.

Impacts to designated critical habitat would include the permanent removal of habitat resulting from construction of towers, access, and spur roads. APM B-19 would provide some restoration to areas disturbed by project activities located within designated critical habitat however this measure would not fully mitigate potential loss of habitat or modifications to designated critical habitat. In addition, APM B-34 also provides for restoration of compacted soils within the Coachella Valley Preserve, which is designated critical habitat for this species. This measure would partially address impacts to critical habitat but it would not fully mitigate for the impacts. Therefore, the impacts resulting from the construction of this segment of the Desert Southwest Transmission Project Alternative would result in significant impacts on designated critical habitat for the Coachella Valley fringe-toed lizard (Class II). Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) and B-7d (Purchase mitigation lands for impacts to fringe-toed lizard habitat), would reduce impacts to less than significant levels.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Critical Habitat)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-7d Purchase mitigation lands for impacts to fringe-toed lizard habitat.

Birds. Listed bird species have not been documented in this segment of the Desert Southwest Transmission Line Alternative. Construction activities associated with this alternative are not expected top result in impacts to sensitive birds (Class III).

Mammals. Similar to the Proposed Project there is no indication that listed mammals occur in the Desert Southwest Transmission Line Alternative. Construction activities associated with this alternative are not expected top result in impacts to listed mammals (Class III).

State or Federal Species of Special Concern

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class II)

Plants. Habitat in this alternative is similar to that described in Section D.2.6.1.6 and supports several sensitive plant species including foxtail cactus a federal species of special concern and CNPS List 1b plants such as Harwood's milkvetch, Latimer's woodland gilia, and Mecca aster.

Some of the other species that may occur in this segment include:

- Ayenia
- crucifixion thorn
- glandular ditaxis
- California ditaxis
- Orocopia sage
- desert spike-moss
- Cove's cassia
- Abram's spurge
- Spearleaf
- Arizona spurge
- flat-seeded spurge
- cliff spurge
- little San Bernardino Mountains gilia
- creamy blazing star
- slender woolly-heads
- chaparral sand-verbena
- angel trumpets
- desert sand-parsley
- Parish's brittlescale
- purple stemodia

Construction of towers and access/spur roads would result in the permanent loss of habitat for these sensitive species and may result in a loss of individual plants. Establishment of staging or laydown areas would also result in temporary impacts to habitat for rare plants.

To reduce potential impacts to sensitive plants SCE would implement APM B-8 (Pre-construction Surveys) and APM B-9 (Transplant Sensitive Cactus), which provides for detailed surveys of tower locations prior to construction. Although impacts would remain potentially significant, SCE would also implement the following mitigation measure to reduce these impacts to a less than significant level: Mitigation Measure B-8a (Conduct surveys for listed plant species).

Mitigation Measure for Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plant species.

B-8a Conduct surveys for listed plant species.

Wildlife

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates. Construction of the portion of the Desert Southwest Transmission Project Alternative would result in the temporary and permanent removal of suitable habitat for Coachella Valley giant sand-treader cricket and Coachella Valley Jerusalem cricket between the Dillon Road Substation and Devers Substation. As described in the Environmental Setting (Section D.2.2), these two species potentially occur in dune habitats and ephemeral sand fields in the Coachella Valley. These two species do not have any State or federal sensitive designations but they are covered species under the Draft Coachella Valley MSHCP. If the Draft MSHCP is not finalized, then impacts to these species would not be significant and would not require mitigation. If the Draft MSHCP is finalized, then mitigation will be required to avoid significant impacts (Class II) resulting from temporary and permanent loss of habitat for these species. Mitigation would include conducting focused surveys for these species prior to construction to determine presence or absence and biological monitoring during construction. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-9a (Conduct pre-construction surveys), and B-9b (Conduct biological monitoring) would reduce the impacts to sensitive invertebrates, if present, to less than significant.

Fish. This segment does not contain standing water and the area does support populations of rare fish. Impacts sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. Only one species of sensitive amphibian, the Couch's Spadefoot toad, potentially occurs along the route of the Desert Southwest Transmission Line Alternative. No other sensitive amphibians would be expected to occur because the habitats along the route are not suitable. Construction of the transmission line from the Keim Substation to the Midpoint Substation, construction of the Midpoint Substation, and construction of a portion of the Desert Southwest Transmission Project Alternative west of the Midpoint Substation would result in the permanent removal of suitable habitat for Couch's spadefoot toad. Temporary loss of potential habitat would also occur as a result of construction impacts around tower locations and at laydown/staging areas. This permanent and temporary loss of habitat and potentially the loss of individuals would be considered a significant impact (Class II). Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-9a

(Conduct pre-construction surveys), and B-9b (Conduct biological monitoring) would reduce the impacts to sensitive amphibians, if present, to less than significant.

Reptiles. Construction of the Desert Southwest Transmission Project Alternative would result in potential impacts to flat-tailed horned lizard, Mojave fringe-toed lizard, Colorado Desert fringe-toed lizard, banded Gila monster, rosy boa, and northern red diamond rattlesnake. The Mojave fringe-toed lizard has been documented at the Midpoint Substation Alternative location and south of the I-10 and the Keim Substation, along the north-south portion of the route of the transmission line. The Colorado Desert fringe-toed lizard and banded Gila monster have a potential to occur in the eastern portion of this route while the other sensitive species have the potential to occur in the suitable desert scrub habitat throughout the remainder of this alternative. The temporary and permanent loss of habitat and potentially the loss of individuals of these species would be considered a significant impact (Class II). Implementation of APMs and Mitigation Measures B-9b (Conduct biological monitoring) and B-9d (Conduct pre-construction reptile surveys) would reduce potential impacts to sensitive reptiles to less than significant levels.

Birds. Construction of this alternative would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat and disturbance related to construction activities. Construction activities and the increased presence of humans may result in direct or indirect impacts to burrowing owls and other sensitive birds that potentially occur in the vicinity. Construction activities could result in direct displacement of breeding owls and abandonment of nesting burrows. The displacement of burrowing owls from resident burrows would be considered a significant impact (Class II). Construction of the Midpoint Substation would result in the permanent removal of 44 acres and temporary removal of 5 acres of suitable desert scrub habitat utilized by Le Conte's thrasher, Bendire's thrasher, mountain plover, loggerhead shrike, and ferruginous hawk (foraging habitat). This temporary and permanent loss of potential habitat would be considered a significant impact (Class II). Implementation of APMs and Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/ Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), and B-9e (Conduct pre-construction surveys and owl relocation) would reduce impacts to sensitive birds to less than significant levels.

Mammals. Habitat located along this alternative is largely the same as described for the Proposed Project and may support a variety of sensitive species. Some of species with a moderate to high potential to occur along this alternative include:

- California Leaf-Nosed Bat
- Pallid Bat
- Townsend's Big-Eared Bat
- Spotted Bat
- Yellow Bat
- Arizona Myotis
- Fringed Myotis
- Cave Myotis
- Yuma Myotis
- Western Mastiff Bat
- Pocketed Free-Tailed Bat
- Big Free-Tailed Bat
- Los Angeles Pocket Mouse
- San Diego Pocket Mouse
- Palm Springs Pocket Mouse
- Pallid San Diego Pocket Mouse
- American Badger
- Yuma Mountain Lion
- Nelson's Bighorn Sheep

Disturbance to habitat would be similar to that described for the listed species. Construction activities would result in the removal of habitat that could support populations of these species. The loss of this habitat could affect foraging opportunities for small rodents, bats, and the Yuma mountain lion. However,

many of these species are wide ranging and forage across a large geographic area. The habitat along the length of this alternative, from the I-10 south of the Keim Substation to the Midpoint Substation, and at the locations of the Midpoint Substation and Dillon Road Substation is considered suitable habitat for these species, although these species have not been observed during surveys of the site.

Construction-related impacts to bat species could potentially occur in the hilly regions of the Chuckwalla Mountains. No roosting or hibernacula sites have been identified in this area and construction would be limited to daylight hours. Pallid bats, which forage exclusively on the ground, could be impacted by night time travel on the existing access roads. These species are also very susceptible to disturbance and even hiking can result in the abandonment of roosts (Pierson and Brown, 1992). The permanent and temporary loss of habitat and potentially the loss of individuals would be considered a significant impact (Class II). Mitigation Measure B-9h (Conduct pre-construction surveys for roosting bats) would be implemented to reduce impacts to a less than significant level. Impacts to American badger and bighorn sheep are addressed in Section D.2.6.1.8

Construction of this alternative would also directly impact suitable habitat for the Coachella Valley round-tailed ground squirrel, a State species of special concern. This species is known to occur in the vicinity of near Dillon Road and northwest of Indio. Other populations are scattered around the Coachella Valley. Suitable habitat occurs in the ROW from a point near Dillon Road, north of the town of Coachella, and west to the Devers Substation. Construction activities would potentially result in permanent removal of suitable habitat for this species. In addition, temporary removal of potentially suitable habitat will also occur at the construction areas around each of the towers, the laydown/staging areas, and along temporary access/spur roads. Indirect impacts to this species may occur from the presence of humans and construction vehicles and equipment and from the increased level of traffic on the access roads. APM B-25 addresses the avoidance of mesquite hummock habitat for the purpose of benefiting the Coachella Valley round-tailed squirrel. If the species is present, temporary and permanent impacts to habitat for the Coachella Valley round-tailed squirrel would be considered significant (Class II). In addition to the APMs proposed by SCE, Mitigation Measures B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce impacts to the Coachella Valley round-tailed squirrel to less than significant levels.

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

B-9a Conduct pre-construction surveys.

B-9b Conduct biological monitoring.

B-9d Conduct pre-construction reptile surveys.

B-9e Conduct pre-construction surveys and owl relocation.

B-9h Conduct pre-construction surveys for roosting bats.

B-9i Schedule construction when the Coachella Valley round-tailed squirrel is dormant.

State and Federal Jurisdictional Habitats

Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands (Class II)

Although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are located along the length of the Desert Southwest Transmission Line Alternative. In addition, jurisdictional drainages and intermittent creeks were noted throughout the western portion of the Proposed Project. Although construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats), the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Therefore, any impact to jurisdictional waterways would be significant (Class II). Impacts to jurisdictional waters and wetlands would be reduced to less than significant levels with the implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/ Compensation Plan).

Mitigation Measure for Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan

Wildlife Corridors and Nursery Sites

Impact B-11: The alternative would adversely affect the movement of fish, wildlife movement corridors, or native wildlife nursery sites (No Impact)

The majority of the drainages located along the Desert Southwest Transmission Project Alternative consist of desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events. Subsequently, most of the washes do not contain perennial flows and are not expected to support fish and other species that are dependent on permanent water sources. There are no known native wildlife nursery sites along the route of this alternative. Therefore, no impacts would be expected to the movement of fish and other species that are dependent upon water sources and no are expected to native wildlife nursery sites.

Impact B-12: The alternative would adversely affect linkages and wildlife movement corridors (No Impact)

Linkages and corridors facilitate regional animal movement, and are generally centered on waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Construction of this alternative is not expected to impact any linkages or wildlife movement corridors between the Keim Substation and Devers Substation because no major linkages or corridors are present.

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (No Impact)

The Desert Southwest Transmission Line Alternative, as an individual section of the project, would traverse BLM land, the City of Blythe, and portions of unincorporated Riverside County. Plans developed by these jurisdictions, including the CDCA Plan, City of Blythe General Plan, Riverside County Com-

prehensive General Plan, and several Riverside County Area Plans, were assessed to determine if any biological resources policies would apply to the construction and operation of this alternative. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with this alternative and identified those policies that required further evaluation in this EIR/EIS. Table D.2-12 in Section D.6.2.1.11 discusses those policies from the aforementioned plans that required further analysis. The Desert Southwest Transmission Project Alternative would not conflict with any of these policies.

Operational Impacts

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Impacts to birds would be the same as described for the Proposed Project. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV; as such "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in line collisions by listed bird species (Class II)

Bird collisions would be similar to the Proposed Project. It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the vicinity of the alternative. These data are not available for the alternative transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest, such as along waterways or over adjacent agricultural areas like those in the Palo Verde Valley. The operation of the Desert Southwest Transmission Project Alternative may result in mortality of listed or sensitive bird species and this would be considered a significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a Utilize collision-reducing techniques in installation of transmission lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the transmission facilities associated with the Desert Southwest Transmission Project Alternative will result in an increase in potential nesting sites for common ravens. APM B-20 states that "all transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS Division of Law Enforcement to "take" common ravens or their nests." This APM partially reduces the impacts of common ravens on listed and sensitive wildlife species. However, the impacts may still remain significant if the various companies do not check the towers and remove nests on a

regular basis and if the various companies remove other nests that are actively utilized by other raptors. An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a significant impact (Class II). Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a Prepare and implement a raven control plan.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the Desert Southwest Transmission Project Alternative will require regular maintenance of the various facilities associated with the alternative. Maintenance activities require the use of access and spur roads by vehicles and equipment. SCE has indicated that vehicle speeds would be limited to a maximum of 25 mph in desert tortoise habitat (APM B-29). The implementation of this APM, and the approximate same level of use of the roads as currently exists for operation and maintenance activities, will result in a similar impact to what currently exists. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse, but less than significant (Class III).

D.2.7.5 Alligator Rock–North of Desert Center Alternative

Environmental Setting

Regional Setting. The regional setting for this alternative would be the same as that described for the Proposed Project in Section D.2.2.7 Cactus City Rest Area to Devers Substation.

Vegetation Communities and Wildlife. The Alligator Rock–North of Desert Center Alternative is 1.2 miles longer than the proposed route, which would increase the length and intensity of short-term construction impacts and ground disturbance to native plant communities and wildlife. This alternative would establish a new transmission line corridor and would require considerable upgrading and construction of new roads, as opposed to the Proposed Project, which would use existing access for construction and maintenance along the DPV1/DPV2 corridor.

In general, the vegetation communities across this alternative are the same as those described in the Vegetation Overview (Section D.2.1.1.1) and in the descriptions for the Proposed Project segments from Midpoint Substation to Cactus City Rest Area (Section D.2.2.6). The vegetation east of Alligator Rock, east of the developed and disturbed areas associated with Desert Center, and north of the I-10 and west of Desert Center consists of consists of Sonoran creosote bush scrub and dry desert wash woodland. The presence of Desert Center and the numerous roads that provide access into the undeveloped areas around Desert Center and along the north side of the I-10 (Ragsdale Road) has resulted in a degradation of the vegetation communities in and around Desert Center and in areas adjacent to the north side of I-10. The native vegetation communities in these areas exhibit a higher level of damage from off-highway vehicle use and trash dumping and a higher density of non-native plant species.

The wildlife species documented within the ROW for this alternative are similar to those described in Section D.2.1.1.2 for the Proposed Project and Section 2.7.4 for the Desert Southwest Transmission Line Alternative. However, the high level of disturbance (related to off-highway vehicle use, trash

dumping, and the presence of roads) in the wildlife habitats around Desert Center and along the north side of the I-10 freeway would be expected to reduce the density and diversity of wildlife species below what would be present in undisturbed habitat areas located further from developed areas.

Special Status Plant and Wildlife Species. Focused sensitive plant surveys have not been conducted in the ROW for this alternative, but the potential for special status plant species to occur in the native vegetation communities located within and adjacent to the ROW for this alternative is the same as what was described for the Midpoint Substation to Cactus City Rest Area segment of the Proposed Project (Section 2.2.6). No listed plant species have been observed or would be expected to occur along this alternative. However, one sensitive plant species, the foxtail cactus, has been observed south of I-10 near Alligator Rock during surveys of the Proposed Project alignment conducted in 2003 and 2005 (Environmental Planning Group, 2003 and 2005). This species is known to occur from near Alligator Rock (MM E155) west to near Red Cloud Mine Road (approximately MM E163). It was also observed between where the ROW crosses the I-10 freeway east of Cactus City Rest Area near MM E186 and the Cactus City Rest Area MM E188.2. Potential habitat for 11 other sensitive plant species is present in the Sonoran desert scrub and desert wash scrub located east of Alligator Rock and in the areas located north of I-10 around Desert Center. Some of the species include desert spike-moss, Cove's cassia, Abram's spurge, Spearleaf, Latimer's woodland gilia, and Mecca aster.

Focused protocol surveys for desert tortoise have not been conducted along this alternative where it diverges from the Proposed Project alignment and proceeds north around the Desert Center and proceeds along the north side of the I-10. Because the wildlife habitat in the undeveloped and undisturbed portions of this alternative is contiguous with other areas that do support desert tortoise, this listed species would be expected to occur. No other listed species of wildlife would be expected to occur north of Desert Center because suitable habitat is not present or because the area does not fall within the range of any other listed wildlife. One Federal Candidate, the Coachella Valley round-tailed squirrel, is known to occur just west of Cactus City Rest Area and potentially occurs in the western portion of this alternative. Three other sensitive species, Le Conte's Thrasher, loggerhead shrike, and prairie falcon have been observed south of the I-10 near Alligator Rock and would be expected to occur in the areas north of the I-10 and Desert Center. The following 19 sensitive wildlife species also have a potential to occur because either suitable habitat is present or the species has been observed in the vicinity of this alternative.

- Mojave fringe-toed lizard
- Colorado Desert fringe-toed lizard
- rosy boa
- flat-tailed horned lizard
- ferruginous hawk
- Bendire's thrasher
- Crissal thrasher
- mountain plover
- pallid bat
- western mastiff bat
- pocketed free-tailed bat
- California leaf-nosed bat
- Townsend's big-eared bat
- spotted bat
- Arizona myotis
- fringed myotis
- cave myotis
- big free-tailed bat
- American badger

However, this area is considered a potential "sink" as previously described for the Desert Southwest Transmission Line Alternative, and because the habitats located in the area close to the I-10 and Desert Center are somewhat disturbed, the density of desert tortoise and other sensitive wildlife species would be expected to be lower.

This alternative would not be located within the Chuckwalla DWMA ACEC from where the alternative crosses north of I-10 on the east side of Desert Center, to approximately one mile west of Desert Center. In the areas where this alternative does cross the Chuckwalla DWMA ACEC, the description of the locations of the DWMA would be similar to what was described for the Proposed Project (Sections D.2.1.1.4). In addition, this alternative would traverse through designated Critical Habitat for the desert tortoise in the areas east and west of Desert Center. Critical Habitat does not include the areas north of I-10, which are located approximately one mile east and one mile west of Desert Center.

Impacts and Mitigation Measures – Vegetation

The types of construction impacts that would occur with this alternative would be the same as those described for the Proposed Action in Section D.2.6.1.

Construction Impacts

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

The Alligator Rock–North of Desert Center Alternative would remove Sonoran desert scrub and may potentially remove dry desert wash woodland vegetation at the tower locations between where this alternative diverges from the Proposed Project alignment east of Alligator Rock to where it again converges east of Desert Center. As stated for Impact B-1 in Section 2.6.1.1, the vegetation will be permanently removed at the locations of the tower footings. In addition, the construction areas around the tower sites may be temporarily disturbed, depending on the amount of area necessary for ongoing maintenance. Because this alternative is 1.2 miles longer than the alignment of the Proposed Project around Alligator Rock, and because this alternative would require the construction of new access roads, this alternative will potentially remove more native vegetation that the Proposed Project. However, due to the higher level of human disturbance north of Desert Center and north of the I-10, the quality of the habitat that would be removed as a result of this alternative less than the habitat along the alignment of the Proposed Project around Alligator Rock. The permanent loss and temporary disturbance of Sonoran desert scrub and dry desert wash woodland resulting from the construction of this alternative would result in significant impacts to native vegetation communities. Loss of Sonoran desert scrub habitat would be considered a significant impact (Class II). Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) would be implemented by the SCE to reduce impacts to less than significant levels.

Mitigation Measure for Impact B-1: Construction activities would permanently remove native vegetation

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Impact B-2: Construction activities would result in the introduction invasive non-native or noxious plant species (Class II)

Construction impacts along the entire length of this alternative would be the same as described in Section D.2.6.5.1. To reduce the potential for the introduction of invasive non-native or noxious weeds, SCE would implement APM B-2 (Standard Noxious Weed BMPs) and B-11, which would require hand clearing of vegetation in certain areas located along the ROW. This APM would facilitate the maintenance of existing root systems which may help to stabilize the soils against erosion and assist in the restoration of these areas if the plants resprout at the conclusion of project activities. SCE would also implement APM B-19, which would require the restoration of disturbed areas at the conclusion of construction. However, SCE has not indicated which areas would be subject to hand clearing or restoration

at this time. The introduction of non-native plant species would be considered a significant impact (Class II). Implementation of the Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-2a (Conduct invasive and noxious weed inventory), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-2a Conduct invasive and noxious weed inventory.

B-2b Implement control measures for invasive and noxious weeds.

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. Increased levels of dust on the leaves of plants can decrease the photosynthetic capabilities of the plants. SCE would implement Title 1 measures (Air Quality) to decrease fugitive dust including reduced vehicle speeds, use of tackifiers, and periodic watering of the ROW. Watering will be done in such a way as to prevent pooling of water on the soil surface so that toad species would not be stimulated to emerge from their subsoil aestivation burrows prior to natural rain events. With the implementation of Title 1 rules the potential impacts of increased dust settling on plants is expected to be adverse but not significant (Class III).

Impacts and Mitigation Measures – Wildlife

Direct impacts on wildlife would be similar to those described in Section D.2.6.1.4.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

The direct loss of small mammals, reptiles, and other less mobile species would likely occur in the undeveloped areas along the length of this alternative. The loss of vegetation would also result in the temporary loss of breeding and foraging habitat for wildlife. Impacts from vehicle traffic and construction-related activities are the same as described in Section 2.6.1.4.

Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on common wildlife from construction would generate potentially adverse but not significant impacts (Class III).

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

As described in Section 2.6.1.5 ground-disturbing activity, including tower pad preparation and construction and grading of new access roads has the potential to disturb vegetation utilized by nesting birds. The removal of habitat during the breeding season would likely result in the displacement of breeding birds and the abandonment of active nests. Impacts would be potentially significant, but would be reduced to less than significant levels (Class II) with implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

Impacts and Mitigation Measures – Threatened or Endangered Plant or Wildlife Species

Construction impacts for threatened and endangered species would be same as described for vegetation and wildlife in Section D.2.6.1.6.

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class III)

The loss of individuals or known habitats of threatened, or endangered plant species would be considered a significant impact without mitigation. No State or federally listed, endangered, or threatened plant species have been identified as occurring within this alternative and none are expected to occur. This alternative alignment either does not contain suitable habitat for any other listed plants or it is located outside the geographical range for any of the listed plant species that were identified as having a high or moderate potential to occur in Table D.2-4. These species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Implementation of APM B-8 (Pre-construction Surveys for Rare Plants) would minimize potential impacts to listed plants (Class III).

Threatened or Endangered Wildlife

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

The Alligator Rock–North of Desert Center Alternative contains Sonoran desert scrub habitat that is likely to support desert tortoise, a federal and State threatened species. Even though focused protocol surveys have not been conducted for this species in areas north of Desert Center, this species likely occurs in the native habitats that occur along this alternative route. In addition, this alternative also contains desert scrub, desert wash, and succulent desert scrub habitats that could potentially support the Coachella Valley round-tailed ground squirrel, a Federal Candidate for listing. Impacts to round-tailed squirrel are discussed under sensitive wildlife. As described in Section 2.7.5, with the exception of the desert tortoise and Coachella Valley round-tailed ground squirrel, no other listed or candidate wildlife specie were identified with the potential to occur along the route of this alternative.

Fish. This alternative does not contain standing water and the area does support populations of rare fish. Impacts to sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. No listed amphibian species have a potential to occur along the alignment for this alternative. This portion of the Project does not fall within the range nor does it support the appropriate habitat requirements of any listed amphibian species that were determined to have a high or moderate potential to occur. Impacts to sensitive amphibians would be considered less than significant (Class III) and no additional mitigation is proposed.

Reptiles. Construction activities conducted in this alternative could result in impacts to populations of desert tortoise. This segment is located in Sonoran desert scrub habitat that is within the known geographic range of this species. This area encompasses a section of the route near Alligator Rock

(approximately MM E155) that traverses near the foothills of the Chuckwalla Mountains. Desert scrub and dry desert wash habitats located east of MM E133 are considered potential habitat for tortoise even though this species was not observed during previous surveys.

This alternative is 1.2 miles longer than the Proposed Project. The alignment around Alligator Rock would require the construction of access roads associated with placement of a new transmission line through relatively disturbed desert scrub habitat in areas or low tortoise densities. Construction of this alternative may impact more tortoise habitat than the Proposed Project alignment; however, the overall quality of the habitat is poor. Notwithstanding that fact the take of desert tortoises whether it results from direct or indirect impacts would be considered a significant impact (Class II).

Construction of this alternative would also impact designated critical habitat for the desert tortoise. The ROW would pass through designated critical habitat from where it diverges from the Proposed Project alignment east of Alligator Rock to where it again converges east of Desert Center. Construction of this alternative would result in a reduction of potential impacts to designated Critical Habitat when compared to the Proposed Project. Impacts to designated critical habitat would be similar to that described for the Proposed Project.

Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to desert tortoise would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Tortoise)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-7b Conduct pre-construction tortoise surveys.

B-7c Purchase mitigation lands for impacts to tortoise habitat.

Birds. Listed bird species have not been documented in this segment. Construction activities associated with the Proposed Project are not expected top result in impacts to these species (Class III).

Mammals. There is no indication that listed mammal species occur in this alternative. The Palm Springs round-tailed ground squirrel, a Federal Candidate for listing is likely to occur. Impacts to round-tailed squirrel are discussed under sensitive wildlife.

State or Federal Species of Special Concern

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class II)

Plants. Habitat in the Alligator Rock–North of Desert Center Alternative supports several sensitive plant species including foxtail cactus a federal species of special concern and four CNPS List 1B plants

including Harwood's milkvetch, Orocopia sage, Latimer's woodland gilia, and Mecca aster. Construction of this segment could result in direct impacts to both Harwood's milkvetch and foxtail cactus. Harwood's milkvetch occurs between the Midpoint Substation and MM E119. Populations of foxtail cactus have been documented to occur from Alligator Rock (MM E155) west to Red Cloud Mine Road (MM approximately MM E163) and between MM E186, near the I-10 crossing, and Cactus City Rest Area (MM E188.2).

Several other plants considered rare or unique by the CNPS (List 2-4) also occur in this area and may be subject to disturbance from construction activities. Some of these species include desert sand parsley, ayenia, crucifixion thorn, glandular ditaxis, and California ditaxis. Desert spike-moss and Cove's cassia may also be present. Construction of towers and access/spur roads would result in the permanent loss of habitat for these sensitive species and may result in a loss of individual plants. Establishment of staging or laydown areas would also result in temporary impacts to habitat for rare plants.

Because the length of this alternative is longer than the alignment for the Proposed Project, impacts to sensitive plant species may be greater than the Proposed Project. However, the disturbed nature of the vegetation communities near Desert Center and along the north side of I-10 may have a lower potential for these species to occur along the alignment. If present, impacts to these sensitive plant species would be considered significant (Class II).

As described in Section D.2.6.1.7 to reduce potential impacts to sensitive plants SCE would implement APM B-8 (Pre-construction Surveys) and APM B-9 (Transplant Sensitive Cactus) which provides for detailed surveys of tower locations prior to construction. If sensitive plant species are located at the site, SCE has indicated that tower locations would be adjusted to reduce impacts. In order to reduce potential impacts to a less than significant level, Mitigation Measure B-8a (Conduct surveys for listed plant species) would be implemented.

Mitigation Measure for Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plant species

B-8a Conduct surveys for listed plant species.

Wildlife

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates. Construction of the Alligator Rock–North of Desert Center Alternative is not expected to result in any impacts to sensitive invertebrate species. There is no indication that any sensitive invertebrates occur in this alternative. Two listed species of fairy shrimp, Riverside fairy shrimp and vernal pool fairy shrimp, are known to occur in southwestern Riverside County but have not been documented in this section of northwestern Riverside County.

Fish. There is no indication that any rare or listed fish species occur in this alternative. Surveys conducted of the Project area did not detect the presence of listed fish species in this segment and impacts would be considered less than significant (Class III).

Amphibians. There is no indication that any listed amphibians occur in this alternative. Surveys conducted of the Project area did not detect the presence of listed Amphibians species in this segment and impacts would be considered less than significant (Class III).

Reptiles. Construction of this segment of the Alligator Rock–North of Desert Center Alternative would remove habitat for Mojave fringe-toed lizard and Colorado Desert fringe-toed lizard. These species are known to occur in this segment and may be subject to mortality from project activities. Flat-tailed horned lizard, the northern red-diamond rattlesnake, and rosy boa may also occur in this area. Implementation of APMs and Mitigation Measures B-9b (Conduct biological monitoring) and B-9d (Conduct pre-construction reptile surveys) would reduce potential impacts to sensitive reptiles to less than significant levels (Class II).

Birds. Three sensitive bird species Le Conte's thrasher, loggerhead shrike, and prairie falcon are known to occur within this alternative. In addition, ferruginous hawk, Bendire's thrasher, and Crissal thrasher have a high potential to occur in this segment. Mountain plover and vermillion flycatcher may also be present but due to habitat conditions in this segment have only a moderate potential to occur. As described in Section 2.6.1.8, the Proposed Project could cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat, potential bird strikes on high tension wires, and disturbance of nesting activities.

Substantial impacts to foraging habitat for the ferruginous hawk would not occur as this is a wide ranging species. Impacts to other birds from displacement or noise would be reduced through APM B-22. This APM is designed to minimize impacts to Crissal thrasher and Le Conte's thrasher and their habitat by avoiding mesquite dominated areas and creosote bush scrub. In order to reduce potential impacts to a less than significant level (Class II), Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would also be implemented.

Mammals. As discussed in Section D.2.2.6 there are a variety of sensitive mammal species that may occur in the vicinity of the Midpoint Station to Cactus City Rest Area segment. Of primary concern in this segment is the potential impact to roosting bat species. Construction activities may have an impact on the three sensitive bat species that have a high potential to occur in this area including pallid bat, western mastiff bat, and pocketed free-tailed bat. Seven other species of bat California leaf-nosed bat, Townsend's big-eared bat, spotted bat, Arizona myotis, fringed myotis, cave myotis, and big free-tailed bat have a moderate potential to occur along this segment. Mitigation Measure B-9h (Conduct pre-construction surveys for roosting bats) would be implemented to reduce potential impacts to a less than significant level.

Construction of this alternative may directly impact suitable habitat for the Palm Springs round-tailed ground squirrel as a result of permanent and temporary removal of habitat. This species is known to occur west of Cactus City Rest Area. Impacts to this species are described in Section D.2.2.6 (Midpoint Substation to Cactus City Rest Area). If present, temporary and permanent impacts to habitat for the Coachella Valley round-tailed squirrel would be considered significant (Class II). In addition to the APMs proposed by SCE, Mitigation Measures B-9i (Schedule construction when the Coachella Valley round-tailed squirrel is dormant) would reduce impacts to the Coachella Valley round-tailed squirrel to less than significant levels.

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

B-9b Conduct biological monitoring.

B-9d Conduct pre-construction reptile surveys.

B-9h Conduct pre-construction surveys for roosting bats.

B-9i Schedule construction when the Coachella Valley round-tailed squirrel is dormant.

State and Federal Jurisdictional Habitats

Impact B-10: Adverse effects to Jurisdictional Waters and Wetlands (Class II)

Although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are located along the length of the Alligator Rock–North of Desert Center Alternative. In addition, construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats), the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Therefore, any impact to jurisdictional waterways would be significant (Class II). Impacts to jurisdictional waters and wetlands would be reduced to less than significant levels with the implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/ Compensation Plan).

Mitigation Measure for Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Wildlife Corridors and Nursery Sites

Impact B-11: The alternative would adversely affect the movement of fish, wildlife movement corridors, or native wildlife nursery sites (No Impact)

The drainages along the route of this alternative consist of desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events. Subsequently, most of the washes do not contain perennial flows and are not expected to support fish and other species that are dependent on permanent water sources. There are no known native wildlife nursery sites along the route of this alternative. Therefore, no impacts would be expected to the movement of fish and other species that are dependent upon water sources and no are expected to native wildlife nursery sites.

Impact B-12: The alternative would adversely affect linkages and wildlife movement corridors (No Impact)

Linkages and corridors facilitate regional animal movement, and are generally centered on waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Construction of this alternative is not expected to impact any linkages or wildlife movement corridors in the areas east, north, or west of Desert Center because no major linkages or corridors are present.

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (No Impact)

The Alligator Rock–North of Desert Center Alternative, as an individual section of the project, would traverse BLM land and unincorporated Riverside County. Plans developed by this jurisdiction, includ-

ing the CDCA Plan, Riverside County Comprehensive General Plan, and the Riverside County Desert Center Area Plan, were assessed to determine if any biological resources policies would apply to the construction and operation of this alternative. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with this alternative and identified those policies that required further evaluation in this EIR/EIS. Table D.2-13 in Section D.6.2.1.11 discusses those policies from the aforementioned plans that required further analysis. The Alligator Rock–North of Desert Center Alternative would not conflict with any of these policies.

Operational Impacts

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Potential impacts to birds from electrocution are discussed in Section D.2.6.2 and would be the same as the Proposed Project. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV and "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in line collisions by listed bird species (Class II)

Bird collisions in this segment would be similar to the Proposed Project. It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the vicinity of the alternative. These data are not available for the alternative transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest. The operation of the alternative may result in mortality of listed or sensitive bird species and this would be considered a significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a Utilize collision-reducing techniques in installation of transmission lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the transmission facilities associated with the alternative will result in an increase in potential nesting sites for common ravens. APM B-20 states that "all transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS Division of Law Enforcement to "take" common ravens or their nests." This APM partially reduces the impacts of common ravens on listed and sensitive wildlife species. However, the impacts may still remain significant if the various compa-

nies do not check the towers and remove nests on a regular basis and if the various companies remove other nests that are actively utilized by other raptors. An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a significant impact (Class II). Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a Prepare and implement a raven control plan.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the Alligator Rock–North of Desert Center Alternative would require regular maintenance of the various facilities associated with the project. Potential impacts from vehicle travel are discussed in Section D.2.6.2 and would be the same as the Proposed Project. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse but not significant (Class III).

D.2.7.6 Alligator Rock–Blythe Energy Transmission Alternative

Environmental Setting

Regional Setting. The regional setting for the Blythe Energy Transmission Alternative around Alligator Rock is the same as that described for the Proposed Project in Section D.2.1.

General Vegetation and Wildlife. The Alligator Rock–Blythe Energy Transmission Alternative would be 0.65 miles longer than proposed route, which would slightly increase the length and intensity of short-term construction impacts and ground disturbance. The vegetation community within the ROW for this alternative consists primarily of Sonoran creosote bush scrub and dry desert wash woodland as described in vegetation overview in the Environmental Setting for the Proposed Project (Section D.2.2) and for the Desert Southwest Transmission Project Alternative (Section D.7.4). The disturbance level of the vegetation near Alligator Rock and along the south side of I-10 is the same as that described for the Desert Southwest Transmission Project Alternative (Section D.7.4).

The wildlife species documented within the ROW for this alternative are the same as those described in the Environmental Setting (Section D.2.2) for the Proposed Project and for the Desert Southwest Transmission Project Alternative (Section D.7.4). The disturbance level in the vegetation communities and wildlife habitats in the areas nearest to the I-10, north of Alligator Rock and along the existing access roads is the same as previously described. However, the vegetation communities and wildlife habitat along the portion of the Blythe Energy Alternative that turns southwest towards the Proposed DPV2 line exhibits less disturbance as it approaches the proposed DPV2 location. This is a result of less human disturbance related to off-highway vehicle use and trash dumping. The abundance and diversity of wildlife would be expected to increase nearer to the Proposed DPV2 Alternative.

Special Status Plant and Wildlife Species. The potential for special status plant species to occur along the route of this alternative near Alligator Rock is the same as what was described for the Proposed Project in Section D.2.1.1.3. Populations of foxtail cactus have been documented to occur from Alligator Rock (MM E155) west to Red Cloud Mine Road (MM approximately MM E163) and between MM E186, near

the I-10 crossing, and Cactus City Rest Area (MM E188.2) (Environmental Planning Group, 2003 and 2005). This species potentially occurs along the alignment of the Blythe Energy Alternative. Several other plants considered rare or unique by the CNPS also occur in this area and may be subject to disturbance from construction activities. Some of these species include desert sand parsley, ayenia, crucifixion thorn, glandular ditaxis, and California ditaxis. Desert spike-moss and Cove's cassia may also be present. Latimer's woodland gilia, and Mecca-aster, CNPS List 1B plants are present in the areas north of Alligator Rock and south of I-10 between Alligator rock and Cactus City Rest Area.

Similarly, the potential for sensitive wildlife species to occur would be the same as previously described for the Proposed Project in Section D.2.1.1.3 and for the Desert Southwest Transmission Line Alternative. The density of desert tortoise and other sensitive wildlife species would be expected to be lower in the areas north of Alligator Rock and along the south side of I-10 due to human caused disturbances and introduction of non-native plant species into the habitats. However, the density of desert tortoise and other sensitive wildlife species increases as the line proceeds south towards the junction with the Proposed DPV2 line. This is likely due to the fact that the habitat becomes more diverse and the level of disturbance is less in areas that lie further south of the I-10.

This alternative would also cross the Chuckwalla DWMA ACEC in the same or very similar location that was described for the Proposed Project (Section D.2.1.1.4). In addition, this alternative would traverse through the same portion of designated Critical Habitat for desert tortoise that was described for the Proposed Project (Sections D.2.1.1.4).

Impacts and Mitigation Measures – Vegetation

The types of construction impacts that would occur with this alternative would be the same as those described for the Proposed Action in Section D.2.6.1.

Construction Impacts

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

The Alligator Rock–North of Desert Center Alternative would remove Sonoran desert scrub and may potentially remove dry desert wash woodland vegetation at the tower locations between where this alternative diverges from the Proposed Project alignment east of Alligator Rock to where it again converges with the Proposed ROW east of Desert Center. As stated for Impact B-1 in Section 2.6.1.1, the vegetation will be permanently removed at the locations of the tower footings. In addition, the construction areas around the tower sites may be temporarily disturbed, depending on the amount of area necessary for ongoing maintenance. Because this alternative is 0.65 miles longer than the alignment of the Proposed Project around Alligator Rock, and because this alternative would require the construction of new access roads, this alternative will potentially remove more native vegetation that the Proposed Project. However, due to the higher level of human disturbance north of Alligator Rock and south of the I-10, the quality of the habitat that would be removed as a result of this alternative is generally poorer than the habitat along the alignment of the Proposed Project around Alligator Rock. The permanent loss and temporary disturbance of Sonoran desert scrub and dry desert wash woodland resulting from the construction of this alternative would result in significant impacts to native vegetation communities. Loss of Sonoran desert scrub habitat would be considered a significant impact (Class II). Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) would be implemented by the SCE to reduce impacts to less than significant levels.

Mitigation Measure for Impact B-1: Construction activities would permanently remove native vegetation

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species (Class II)

Construction impacts along the entire length of this alternative would be the same as described in Section (D.2.6.1.2). To reduce the potential for the introduction of invasive or noxious weeds, SCE would implement APM B-2 (Standard Noxious Weed BMPs) and B-11, which would require hand clearing of vegetation in certain areas located along the ROW. This APM would facilitate the maintenance of existing root systems which may help to stabilize the soils against erosion and assist in the restoration of these areas if the plants resprout at the conclusion of project activities. SCE would also implement APM B-19, which would require the restoration of disturbed areas at the conclusion of construction. However, SCE has not indicated which areas would be subject to hand clearing or restoration at this time. The introduction of non-native plant species would be considered a significant impact (Class II). Implementation of the Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-2a (Conduct invasive and noxious weed inventory), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-2a Conduct invasive and noxious weed inventory.

B-2b Implement control measures for invasive and noxious weeds.

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. Increased levels of dust on the leaves of plants can decrease the photosynthetic capabilities of the plants. SCE would implement Title 1 measures (Air Quality) to decrease fugitive dust including reduced vehicle speeds, use of tackifiers, and periodic watering of the ROW. Watering will be done in such a way as to prevent pooling of water on the soil surface so that toad species would not be stimulated to emerge from their subsoil aestivation burrows prior to natural rain events. With the implementation of Title 1 rules the potential impacts of increased dust settling on plants is expected to be adverse but not significant (Class III).

Wildlife

Direct impacts on wildlife would be similar to those described in Section D.2.6.4.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

The direct loss of small mammals, reptiles, and other less mobile species would likely occur in the undeveloped areas along the length of this alternative. The loss of vegetation would also result in the

temporary loss of breeding and foraging habitat for wildlife. Impacts from vehicle traffic and construction-related activities are the same as described in Section 2.6.1.4

Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on common wildlife from construction would generate potentially adverse but not significant impacts (Class III).

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

As described in Section 2.6.1.5 ground-disturbing activity, including tower pad preparation and construction and grading of new access roads has the potential to disturb vegetation utilized by nesting birds. The removal of habitat during the breeding season would likely result in the displacement of breeding birds and the abandonment of active nests. Impacts would be potentially significant, but would be reduced to less than significant levels (Class II) with implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

Impacts and Mitigation Measures – Threatened or Endangered Plant or Wildlife Species

Construction impacts for threatened and endangered species would be same as described for vegetation and wildlife in Section D.2.6.1.6

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class III)

The loss of individuals or known habitats of threatened, or endangered plant species would be considered a significant impact without mitigation. No State or federally listed, endangered, or threatened plant species have been identified as occurring within this alternative and none are expected to occur. This alternative alignment either does not contain suitable habitat for any other listed plants or it is located outside the geographical range for any of the listed plant species that were identified as having a high or moderate potential to occur in Table D.2-4. These species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Implementation of APM B-8 (Pre-construction Surveys for Rare Plants) would minimize potential impacts to listed plants (Class III).

Threatened or Endangered Wildlife

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

The Alligator Rock–Blythe Energy Alternative contains Sonoran desert scrub habitat where a known population of desert tortoise occurs. As described in the Environmental Setting of Section D.2.7.6, with the exception of the desert tortoise and possibly the Palm Springs round-tailed ground squirrel, no other listed or candidate wildlife species were identified with the potential to occur along the route of this alternative.

Fish. This alternative does not contain standing water and the area does support populations of rare fish. Impacts to sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. No listed amphibian species have a potential to occur along the alignment for this alternative. This portion of the Project does not fall within the range nor does it support the appropriate habitat requirements of any listed amphibian species that were determined to have a high or moderate potential to occur. Impacts to sensitive amphibians would be considered less than significant (Class III) and no additional mitigation is proposed.

Reptiles. Construction of Blythe Energy Alternative around Alligator Rock would impact Sonoran desert scrub habitat that is known to support desert tortoises. Occupied habitat occurs south of I-10 and tortoises and tortoise sign have been documented along the Blythe Energy alignment. The density of tortoises in the areas nearest to the I-10 and north of Alligator Rock appear to be less than those found along the Proposed Project alignment because less tortoise sign was found. Direct impacts from the activities associated with transmission line and access road construction include permanent and temporary removal of occupied and potential habitat, displacement of tortoises from portions of home ranges, removal of foraging habitat, damage to burrows, and mortality of tortoises. Indirect impacts that may result include degradation of habitat in areas adjacent to occupied habitat (introduction of non-native plant species and increased wind/water erosion) and harassment of tortoises resulting from increased presence of humans and vehicle/equipment. Even though the Blythe Energy Alternative is longer than the Proposed Project in the Alligator Rock area, the impacts to desert tortoise would be expected to be less because of the presence of poorer quality habitat in the areas nearer to the I-10 and north of Alligator Rock. In addition, the amount of tortoise sign found along this alternative was less than along the Proposed Project alignment. This alternative may impact more habitat, but lower-quality habitat, than the Proposed Project alignment. The take of desert tortoises, whether it results from direct or indirect impacts, would be considered a significant impact (Class II).

Construction of this alternative would impact designated critical habitat for the desert tortoise. The ROW would pass through designated critical habitat along its entire length. This alternative will impact slightly more designated Critical Habitat because it is 0.65 miles longer than the Proposed Project. Physical impacts to designated critical habitat would be the same as those described for the Alligator Rock–North of Desert Center Alternative (Section D.2.7.5). APM B-19 would provide some restoration of areas within designated critical habitat following the completion of construction but this measure would not fully mitigate for modifications to designated critical habitat. The impacts resulting from the construction of this alternative would result in significant impacts on designated critical habitat for the desert tortoise (Class II).

Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to desert tortoise would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Tortoise)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-7b Conduct pre-construction tortoise surveys.

B-7c Purchase mitigation lands for impacts to tortoise habitat.

Birds. Listed bird species have not been documented in this segment. Construction activities associated with the Proposed Project are not expected top result in impacts to these species (Class III).

Mammals. There is no indication that listed mammal species occur in this alternative. The Coachella Valley round-tailed ground squirrel, a Federal Candidate for listing is likely to occur. Impacts to round-tailed squirrel are discussed under sensitive wildlife.

State or Federal Species of Special Concern

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class II)

Plants. Construction of the Alligator Rock–Blythe Energy Alternative would permanently remove suitable habitat for foxtail cactus and may result in the removal of individuals of this species. Foxtail cactus has been documented south of the I-10, in the alignment of the Proposed Project. Permanent removal of the vegetation at the locations of the tower footings and along he access and spur roads will occur. In addition, the construction areas around the tower sites may be temporarily disturbed, depending on the amount of area necessary for ongoing maintenance. Construction of this alternative will also impact potential habitat for 22 other sensitive plant species (partial list below) that may occur along the alignment of this alternative (refer to Table D.2-4 for specific details).

- Ayenia
- crucifixion thorn
- glandular ditaxis
- California ditaxis
- Orocopia sage
- desert spike-moss
- Cove's cassia
- Abram's spurge
- Spearleaf
- Latimer's woodland gilia
- Mecca aster

Because the length of this alternative is slightly longer than the Alligator Rock alignment for the Proposed Project, the impacts to sensitive plant species may be greater than the Proposed Project. However, the disturbed nature of the vegetation communities along the south side of the I-10 and north of Alligator Rock may lower the potential that these species occur along the alignment. If present, impacts to these sensitive plant species would be considered significant (Class II).

As described in Section D.2.6.1.7 to reduce potential impacts to sensitive plants SCE would implement APM B-8 (Pre-construction Surveys) and APM B-9 (Transplant Sensitive Cactus) which provides for detailed surveys of tower locations prior to construction. If sensitive plant species are located at the site, SCE has indicated that tower locations would be adjusted to reduce impacts. In order to reduce potential impacts to a less than significant level, Mitigation Measure B-8a (Conduct surveys for listed plant species) would be implemented.

Mitigation Measure for Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plant species

B-8a Conduct surveys for listed plant species.

Wildlife

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates. Construction of the Alligator Rock–North of Desert Center Alternative is not expected to result in any impacts to sensitive invertebrate species because suitable habitat for sensitive invertebrates is not present along the alignment (See Table D.2-5 in the Environmental Setting for details).

Fish. This alternative does not contain standing water and the area does support populations of rare fish. Impacts sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. This alternative does not contain suitable habitat for sensitive amphibians and the area does support populations of sensitive amphibians. Impacts to sensitive amphibians would be considered less than significant (Class III) and no additional mitigation is proposed.

Reptiles. Construction of the Blythe Energy Alternative would result in potential impacts to flat-tailed horned lizard and rosy boa, two sensitive reptiles that may potentially occur in the desert scrub habitat located along this alternative alignment. This impact would be slightly different than the impacts of the Proposed Project because of the slight increase in length (0.65 miles) but the habitat quality in the area along the south side of the I-10 and along the north side of Alligator Rock is less than along the Proposed Project alignment. No other sensitive reptile species that were determined to have a potential to occur along the alignment of the Proposed Project (Table D.2-5 in the Environmental Setting) would be expected to occur along this alternative because of lack of suitable habitat or because this alternative lies outside of the range of these species. The temporary and permanent loss of habitat and potentially the loss of individuals of the sensitive reptile species would be considered a significant impact (Class II). Implementation of APMs and Mitigation Measures B-9b (Conduct biological monitoring) and B-9d (Conduct pre-construction reptile surveys) would reduce potential impacts to sensitive reptiles to less than significant levels.

Birds. Construction of this alternative would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat and disturbance related to construction activities. Construction activities and the increased presence of humans may result in direct or indirect impacts to sensitive birds that potentially occur in the vicinity. Construction of this alternative would result in the permanent and temporary removal of suitable desert scrub habitat where Le Conte's thrasher, Bendire's thrasher, mountain plover, loggerhead shrike, and ferruginous hawk (foraging habitat) may occur (See Table D.2-5 in the Environmental Setting for details). No other sensitive bird species are expected to be affected by this alternative due to lack of suitable habitat or the alternative is not within the range of other sensitive bird species. This temporary and permanent loss of potential habitat would be considered a significant impact (Class II). In order to reduce potential impacts to a less than significant level (Class II), Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would also be implemented.

Mammals. Construction of this alternative could result in potential impacts to or remove habitat for a variety of sensitive species including:

- pallid bat
- western mastiff bat
- pocketed free-tailed bat
- California leaf-nosed bat
- Townsend's big-eared bat
- spotted bat
- Arizona myotis
- fringed myotis
- cave myotis
- big free-tailed bat
- American badger

The potential impacts to these species would be similar to that described for the listed species. Construction activities would result in the removal of habitat that could support populations of these species. The loss of this habitat could affect foraging opportunities for small rodents and bats. Construction-related impacts to bat species could potentially occur in the hilly regions of the Chuckwalla Mountains. No roosting or hibernacula sites have been identified in this area and construction would be limited to daylight hours. Pallid bats could be impacted by night time travel on the existing access roads. The permanent and temporary loss of habitat and potentially the loss of individuals would be considered a significant impact (Class II). Mitigation Measure B-9h (Conduct pre-construction surveys for roosting bats) would be implemented to reduce potential impacts to a less than significant level.

Impacts to American badger are addressed in Section D.2.6.1.8.

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-5a **Conduct pre-construction surveys and monitoring for breeding birds.**

B-9b **Conduct biological monitoring.**

B-9d **Conduct pre-construction reptile surveys.**

B-9h **Conduct pre-construction surveys for roosting bats.**

State and Federal Jurisdictional Habitats

Impact B-10: Adverse effects to Jurisdictional Waters and Wetlands (Class II)

Although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are located along the length of Alligator Rock–Blythe Energy Alternative around Alligator Rock. Although construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats), the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Therefore, any impact to jurisdictional waterways would be significant (Class II). Impacts to jurisdictional waters and wetlands would be reduced to less than significant levels with the implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/ Compensation Plan).

Mitigation Measure for Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Wildlife Corridors and Nursery Sites

Impact B-11: The alternative would adversely affect the movement of fish, wildlife movement corridors, or native wildlife nursery sites (No Impact)

The drainages along the route of this alternative consist of desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events. The washes do not contain perennial flows and are not expected to support fish and other species that are dependent on permanent water sources. There are no known native wildlife nursery sites along the route of this alternative. Therefore, no impacts would be expected to the movement of fish and other species that are dependent upon water sources and no are expected to native wildlife nursery sites.

Impact B-12: The alternative would adversely affect linkages and wildlife movement corridors (No Impact)

Linkages and corridors facilitate regional animal movement, and are generally centered on waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Construction of this alternative is not expected to impact any linkages or wildlife movement corridors because no major linkages or corridors are present.

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (No Impact)

The Alligator Rock–Blythe Energy Transmission Project Alternative, as an individual section of the project, would traverse BLM land and unincorporated Riverside County. Plans developed by this jurisdiction, including the CDCA Plan, Riverside County Comprehensive General Plan, and the Riverside County Desert Center Area Plan, were assessed to determine if any biological resources policies would apply to the construction and operation of this alternative. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with this alternative and identified those policies that required further evaluation in this EIR/EIS. Table D.2-13 in Section D.6.2.1.11 discusses those policies from the afore-mentioned plans that required further analysis. The Alligator Rock–Blythe Energy Transmission Project Alternative would not conflict with any of these policies.

Operational Impacts

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Potential impacts to birds from electrocution are discussed in Section D.2.6.2 and would be the same as the Proposed Project. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV and "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in line collisions by listed bird species (Class II)

Bird collisions with power lines generally occur when: (1) a power line or other aerial structure transects a daily flight path used by a concentration of birds, and (2) migrants are traveling at reduced altitudes and encounter tall structures in their path (Brown, 1993). Collision rates generally increase in low light conditions, during inclement weather, such as rain or snow, during strong winds, and during panic flushes when birds are startled by a disturbance or are fleeing from danger. Collisions are more probable near wetlands, valleys that are bisected by power lines, and within narrow passes where power lines run perpendicular to flight paths. Passerines (i.e., songbirds) and waterfowl (i.e., mallard ducks) are known to collide with wires (APLIC, 1994), particularly during nocturnal migrations or poor weather conditions (Avery et al., 1978). However, passerines and waterfowl have a lower potential for collisions than larger birds, such as raptors. Some behavioral factors contribute to a lower collision mortality rate for these birds. Passerines and waterfowl tend to fly under power lines, as opposed to larger species, which generally fly over the lines and risk colliding with the higher static lines, and many smaller birds tend to reduce their flight activity during poor weather conditions (Avery et al., 1978). It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the vicinity of the alternative. These data are not available for the alternative transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest. The operation of the alternative may result in mortality of listed or sensitive bird species and this would be considered a significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a Utilize collision-reducing techniques in installation of transmission lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the transmission facilities associated with the alternative will result in an increase in potential nesting sites for common ravens. APM B-20 states that "all transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS Division of Law Enforcement to "take" common ravens or their nests." This APM partially reduces the impacts of common ravens on listed and sensitive wildlife species. However, the impacts may still remain significant if the various companies do not check the towers and remove nests on a regular basis and if the various companies remove other nests that are actively utilized by other raptors. An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a significant impact (Class II). Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a Prepare and implement a raven control plan.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the Alligator Rock–Blythe Energy Transmission Alternative would require regular maintenance of the various facilities associated with the project. Potential impacts from vehicle travel are discussed in Section D.2.6.2 and would be the same as the Proposed Project. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse but not significant (Class III).

D.2.7.7 Alligator Rock–South of I-10 Frontage Alternative

Environmental Setting

Regional Setting. The regional setting for the South of I-10 Frontage Alternative around Alligator Rock is the same as that described for the Proposed Project in Section D.2.2.1.

General Vegetation and Wildlife. This alternative route is the same as the route proposed for the Desert Southwest Transmission Project. The South of I-10 Frontage Alternative would diverge from the Proposed Project at MP 151, approximately 3.5 miles east of Desert Center and would follow the Alligator Rock–Blythe Energy Transmission Alternative route for 3.25 miles to the point at which the BEPTL Alternative turns southwest, just east of Alligator Rock. After passing between the northern end of Alligator Rock and the I-10 itself, this alternative would continue in a westerly direction, immediately south of I-10 and Aztec Avenue for 6.3 miles. It would rejoin the Proposed Project route at MP 160. The Alligator Rock–South of I-10 Frontage Alternative would be 9.77 miles long and the proposed route would be 9.2 miles long in the equivalent segment.

The Alligator Rock–South of I-10 Frontage Alternative would be 0.57 miles longer than the proposed route, which would slightly increase the length and intensity of short-term construction impacts and ground disturbance. The vegetation community within the ROW for this alternative consists primarily of Sonoran creosote bush scrub and dry desert wash woodland as described in vegetation overview in the Environmental Setting for the Proposed Project (Section D.2.1.1.1) and for the Desert Southwest Transmission Project Alternative (Section D.2.7.4). The disturbance level of the vegetation near Alligator Rock and along the south side of I-10 is the same as that described for the Desert Southwest Transmission Project Alternative (Section D.2.7.4).

The wildlife species documented within the ROW for this alternative are the same as those described in the Environmental Setting (Section D.2.2) for the Proposed Project and for the Desert Southwest Transmission Project Alternative (Section D.2.7.4). The disturbance level in the vegetation communities and wildlife habitats in the areas nearest to the I-10, north of Alligator Rock and along the existing access roads is the same as previously described. However, this alternative traverses close to the I-10 for a longer distance than either the Desert Southwest or Blythe Energy Alternatives. This alternative traverses through more disturbed vegetation communities and wildlife habitat on the south side of the I-10 than either of the other two Alternatives. In addition, the entire length of this alternative is comprised of poorer quality habitat than the habitat in the alignment of the Proposed Project. The

abundance, diversity, and density of wildlife species along the length of this alternative would be expected to be less due to the high disturbance level in the habitat.

Special Status Plant and Wildlife Species. The potential for special status plant species to occur along the route of this alternative near Alligator Rock is the same as what was described for the Proposed Project in Section D.2.2 and for the Desert Southwest Transmission Project Alternative (Section D.2.7.4).

Similarly, the potential for sensitive wildlife species to occur would be the same as previously described for the Proposed Project in Section D.2.2 and the Desert Southwest Transmission Project Alternative (Section D.2.7.4).

This alternative would cross through the Chuckwalla DWMA ACEC in the same or very similar location as was described for the Proposed Project (Section D.2.1.1.4). In addition, this alternative would traverse through the same portion of designated Critical Habitat that was described for the Proposed Project (Section D.2.1.1.4).

Impacts and Mitigation Measures – Vegetation

The types of construction impacts that would occur with this alternative would be the same as those described for the Proposed Action in Section D.2.6.1.

Construction Impacts

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

The Alligator Rock–South of I-10 Frontage Alternative would remove Sonoran desert scrub and may potentially remove dry desert wash woodland vegetation at the tower locations between where this alternative diverges from the Proposed DPV2 line east of Alligator Rock to where it again converges with the DPV2 line. As stated for Impact B-1 in Section 2.6.1.1, the vegetation will be permanently removed at the locations of the tower footings. In addition, the construction areas around the tower sites may be temporarily disturbed, depending on the amount of area necessary for ongoing maintenance. Because this alternative is 0.57 miles longer than the alignment of the Proposed Project around Alligator Rock, this alternative will potentially remove more native vegetation that the Proposed Project. However, due to the higher level of human disturbance south of Alligator Rock and south of the I-10, the quality of the habitat that would be removed as a result of this alternative is generally poorer than the habitat along the alignment of the Proposed Project around Alligator Rock. The permanent loss and temporary disturbance of Sonoran desert scrub and dry desert wash woodland resulting from the construction of this alternative would result in significant impacts to native vegetation communities. Loss of Sonoran desert scrub habitat would be considered a significant impact (Class II). Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) would be implemented by the SCE to reduce impacts to less than significant levels.

Mitigation Measure for Impact B-1: Construction activities would permanently remove native vegetation

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species (Class II)

Construction impacts along the entire length of this alternative would be the same as described in Section (D.2.6.1.2). To reduce the potential for the introduction of invasive or noxious weeds, SCE would implement APM B-2 (Standard Noxious Weed BMPs) and B-11, which would require hand clearing of vegetation in certain areas located along the ROW. This APM would facilitate the maintenance of existing root systems which may help to stabilize the soils against erosion and assist in the restoration of these areas if the plants resprout at the conclusion of project activities. SCE would also implement APM B-19, which would require the restoration of disturbed areas at the conclusion of construction. However, SCE has not indicated which areas would be subject to hand clearing or restoration at this time. The introduction of non-native plant species would be considered a significant impact (Class II). Implementation of the Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-2a (Conduct invasive and noxious weed inventory), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-2a Conduct invasive and noxious weed inventory.

B-2b Implement control measures for invasive and noxious weeds.

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. Increased levels of dust on the leaves of plants can decrease the photosynthetic capabilities of the plants. SCE would implement Title 1 measures (Air Quality) to decrease fugitive dust including reduced vehicle speeds, use of tackifiers, and periodic watering of the ROW. Watering will be done in such a way as to prevent pooling of water on the soil surface so that toad species would not be stimulated to emerge from their subsoil aestivation burrows prior to natural rain events. With the implementation of Title 1 rules the potential impacts of increased dust settling on plants is expected to be adverse but not significant (Class III).

Wildlife

Direct impacts on wildlife would be similar to those described in Section D.2.6.4.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

The direct loss of small mammals, reptiles, and other less mobile species would likely occur in the undeveloped areas along the length of this alternative. The loss of vegetation would also result in the temporary loss of breeding and foraging habitat for wildlife. Impacts from vehicle traffic and construction-related activities are the same as described in Section 2.6.1.4.

Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on common wildlife from construction would generate potentially adverse but not significant impacts (Class III).

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

As described in Section 2.6.1.5 ground-disturbing activity, including tower pad preparation and construction and grading of new access roads has the potential to disturb vegetation utilized by nesting birds. The removal of habitat during the breeding season would likely result in the displacement of breeding birds and the abandonment of active nests. Impacts would be potentially significant, but would be reduced to less than significant levels (Class II) with implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

Impacts and Mitigation Measures – Threatened or Endangered Plant or Wildlife Species

Construction impacts for threatened and endangered species would be same as described for vegetation and wildlife in Section D.2.4.1.6.

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class III)

The loss of individuals or known habitats of threatened, or endangered plant species would be considered a significant impact without mitigation. No State or federally listed, endangered, or threatened plant species have been identified as occurring within this alternative and none are expected to occur. This alternative alignment either does not contain suitable habitat for any other listed plants or it is located outside the geographical range for any of the listed plant species that were identified as having a high or moderate potential to occur in Table D.2-4. These species have not been previously recorded in the Proposed Project area and were not identified during surveys conducted by SCE. Implementation of APM B-8 (Pre-construction Surveys for Rare Plants) would minimize potential impacts to listed plants (Class III).

Threatened or Endangered Wildlife

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

The Alligator Rock–South of I-10 Frontage Alternative contains Sonoran desert scrub habitat where a known population of desert tortoise occurs. As described in the Environmental Setting of this section, with the exception of the desert tortoise and possibly the Palm Springs round-tailed ground squirrel, no other listed or candidate wildlife species were identified with the potential to occur along the route of this alternative.

Fish. This alternative does not contain standing water and the area does support populations of rare fish. Impacts to sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. No listed amphibian species have a potential to occur along the alignment for this alternative. This portion of the Project does not fall within the range nor does it support the appropriate habitat requirements of any listed amphibian species that were determined to have a high or moderate potential to occur. Impacts to sensitive amphibians would be considered less than significant (Class III) and no additional mitigation is proposed.

Reptiles. Focused protocol-level surveys have not been conducted for desert tortoise in the portion of the alignment where it diverges from the Desert Southwest Transmission Project Alternative west to where it converges with the Proposed DPV2 line. Construction of South of I-10 Frontage Alternative around Alligator Rock would impact Sonoran desert scrub habitat that is known to support desert tortoises. Occupied habitat occurs south of I-10 in the Proposed Project alignment and tortoises and tortoise sign have been documented along the Desert Southwest and Blythe Energy Transmission Line Alternatives. The density of tortoises in the areas nearest to the I-10 and north of Alligator Rock appear to be less than those found along the Proposed Project alignment (Section D.2.2) because less tortoise sign was found. Direct impacts from the activities associated with transmission line and access road construction include permanent and temporary removal of occupied and potential habitat, displacement of tortoises from portions of home ranges, removal of foraging habitat, damage to burrows, and mortality of tortoises. Indirect impacts that may result include degradation of habitat in areas adjacent to occupied habitat (introduction of non-native plant species and increased wind/water erosion) and harassment of tortoises resulting from increased presence of humans and vehicle/equipment. Even though the South of I-10 Frontage Alternative is longer than the Proposed Project in the Alligator Rock area, the impacts to desert tortoise would be expected to be less because of the presence of poorer quality habitat in the areas nearer to the I-10 and north of Alligator Rock. In addition, the amount of tortoise sign found along the portions of this alternative that correspond to the Desert Southwest Transmission Project Alternative was less than along the Proposed Project alignment. A similar survey result would be expected for the portion of the South of I-10 Frontage Alternative that runs along the I-10 from where it diverges from Desert Southwest to where it converges with the Proposed DPV2 line. This alternative may impact more habitat, but lower-quality habitat, than the Proposed Project alignment. The take of desert tortoises, whether it results from direct or indirect impacts, would be considered a significant impact (Class II).

Construction of this alternative would impact designated critical habitat for the desert tortoise. The ROW would pass through designated critical habitat along its entire length. This alternative will impact slightly more designated Critical Habitat because it is 0.57 miles longer than the Proposed Project. Physical impacts to designated critical habitat would be the same as those described for the Alligator Rock–North of Desert Center Alternative (Section D.2.7.5). APM B-19 would provide some restoration of areas within designated critical habitat following the completion of construction but this measure would not fully mitigate for modifications to designated critical habitat. The impacts resulting from the construction of this alternative would result in significant impacts on designated critical habitat for the desert tortoise (Class II).

Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to desert tortoise would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant.

Mitigation Measures for Impact B-7: Construction activities could result in the loss of listed wildlife or habitat (Tortoise)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-7b Conduct pre-construction tortoise surveys.

B-7c Purchase mitigation lands for impacts to tortoise habitat.

Birds. Listed bird species have not been documented in this segment. Construction activities associated with the Proposed Project are not expected top result in impacts to these species (Class III).

Mammals. There is no indication that listed mammal species occur in this alternative. The Palm Springs round-tailed ground squirrel, a Federal Candidate for listing is likely to occur. Impacts to round-tailed squirrel are discussed under sensitive wildlife.

State or Federal Species of Special Concern

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class II)

Plants. Construction of the Alligator Rock–South of I-10 Frontage Alternative would permanently remove suitable habitat for foxtail cactus and may result in the removal of individuals of this species. Foxtail cactus has been documented south of the I-10, in the alignment of the Proposed Project. Permanent removal of the vegetation at the locations of the tower footings and along he access and spur roads will occur. In addition, the construction areas around the tower sites may be temporarily disturbed, depending on the amount of area necessary for ongoing maintenance. Construction of this alternative will also impact potential habitat for 22 other sensitive plant species (partial list below) that may occur along the alignment of this alternative (refer to Table D.2-4 for specific details).

- Ayenia
- crucifixion thorn
- glandular ditaxis
- California ditaxis
- Orocopia sage
- desert spike-moss
- Cove's cassia
- Abram's spurge
- Spearleaf
- Latimer's woodland gilia
- Mecca aster

Because the length of this alternative is slightly longer than the Alligator Rock alignment for the Proposed Project, the impacts to sensitive plant species may be greater than the Proposed Project. However, the disturbed nature of the vegetation communities along the south side of the I-10 and north of Alligator Rock may lower the potential that these species occur along the alignment. If present, impacts to these sensitive plant species would be considered significant (Class II).

As described in Section D.2.6.1.6 to reduce potential impacts to sensitive plants SCE would implement APM B-8 (Pre-construction Surveys) and APM B-9 (Transplant Sensitive Cactus) which provides for detailed surveys of tower locations prior to construction. If sensitive plant species are located at the site, SCE has indicated that tower locations would be adjusted to reduce impacts. In order to reduce potential impacts to a less than significant level, Mitigation Measure B-8a (Conduct surveys for listed plant species) would be implemented.

Mitigation Measure for Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plant species

B-8a Conduct surveys for listed plant species.

Wildlife

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates. Construction of the Alligator Rock–South of I-10 Frontage Alternative is not expected to result in any impacts to sensitive invertebrate species because suitable habitat for sensitive invertebrates is not present along the alignment (See Table D.2-5 for details).

Fish. This alternative does not contain standing water and the area does support populations of rare fish. Impacts sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. This alternative does not contain suitable habitat for sensitive amphibians and the area does support populations of sensitive amphibians. Impacts to sensitive amphibians would be considered less than significant (Class III) and no additional mitigation is proposed.

Reptiles. Construction of the Alligator Rock–South of I-10 Frontage Alternative would result in potential impacts to flat-tailed horned lizard and rosy boa, two sensitive reptiles that may potentially occur in the desert scrub habitat located along this alternative alignment. This impact would be slightly different than the impacts of the Proposed Project because of the slight increase in length (0.57 miles) but the habitat quality in the area along the south side of the I-10 and along the north side of Alligator Rock is less than along the Proposed Project alignment. No other sensitive reptile species that were determined to have a potential to occur along the alignment of the Proposed Project (Table D.2-5 in the Environmental Setting) would be expected to occur along this alternative because of lack of suitable habitat or because this alternative lies outside of the range of these species. The temporary and permanent loss of habitat and potentially the loss of individuals of the sensitive reptile species would be considered a significant impact (Class II). Implementation of APMs and Mitigation Measures B-9b (Conduct biological monitoring) and B-9d (Conduct pre-construction reptile surveys) would reduce potential impacts to sensitive reptiles to less than significant levels.

Birds. Construction of this alternative would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat and disturbance related to construction activities. Construction activities and the increased presence of humans may result in direct or indirect impacts to sensitive birds that potentially occur in the vicinity. Construction of this alternative would result in the permanent and temporary removal of suitable desert scrub habitat where Le Conte's thrasher, Bendire's thrasher, mountain plover, loggerhead shrike, and ferruginous hawk (foraging habitat) may occur (See Table D.2-5 in the Environmental Setting for details). No other sensitive bird species are expected to be affected by this alternative due to lack of suitable habitat or the alternative is not within the range of other sensitive bird species. This temporary and permanent loss of potential habitat would be considered a significant impact (Class II). In order to reduce potential impacts to a less than significant level (Class II), Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would also be implemented.

Mammals. Construction of the South of I-10 Frontage Alternative could result in potential impacts to or remove habitat for a variety of sensitive species including:

- pallid bat
- western mastiff bat
- pocketed free-tailed bat
- California leaf-nosed bat
- Townsend's big-eared bat
- spotted bat
- Arizona myotis
- fringed myotis
- cave myotis
- big free-tailed bat
- American badger

The potential impacts to these species would be similar to that described for the listed and sensitive species in the Desert Southwest Transmission Line Alternative. Construction activities would result in the removal of habitat that could support populations of these species. The loss of this habitat could affect foraging opportunities for small rodents and bats. Construction-related impacts to bat species could potentially occur in the hilly regions of the Chuckwalla Mountains. No roosting or hibernacula sites have been identified in this area and construction would be limited to daylight hours. Pallid bats could be impacted by night time travel on the existing access roads. The permanent and temporary loss of habitat and potentially the loss of individuals would be considered a significant impact (Class II). Mitigation Measure B-9h (Conduct pre-construction surveys for roosting bats) would be implemented to reduce potential impacts to a less than significant level.

Impacts to American badger are addressed in Section D.2.6.5.3

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

B-9b Conduct biological monitoring.

B-9d Conduct pre-construction reptile surveys.

B-9h Conduct pre-construction surveys for roosting bats.

State and Federal Jurisdictional Habitats

Impact B-10: Adverse effects to Jurisdictional Waters and Wetlands (Class II)

Although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are located along the length of Alligator Rock–South of I-10 Frontage Alternative around Alligator Rock. Although construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats), the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Therefore, any impact to jurisdictional waterways would be significant (Class II). Impacts to jurisdictional waters and wetlands would be reduced to less than significant levels with the implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan).

Mitigation Measure for Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Wildlife Corridors and Nursery Sites

Impact B-11: The alternative would adversely affect the movement of fish, wildlife movement corridors, or native wildlife nursery sites (No Impact)

The drainages along the route of this alternative consist of desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events and they do not contain perennial flows. The washes would not be expected to support fish and other species that are dependent on permanent water sources. There are no known native wildlife nursery sites along the route of this alternative. Therefore, no impacts would be expected to the movement of fish and other species that are dependent upon water sources and no are expected to native wildlife nursery sites.

Impact B-12: The alternative would adversely affect linkages and wildlife movement corridors (No Impact)

Linkages and corridors facilitate regional animal movement, and are generally centered on waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Construction of this alternative is not expected to impact any linkages or wildlife movement corridors because no major linkages or corridors are present.

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (No Impact)

The Alligator Rock–South of I-10 Frontage Alternative, as an individual section of the project, would traverse BLM land and unincorporated Riverside County. Plans developed by this jurisdiction, including the CDCA Plan, Riverside County Comprehensive General Plan, and the Riverside County Desert Center Area Plan, were assessed to determine if any biological resources policies would apply to the construction and operation of this alternative. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with this alternative and identified those policies that required further evaluation in this EIR/EIS. Table D.2-13 in Section D.6.2.1.11 discusses those policies from the afore-mentioned plans that required further analysis. The Alligator Rock–South of I-10 Frontage Alternative would not conflict with any of these policies.

Operational Impacts

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Potential impacts to birds from electrocution are discussed in Section D.2.6.2 and would be the same as the Proposed Project. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV and "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in line collisions by listed bird species (Class II)

Bird collisions would be the same as the Proposed Project. It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the vicinity of the alternative. These data are not available for the alternative transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest. The operation of the alternative may result in mortality of listed or sensitive bird species and this would be considered a significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a Utilize collision-reducing techniques in installation of transmission lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the transmission facilities associated with the alternative will result in an increase in potential nesting sites for common ravens. APM B-20 states that "all transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS Division of Law Enforcement to "take" common ravens or their nests." This APM partially reduces the impacts of common ravens on listed and sensitive wildlife species. However, the impacts may still remain significant if the various companies do not check the towers and remove nests on a regular basis and if the various companies remove other nests that are actively utilized by other raptors. An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a significant impact (Class II). Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a Prepare and implement a raven control plan.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the Alligator Rock–South of I-10 Frontage Alternative would require regular maintenance of the various facilities associated with the project. Potential impacts from vehicle travel are discussed in Section D.2.6.2 and would be the same as the Proposed Project. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse but not significant (Class III).

D.2.8 Alternatives for West of Devers

D.2.8.1 Devers-Valley No. 2 Alternative

Environmental Setting

Regional Setting. The regional setting for this alternative would be the same as that described for the Proposed Project in Section D.2.1.

Vegetation Communities and Wildlife.

Vegetation. A biological survey of the route of the Devers-Valley No. 2 Alternative was conducted in February of 2006 by the EIR/EIS Consultants. A portion of the route of this alternative was inaccessible due to its steep topography and the presence of snow on the access roads. The inaccessible portion included the area from just west of Snow Creek Road where the line climbs into the foothills of the San Jacinto Mountains to where the line exits the mountains near Helen Avenue (southwest of Cabazon).

In general, the vegetation communities across the length of the Devers-Valley No. 2 Alternative are the same as some of the communities described in the Vegetation Overview (Section D.2.1.1.1). The locations of some of the vegetation communities is similar to what was described for the Proposed Project segments from Devers to East Border of Banning (Section D.2.3.1), Banning and Beaumont (Section D.2.3.2), Calimesa to San Bernardino Junction (Section D.2.3.3), and San Bernardino Junction to Vista Substation (D.2.3.4).

In general, the desert portion of this alignment, between Devers Substation and the foothills of the San Jacinto Mountains, supports similar vegetation communities to those occurring along the Proposed DPV2 alignment, between Devers and Cabazon. From Devers Substation west to where the Devers-Valley No. 2 Alternative crosses I-10, the vegetation communities consist of creosote bush scrub interspersed with patches of white bursage and disturbed creosote bush scrub (primarily within the wind farm areas). Just south of the I-10, the alignment crosses the Whitewater River, which consists of a broad sandy and cobbled desert wash that is mostly devoid of native vegetation. The periodic high flows in the wash tend to scour the vegetation and allow for invasion of non-native weedy species of plants. Between the Whitewater River and Highway 111, the ROW is dominated by disturbed creosote bush scrub. The ROW crosses the broad expanse of the San Gorgonio River and Snow Creek between Highway 111 and the foothills of the San Jacinto Mountains located to the southwest. The San Gorgonio River is a broad desert wash characterized by braided channels interspersed with patches of creosote bush scrub and coarse sand dunes.

As the alternative alignment enters the foothills, the vegetation communities change to areas dominated by brittlebush scrub and cheese bush on the lower slopes to semi-desert chaparral on the higher slopes. The inaccessible portions of this alignment likely support a mixture of semi-desert chaparral and sage scrub communities which transition to chamise chaparral along the alignment at the higher elevations. Repeated fires in 1994, 1995, 1996, and 2004 have occurred in the portions of this alternative alignment that traverse through the San Bernardino National Forest and Santa Rosa and San Jacinto National Monument. Much of the vegetation is recovering from the fires but the current condition of the vegetation in the burned areas has not been characterized due to inaccessibility.

Other plant communities crossed by this alternative between the San Bernardino National Forest and the Valley Substation include buckwheat scrub, mixed buckwheat-chamise chaparral, saltbush scrub, and

scattered patches of Riversidean sage scrub. These communities are most common on the lower slopes of the hills located south of Banning and Beaumont, in the hills adjacent to Highway 79, and in the Lakeview Mountains located between San Jacinto and Romoland. Non-native grasslands are also present as just grasslands and as mixed scrub/grassland communities through the Badlands between Beaumont and the San Jacinto Valley.

Scattered desert washes occur along the portion of the route from Devers Substation west to the areas south of Banning. These washes are either vegetated with creosote bush scrub or small patches of desert willow woodland. In addition to the desert washes, this alternative also traverses through Smith Creek, south of Banning, which is vegetated with a sparse riparian community and crosses the San Jacinto River in the San Jacinto Valley. Numerous smaller ephemeral drainages are present in the foothills of the San Jacinto Mountains, in the Badlands area, and in the Lakeview Mountains.

The ROW of this alternative crosses through developed areas at the base of the foothills southwest of Cabazon, east of Old Banning Idyllwild Road, south of Banning, and north of the Valley Substation. Scattered rural development also occurs in the areas south of Banning and Beaumont and in portions of San Jacinto and Romoland. Agricultural areas are crossed in the San Jacinto Valley between Gilman Springs Road and just south of Ramona Expressway and in portions of Romoland, located north of the Valley Substation.

Wildlife. The common species of wildlife that would be expected to occur along the route of the Devers-Valley Alternative are the same as those addressed in the Wildlife Overview in the Environmental Setting (Section D.2.1.1.2).

Special Status Plant and Wildlife Species.

Plants. One listed species of plant, the Coachella Valley milkvetch, is known to occur within the ROW of the Proposed Project and the corresponding ROW for the Devers-Valley No. 2 Alternative, near Devers Substation. This species could also potentially occur along the route of this alternative between Devers Substation and the foothills of the San Jacinto Mountains because suitable habitat is present in these areas.

Five listed plants species, including Munz's onion, San Diego ambrosia, San Jacinto Valley crownscale, Nevin's barberry, and Mojave tarplant, have a high to moderate potential to occur along the route of this alternative because suitable habitat is present and/or this species has been recorded in the vicinity of the ROW (see Table D.2-4 for details).

Forty-four species of sensitive plants also have a moderate to high potential for occurrence along the route of the Devers-Valley No. 2 Alternative (see Table D.2-4 for details) either because suitable habitat is present or an occurrence has been documented within the vicinity of the ROW. These species include:

- White-bracted spineflower
- chaparral sand-verbena
- Yucaipa onion
- Jaeger's milk vetch
- Parry's spineflower
- cliff spurge
- little San Bernardino Mountains gilia
- slender woolly-heads
- Plummer's mariposa lily
- Intermediate mariposa lily
- South coast saltscale
- Parish's chaenactis
- Rock draba
- Leafy buckwheat
- Mission Canyon bluecup
- Adder's mouth
- San Felipe monardella
- White-margined oxytheca
- California beardtongue
- Cliff cinquefoil
- Southern skullcap
- Southern jewel-flower
- Woven-spored lichen
- Smooth tarplant
- Long-spined spineflower
- Southern California black walnut
- Robinson's pepper-grass
- ocellated Humboldt lily
- Parish's bush mallow
- Hall's monardella
- California muhly
- Fish's milkwort
- Engelmann oak
- Coulter's matilija poppy
- San Miguel savory
- San Bernardino aster
- Parish's brittlescale
- Adram's spurge
- Arizona spurge
- Flat-seeded spurge/sandmat
- Foxtail cactus
- California bedstraw
- Spearleaf
- Little mousetail
- Sonoran maiden fern

Special Status Wildlife Species

The potentials for listed and sensitive species to occur along the route of the Devers-Valley No. 2 Alternative and the details regarding where the species have been observed in relation to the location of the alternative are listed in Table D.2-5 in the Environmental Setting.

Invertebrates. Two species of invertebrates, Coachella Valley giant sand-treader cricket and Coachella Valley Jerusalem cricket, have a high potential to occur along the Devers-Valley No. 2 Alternative between Devers Substation and the foothills of the San Jacinto Mountains. Suitable habitat for both species, which consists of active sand dunes and ephemeral sand fields, is present in a patchy distribution between Devers Substation and the foothills of the San Jacinto Mountains. These species are covered under the CVMSHCP.

Fishes and Amphibians. This Devers-Valley No. 2 Alternative does not cross any perennial streams that are considered suitable for any listed or sensitive fishes.

Two listed species of amphibians, the arroyo toad and mountain yellow-legged frog, are noted as meeting the criteria for a determination of a high potential for occurrence in portions of the Devers-Valley No. 2 Alternative. The arroyo toad was reported as occurring in Whitewater Canyon in 1992 but it is unknown if this species still occurs there. There is speculation that Snow Creek, located south of Highway 111 and just east of the Devers-Valley No. 2 Alternative. The mountain yellow-legged frog was historically found in Whitewater River and has recently been documented in the San Jacinto Mountains.

Two sensitive amphibian species, the coast range newt and western spadefoot, have a moderate to high potential to occur along this alternative because suitable habitat is present in portions of the ROW.

Reptiles. Two listed species of reptiles, the desert tortoise and Coachella Valley fringe-toed lizard, have been documented near the Devers Substation and in the portion of the Devers-Valley No. 2 Alternative located just west of Devers Substation. These species have a high potential to occur in the portion of the Devers-Valley No. 2 Alternative between Devers Substation and the foothills of the San Jacinto Mountains.

Two sensitive reptiles, the San Diego horned lizard and northern red diamond rattlesnake, have been observed in this in the eastern portion of the Devers-Valley No. 2 Alternative but they also have a high potential to occur along most of the route of this alternative.

Six sensitive reptile species have a high to moderate potential to occur in portions of the Devers-Valley No. 2 Alternative because suitable habitat is present and because the species has been documented in the vicinity of the ROW. These species include the flat-tailed horned lizard, Belding's orange-throated whiptail, silvery legless lizard, coast patch-nosed snake, rosy boa, southern rubber boa, and two-striped garter snake. The southern rubber boa may occur in the higher elevations in the San Jacinto Mountains portion of this alternative. The two-striped garter snake may occur in drainage areas that are seasonally wet or are tributaries to larger drainages. Suitable habitat for flat-tailed horned lizard, Belding's orange throated whiptail, rosy boa, and silvery legless lizard occurs in various areas along the route of this alternative.

Birds. Two listed species of bird, the least Bell's vireo and coastal California gnatcatcher, have a high potential to occur in habitat located in the vicinity of this alternative. Potentially suitable habitat for least Bell's vireo is present in Snow Creek, Potrero Creek, and in various drainages along the route between Beaumont and the Valley Substation. The California gnatcatcher has been reported in the Badlands near Laborde Canyon, which is less than a mile from the route of this alternative. This species has a high potential to occur in the sage scrub habitats located between Banning and the Valley Substation.

Two sensitive bird species, the Le Conte's thrasher and loggerhead shrike, have been observed near the Devers Substation. In addition, burrowing owls have been documented in close proximity to the ROW of this alternative between Devers Substation and Highway 111. Suitable habitat for these species is present along portions of the ROW. Fourteen additional sensitive bird species also potentially occur because suitable habitat is present and the species has been documented in the vicinity of this alternative. These species include:

- Cooper's hawk
- ferruginous hawk
- golden eagle
- northern harrier
- prairie falcon
- white-tailed kite
- brown-crested flycatcher
- vermillion flycatcher
- mountain plover
- California horned lark
- Yellow warbler
- Southern California rufous-crowned sparrow
- Bell's sage sparrow
- long-eared owl

Mammals. Two listed mammal species, the Stephens' kangaroo rat and the desert bighorn sheep, have a high potential for occurrence along the route of this alternative between Banning and the Valley Substation.

The Stephens' kangaroo rat is known to occur in the Potrero ACEC/Conservation Unit. In fact, one of the primary conservation goals for the Potrero Conservation Unit is the preservation of a large population of Stephens' kangaroo rat.

The Peninsular bighorn sheep is a federally endangered species, and has designated Critical Habitat through which the Devers-Valley No. 2 Alternative would pass.

One Federal Candidate species, the Palm Springs round-tailed ground squirrel, is known to occur in the vicinity of the western portion of this alternative. Suitable habitat for this species occurs in a patchy distribution between Devers Substation and the foothills of the San Jacinto Mountains.

Numerous sensitive mammal species have a high or moderate potential to occur in or adjacent to this alternative because suitable habitat is present and the species has been reported in the vicinity. These species include:

- pallid bat
- western mastiff bat
- pocketed free-tailed bat
- California leaf-nosed bat
- Townsend's big-eared bat
- Western yellow bat
- spotted bat
- Arizona myotis
- fringed myotis
- Yuma myotis
- cave myotis
- big free-tailed bat
- Peninsular bighorn sheep
- northwestern San Diego pocket mouse
- Pallid San Diego pocket mouse
- Palm Springs pocket mouse
- Los Angeles pocket mouse
- San Diego black-tailed jackrabbit
- American badger

Special Habitat Management Areas Overview

Section D.2.1.1.4 describes the Overview of Special Habitat Management Plans that apply to the Proposed Project and the alternatives. The following paragraphs provide a description of which of the plans apply to the Devers-Valley No. 2 Alternative.

California Desert Conservation Area Plan (1980). As described in Section D.2.1.1.4, the western border of the CDCA lies just west of Whitewater Canyon. Two BLM ACECs occur within or in the vicinity of the Devers-Valley No. 2 Alternative. The Whitewater Canyon ACEC, which is within the CDCA Planning Area, is located within the just north of the alignment of the Proposed Project where it crosses Whitewater Canyon. The Devers-Valley No. 2 Alternative does not intercept the Whitewater Canyon ACEC because the route diverges away from the Proposed DPV2 alignment to the east of Whitewater Canyon and southeast of the boundary of the Whitewater Canyon ACEC. The Potrero ACEC, which is located outside of the CDCA Planning Area, which is located south of Beaumont in the Badlands area of Western Riverside County.

Potrero Creek Conservation Unit – San Jacinto Wildlife Area. The Potrero Creek Conservation Unit of the San Jacinto Wildlife Area, which encompasses approximately 9,117 acres, is located in the San Jacinto Mountains south of the City of Beaumont and east of the San Jacinto Valley. This Conservation Unit overlaps with BLM's Potrero ACEC. The Devers-Valley No. 2 Alternative crosses through the northern portion of this Conservation Unit.

San Jacinto and Santa Rosa Mountains National Monument. The Devers-Valley No. 2 Alternative enters the National Monument after it crosses to the south side of Highway 111. The route would travel southwest up the San Jacinto Mountains and through the rugged terrain of the National Monument for approximately 2.8 miles, crossing Snow Creek (the ROW is adjacent to Snow Creek Road), and would enter the San Jacinto Wilderness that is located within the San Bernardino National Forest (although the transmission corridor itself has been removed from the wilderness). After approximately 0.5 miles within the San Jacinto Wilderness, the alternative would turn west-northwest and would travel an estimated 0.8 miles to exit the National Monument.

San Bernardino National Forest. The Devers-Valley No. 2 Alternative enters the San Jacinto Wilderness within the SBNF approximately 2.8 miles into the rugged terrain of the San Jacinto Mountains. As stated previously, the transmission corridor itself has been removed from the wilderness. After approxi-

mately 0.5 miles within the San Jacinto Wilderness, the alternative would turn west-northwest and would travel an estimated 1.2 miles to exit the SBNF and Wilderness area.

Western Riverside MSHCP. The Devers-Valley No. 2 Alternative traverses through Criteria Cells in the Potrero/Badlands Subunit of the Pass Area Plan and in the Gillman Springs/Southern Badlands Subunit of the San Jacinto Valley Area Plan. Portions of the length of this alternative within the Western Riverside County MSHCP planning area fall within the survey areas for burrowing owl, Los Angeles pocket mouse, San Bernardino kangaroo rat, and narrow endemic plant species. This alternative crosses the Proposed Core Number 3, which consists of the Badlands area that functions as a linkage between the San Bernardino National Forest, areas southwest of the forest in San Bernardino County, and other areas located north of this core area. In addition, this alternative crosses through the Proposed Non-contiguous Habitat Block Number 5 that is located in the Lakeview Mountains.

Final Draft Coachella Valley MSHCP. Like the Proposed Project, the Devers-Valley No. 2 Alternative traverses through a small portion of the Proposed Upper Mission Creek/Big Morongo Canyon Conservation Unit of the Draft Coachella Valley MSHCP. In addition, this alternative also traverses through the Proposed Whitewater Floodplain, Snow Creek/Windy Point, and Santa Rosa and San Jacinto Mountains Conservation Units in the areas south of the I-10 and south of Highway 111.

Impacts and Mitigation Measures – Vegetation

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation (Class II)

The Devers-Valley No. 2 Alternative would remove Sonoran desert scrub, dry desert wash woodland, brittlebush, buckwheat, and Riversidean sage scrub, mixed buckwheat-chaparral, and potentially riparian habitats located in the drainages along the route. In addition, this alternative would also impact sand dunes and active sand fields located south of the I-10. As stated for Impact B-1 in Section 2.6.1.1, the vegetation will be permanently removed at the locations of the tower footings. In addition, the construction areas around the tower sites may be temporarily disturbed, depending on the amount of area necessary for ongoing maintenance. The permanent loss and temporary disturbance of native vegetation communities resulting from the construction of this alternative would result in significant impacts. Loss of these communities would be considered a significant impact (Class II). Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) would be implemented by SCE to reduce impacts to less than significant levels.

Mitigation Measure for Impact B-1: Construction activities would permanently remove native vegetation

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species (Class II)

Construction impacts along the entire length of this alternative would be the same as described in Section (D.2.6.1.2). To reduce the potential for the introduction of invasive non-native or noxious weeds, SCE would implement APM B-2 (Standard Noxious Weed BMPs) and B-11, which would require hand clearing of vegetation in certain areas located along the ROW. This APM would facilitate the maintenance of existing root systems which may help to stabilize the soils against erosion and assist in the restoration of these areas if the plants resprout at the conclusion of project activities. SCE would also imple-

ment APM B-19, which would require the restoration of disturbed areas at the conclusion of construction. However, SCE has not indicated which areas would be subject to hand clearing or restoration at this time. The introduction of non-native plant species would be considered a significant impact (Class II). Implementation of the Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), and B-2b (Implement control measures for invasive and noxious weeds) would reduce impacts from the introduction of non-native plant species to less than significant levels.

Mitigation Measures for Impact B-2: Construction activities would result in the introduction of invasive non-native or noxious plant species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-2b Implement control measures for invasive and noxious weeds.

Impact B-3: Construction activities would create dust that may result in degradation to vegetation (Class III)

Construction activities would result in increased levels of blowing dust that may settle on the vegetation surrounding the construction areas. Increased levels of dust on the leaves of plants can decrease the photosynthetic capabilities of the plants. SCE would implement Title 1 measures (Air Quality) to decrease fugitive dust including reduced vehicle speeds, use of tackifiers, and periodic watering of the ROW. Watering will be done in such a way as to prevent pooling of water on the soil surface so that toad species would not be stimulated to emerge from their subsoil aestivation burrows prior to natural rain events. With the implementation of Title 1 rules the potential impacts of increased dust settling on plants is expected to be adverse but not significant (Class III).

Impacts and Mitigation Measures – Wildlife

Direct impacts on wildlife would be similar to those described in Section D.2.6.1.4.

Impact B-4: Construction activities and increased vehicular traffic on access roads would result in disturbance to wildlife species (Class III)

The direct loss of small mammals, reptiles, and other less mobile species would likely occur in the undeveloped areas along the length of this alternative. The loss of vegetation would also result in the temporary loss of breeding and foraging habitat for wildlife. Impacts from vehicle traffic and construction-related activities are the same as described in Section 2.6.1.4.

Except where undeveloped wildlife habitats are known to support rare, threatened, or endangered species, or nesting birds, all of the above-listed impacts on common wildlife from construction would generate potentially adverse but not significant impacts (Class III).

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds (Class II)

As described in Section 2.6.1.5, ground-disturbing activity, including tower pad preparation and construction and grading of new access roads, has the potential to disturb vegetation utilized by nesting birds. The removal of habitat during the breeding season would likely result in the displacement of breeding birds and the abandonment of active nests. Implementation of Mitigation Measure B-5a (Conduct pre-construction surveys and monitoring for breeding birds) would reduce impacts to nesting birds to less than significant levels (Class II).

Mitigation Measure for Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

Impacts and Mitigation Measures – Threatened or Endangered Plant or Wildlife Species

Construction impacts for threatened and endangered species would be same as described for vegetation and wildlife in Section D.2.6.1.6.

Impact B-6: Construction activities would result in indirect or direct loss of listed plants (Class II)

Threatened or Endangered Plants. The loss of individuals or known habitats of threatened, or endangered plant species would be considered a significant impact without mitigation. One listed plant species, the Coachella Valley milkvetch, is known to occur near the Devers Substation and could be directly affected by the construction of this alternative. In addition, five other State or federally listed, endangered, or threatened plant species have been identified as occurring within this alternative, including Munz's onion, San Diego ambrosia, San Jacinto Valley crownscale, Nevin's barberry, and Mojave tarplant, have a high to moderate potential to occur because suitable habitat is present. Impacts to listed plant species would be considered significant without mitigation (Class II). Mitigation Measure B-6a (Conduct surveys for listed plant species) would reduce potential impacts to a less than significant level.

Mitigation Measure for Impact B-6: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plant species

B-6a Conduct surveys for listed plant species.

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II and Class III)

The Devers-Valley No. 2 Alternative contains Sonoran desert scrub between the Devers Substation and the foothills of the San Jacinto Mountains that is likely to support desert tortoise, a federal- and State-listed threatened species. This species has been found in very low numbers in the areas located north of I-10 and West of Devers Substation. Focused protocol surveys were not conducted for this species along this portion of this alternative. This species may occur in the native habitats along this portion of the alternative route.

In addition, this eastern end of this alternative also contains desert scrub, desert wash, and succulent desert scrub habitats that could potentially support the Palm Springs round-tailed ground squirrel, a federal Candidate for listing and suitable habitat for the Coachella Valley fringe-toed lizard. Other listed species that have a potential to occur along this alternative are the least Bell's vireo (riparian habitat), California gnatcatcher (sage scrub and buckwheat scrub), and Stephens' kangaroo rat (grasslands and scrub habitats).

Within the San Bernardino National Forest, this alternative also includes Critical Habitat for the Peninsular bighorn sheep, a federally endangered species. As described above in the Environmental Setting for this alternative, with the exception of the aforementioned species, no other listed or candidate wildlife species were identified with the potential to occur along the route of this alternative.

Fish. This alternative does not contain standing water and the area does support populations of rare fish. Impacts to sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. Two listed species of amphibians, the arroyo toad and mountain yellow-legged frog, are noted as meeting the criteria for a determination of a high potential for occurrence in portions of the Devers-Valley No. 2 Alternative. The arroyo toad potentially occurs in Whitewater Canyon, which is not within the ROW for the Devers-Valley No. 2 Alternative. The habitat in the broad portion of Whitewater River, where the transmission line would cross, is not considered suitable habitat for this species so no impacts to this species would be expected. The mountain yellow-legged frog is present in isolated drainages in the San Jacinto Mountains. The ROW for this alternative does not cross the drainages where this species has been found. This species would not be impacted by the construction of this alternative because construction will not occur in the drainages where this species is known to occur. Impacts to sensitive amphibians would be considered less than significant (Class III) and no additional mitigation is proposed.

Reptiles. Construction of this alternative between Devers Substation and the foothills of the San Jacinto Mountains would impact Sonoran desert scrub habitat that may potentially support desert tortoises. Desert tortoise is a federal- and State-listed threatened species. This species has been found in very low numbers in the areas located north of I-10 and West of Devers Substation. Direct impacts from the activities associated with transmission line and access road construction include permanent and temporary removal of occupied and potential habitat, displacement of tortoises from portions of home ranges, removal of foraging habitat, damage to burrows, and mortality of tortoises. Indirect impacts that may result include degradation of habitat in areas adjacent to occupied habitat (introduction of non-native plant species and increased wind/water erosion) and harassment of tortoises resulting from increased presence of humans and vehicle/equipment. The take of desert tortoises, whether it results from direct or indirect impacts, would be considered a significant impact (Class II).

Potentially significant impacts to desert tortoise could be reduced by the implementation of APMs B-5, B-18, B-27, B-28, B-29, B-30, B-31, B-32, and B-35. These APMs would reduce impacts through worker education, inspection of parked vehicles, pre-construction surveys, biological monitoring, speed control on roads, avoidance of tortoise burrows, and relocation of tortoises from work areas. Although these APMs would lessen this impact to a certain degree, further protection measures are required to protect this species. Impacts to desert tortoise would be significant (Class II), but could be reduced to a less than significant level with mitigation. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), B-7c (Purchase mitigation lands for impacts to tortoise habitat) would be required to ensure that impacts to desert tortoise would be less than significant.

Critical Habitat. The alternative would pass through designated Critical Habitat for the Peninsular bighorn sheep. Construction of this alternative would not have any impact on designated critical habitat for the desert tortoise because the project area does not fall within the boundaries of designated Critical Habitat for this species. Similarly, construction will also not impact designated Critical Habitat for the arroyo toad or Mountain yellow-legged frog because the ROW does not cross any designated Critical Habitat for these species.

Birds. Construction of this alternative may directly impact suitable habitat for the California gnatcatcher and least Bell's vireo. The California gnatcatcher has been reported in the Badlands near Laborde Canyon, which is less than a mile from the route of this alternative. This species has a high potential to

occur in the sage scrub habitats located between Banning and the Valley Substation. The least Bell's vireo has a high potential to occur in riparian habitats that may be located within the ROW or in areas adjacent to the ROW. Potentially suitable habitat for least Bell's vireo is present in Snow Creek, Potrero Creek, and in various drainages along the route between Beaumont and the Valley Substation. Any impacts to listed species of birds would be considered significant (Class II). Implementation of Mitigation Measures B-5a (Conduct pre-construction surveys and monitoring for breeding birds) and B-7e (Conduct focused surveys for California gnatcatchers) would reduce the impacts to the listed bird species to less than significant.

Mammals. Construction of this segment may directly impact suitable habitat for the Stephens' kangaroo rat, Palm Springs round-tailed ground squirrel, and Peninsular bighorn sheep as a result of permanent and temporary removal of habitat.

The ground squirrel is known to occur between the Devers Substation and the foothills of the San Jacinto Mountains. The potential impacts to suitable habitat would be the same as those described for the Desert Southwest Transmission Project Alternative (Section D.2.7.4). APM B-25 addresses the avoidance of mesquite hummock habitat for the purpose of benefiting the Coachella Valley round-tailed squirrel Impacts to round-tailed squirrel are discussed under sensitive wildlife.

The Stephens' kangaroo rat is known to occur south of Banning and Beaumont, in suitable grassland and open scrub habitats in the foothills of the San Jacinto Mountains. A large population of this species is present in the Potrero area where this alternative will traverse through the Potrero Conservation Unit of the San Jacinto Wildlife Area. Without mitigation, the loss of habitat and individuals of Stephens' kangaroo rat would also result in significant impacts (Class II). APM B-16 provides for additional wildlife surveys and APM B-39 states that Stephens' kangaroo rat habitat would be avoided, where possible. Even with the implementation of these APMs, the impacts to these species would be considered significant (Class II). Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) and B-7f (Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat) would reduce impacts to a less than significant level.

Peninsular bighorn sheep may be present at the time of construction. Bighorn sheep in the vicinity of this alternative may be disturbed or scared off as a result of the construction noise, especially given the proposed use of helicopters for tower construction. These impacts would be temporary and limited to the construction phase of the project. To reduce potential impacts, construction vehicles would remain on established roads (APMs B-3 and B-17) to the maximum extent practicable in order to avoid unnecessary disturbances to wildlife, and vehicles would be required to drive at low speeds in tortoise habitat (APM B-29), which would also reduce the potential for collisions with other wildlife. Impacts to bighorn sheep that are present in and near the San Bernardino National Forest would be considered significant (Class II). Implementation of Mitigation Measure B-9f (Perform construction outside of breeding and lambing period) would reduce impacts to less than significant levels. Construction of this alternative would also comply with the CDFG and SBNF management policies for bighorn sheep.

Mitigation Measures for Impact B-7a: Construction activities would result in indirect impacts, a direct loss of individuals, a direct loss of habitat for listed plant and/or wildlife species, or impact designated or proposed critical habitat for a listed species

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

B-7b Conduct pre-construction tortoise surveys.

B-7c Purchase mitigation lands for impacts to tortoise habitat.

B-7e Conduct focused surveys for California gnatcatchers.

B-7f Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat.

B-9f Perform construction outside of breeding and lambing period.

State or Federal Species of Special Concern

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class II)

Plants. Construction of the Devers-Valley No. 2 Alternative would permanently and temporarily remove potentially suitable habitat for 44 species of sensitive plants that potentially occur along the length of the Devers-Valley No. 2 Alternative. Permanent removal of the vegetation at the locations of the tower footings and along he access and spur roads will occur. In addition, the construction areas around the tower sites may be temporarily disturbed, depending on the amount of area necessary for ongoing maintenance. The sensitive plants that could potentially occur along this alternative are listed below (refer to Table D.2-4 for specific details).

- White-bracted spineflower
- chaparral sand-verbena
- Yucaipa onion
- Jaeger's milk vetch
- Parry's spineflower
- cliff spurge
- little San Bernardino Mountains gilia
- slender woolly-heads
- Plummer's mariposa lily
- Intermediate mariposa lily
- South coast saltscale
- Parish's chaenactis
- Rock draba
- Leafy buckwheat
- Mission Canyon bluecup
- Adder's mouth
- San Felipe monardella
- White-margined oxytheca
- California beardtongue
- Cliff cinquefoil
- Southern skullcap
- Southern jewel-flower
- Woven-spored lichen
- Smooth tarplant
- Long-spined spineflower
- Southern California black walnut
- Robinson's pepper-grass
- ocellated Humboldt lily
- Parish's bush mallow
- Hall's monardella
- California muhly
- Fish's milkwort
- Engelmann oak
- Coulter's matilija poppy
- San Miguel savory
- San Bernardino aster
- Parish's brittlescale
- Adram's spurge
- Arizona spurge
- Flat-seeded spurge/sandmat
- Foxtail cactus
- California bedstraw
- Spearleaf
- Little mousetail
- Sonoran maiden fern

As described in Section D.2.6.1.7, to reduce potential impacts to sensitive plants SCE would implement APM B-8 (Pre-construction Surveys) and APM B-9 (Transplant Sensitive Cactus) which provides for detailed surveys of tower locations prior to construction. If sensitive plant species are located at the site, SCE has indicated that tower locations would be adjusted to reduce impacts. In order to reduce potential impacts to a less than significant level, Mitigation Measure B-8a (Conduct surveys for listed plant species) would be implemented.

Mitigation Measure for Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plant species

B-8a Conduct surveys for listed plant species.

Wildlife

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Class II and Class III)

Invertebrates. Construction of the portion of the Devers-Valley No. 2 Alternative between the Devers Substation and the foothills of the San Jacinto Mountains would result in the temporary and permanent removal of suitable habitat for Coachella Valley giant sand-treader cricket and Coachella Valley Jerusalem cricket. As described in the Environmental Setting (Section D.2.3), these two species potentially occur in dune habitats and ephemeral sand fields in the Coachella Valley. These two species do not have any State or federal sensitive designations but they are covered species under the Draft Coachella Valley MSHCP. If the Draft MSHCP is not finalized, then impacts to these species would not be significant and would not require mitigation. If the Draft MSHCP is finalized, then mitigation will be required to avoid significant impacts (Class II) resulting from temporary and permanent loss of habitat for these species. Mitigation would include conducting focused surveys for these species prior to construction to determine presence or absence and biological monitoring during construction. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-9a (Conduct pre-construction surveys), and B-9b (Conduct biological monitoring) would reduce the impacts to sensitive amphibians, if present, to less than significant.

Fish. This alternative does not contain standing water and the area does support populations of rare fish. Impacts sensitive fishes would be considered less than significant (Class III) and no additional mitigation is proposed.

Amphibians. Two sensitive amphibian species, the coast range newt and western Spadefoot toad, have a moderate to high potential to occur along this alternative because suitable habitat is present in portions of the ROW. Construction of the Devers-Valley No. 2 Alternative would have the potential to adversely impact western Spadefoot toad as a result of the permanent removal of suitable habitat and vehicle traffic. This is a highly cryptic species that breed in the ephemeral pools that form during the short but intense rainfall events that occur in this region. Because this species is rarely seen it is difficult to determine the presence of this species until after rain events. The coast range newt potentially occurs in the scrub and chaparral habitats surrounding drainages that receive seasonal flows and that provide suitable pools for breeding. This species may occur in the higher elevations in the San Jacinto Mountains. The removal of habitat and construction of the towers and laydown areas may result in the direct mortality of this species through mechanical crushing or habitat degradation. This potential impact would be considered significant (Class II). To reduce potential impacts to this species SCE would implement pre-construction surveys of the project area and conduct routine inspections of the ROW by qualified environmental monitors. Implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-9a (Conduct pre-construction surveys), and B-9b (Conduct biological monitoring) would reduce the impacts to sensitive amphibians, if present, to less than significant.

Reptiles. Construction of the Devers-Valley No. 2 Alternative would result in potential impacts to the San Diego horned lizard and northern red diamond rattlesnake, two sensitive reptile species that are known to occur in and adjacent to the ROW. In addition, construction may potentially impact six other sensitive reptiles, including flat-tailed horned lizard, Belding's orange-throated whiptail, silvery legless lizard, coast patch-nosed snake, rosy boa, southern rubber boa, and two-striped garter snake. Suitable habitat for these species occurs in the native habitats that occur along the length of this alternative. No other sensitive reptile species that were determined to have a potential to occur along the alignment of the Proposed Project (Table D.2-5 in the Environmental Setting) would be expected to occur along this

alternative because of lack of suitable habitat or because this alternative lies outside of the range of these species. The temporary and permanent loss of habitat and potentially the loss of individuals of the sensitive reptile species would be considered a significant impact (Class II). Implementation of APMs and Mitigation Measures B-9b (Conduct biological monitoring) and B-9d (Conduct pre-construction reptile surveys) would reduce potential impacts to sensitive reptiles to less than significant levels.

Birds. Construction of this alternative would cause direct and indirect impacts on sensitive bird species through permanent and temporary loss of suitable habitat and disturbance related to construction activities. Construction activities and the increased presence of humans may result in direct or indirect impacts to sensitive birds that potentially occur in the vicinity. Construction of this alternative would result in the permanent and temporary removal of suitable desert scrub habitat where two sensitive bird species (Le Conte's thrasher and loggerhead shrike) are known to occur. These two species have been observed in the areas around the Devers Substation. In addition, burrowing owls have also been observed in the areas between Devers Substation and Highway 111.

Suitable habitat for 14 other sensitive bird species also occurs along the length of the alternative (See Table D.2-5 for details). These species include:

- Cooper's hawk
- ferruginous hawk
- golden eagle
- northern harrier
- prairie falcon
- white-tailed kite
- brown-crested flycatcher
- vermillion flycatcher
- mountain plover
- California horned lark
- Yellow warbler
- Southern California rufous-crowned sparrow
- Bell's sage sparrow
- long-eared owl

This temporary and permanent loss of potential habitat would be considered a significant impact (Class II). Implementation of APMs and Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/ Compensation Plan), B-5a (Conduct pre-construction surveys and monitoring for breeding birds), and B-9e (Conduct pre-construction surveys and owl relocation) would reduce impacts to sensitive birds to less than significant levels.

Mammals. Construction of the Devers-Valley No. 2 Alternative would result in potential impacts to, or remove habitat for, a variety of sensitive mammal species that potentially occur along the route of the alternative. These species include:

- pallid bat
- western mastiff bat
- pocketed free-tailed bat
- California leaf-nosed bat
- Townsend's big-eared bat
- Western yellow bat
- spotted bat
- Arizona myotis
- fringed myotis
- Yuma myotis
- cave myotis
- big free-tailed bat
- northwestern San Diego pocket mouse
- Pallid San Diego pocket mouse
- Palm Springs pocket mouse
- Los Angeles pocket mouse
- San Diego black-tailed jackrabbit
- American badger

Disturbance to habitat would be similar to that described for the listed species. Construction activities would result in the removal of habitat that could support populations of these species. The loss of this habitat could affect foraging opportunities for small rodents and bats. However, many of these species are wide ranging

and forage across a large geographic area. Construction-related impacts to bat species could potentially occur in the hilly regions of the San Jacinto Mountains. Roosting or hibernacula sites have been identified in old buildings at the Potrero Conservation Unit site. Construction of the transmission line would be limited to daylight hours. Pallid bats could be impacted by night time travel on the existing access roads. These species are also very susceptible to disturbance and even hiking can result in the abandonment of roosts (Pierson and Brown, 1992). The permanent and temporary loss of habitat and potentially the loss of individuals would be considered a significant impact (Class II). Implementation of Mitigation Measure B-9h (Conduct pre-construction surveys for roosting bats) would reduce potential impacts to a less than significant level. Impacts to American badger are addressed in Section D.2.6.1.8.

Mitigation Measures for Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

B-1a Prepare and implement a Habitat Restoration/Compensation Plan.

B-5a Conduct pre-construction surveys and monitoring for breeding birds.

B-9a Conduct pre-construction surveys.

B-9b Conduct biological monitoring.

B-9d Conduct pre-construction reptile surveys.

B-9e Conduct pre-construction surveys and owl relocation.

B-9h Conduct pre-construction surveys for roosting bats.

State and Federal Jurisdictional Habitats

Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands (Class II)

Although a formal jurisdictional delineation was not conducted, numerous desert washes, ephemeral drainages, and several large drainage features (San Gorgonio Creek, Whitewater River, Scott Creek, and San Jacinto River) are located along the length of the Devers-Valley No. 2 Alternative. Although construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible (APMs B-7 and B-21 Avoid impacts to Wetland and Riparian Habitats), the maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the ACOE, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas. Therefore, any impact to jurisdictional waterways would be significant (Class II). Impacts to jurisdictional waters and wetlands would be reduced to less than significant levels with the implementation of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan).

Mitigation Measure for Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands

B-1a Prepare and implement a Habitat Restoration/Compensation Plan

Wildlife Corridors and Nursery Sites

Impact B-11: The alternative would adversely affect the movement of fish, wildlife movement corridors, or native wildlife nursery sites (No Impact)

The drainages along the route of this alternative consist of either dry desert washes that carry only intermittent or ephemeral flows in response to seasonal rain events or larger drainages that generally do not support perennial flows, except in exceptional rainfall years. The washes and drainages do not contain perennial flows that would be expected to support fish and other species that are dependent on permanent water sources. There are no known native wildlife nursery sites along the route of this alternative. Therefore, no impacts would be expected to the movement of fish and other species that are dependent upon water sources and no are expected to native wildlife nursery sites.

Impact B-12: The alternative would adversely affect linkages and wildlife movement corridors (No Impact)

Linkages and corridors facilitate regional animal movement, and are generally centered on waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Construction of this alternative is not expected to impact any specific linkages or wildlife movement corridors because no specific linkages are present along the route of this alternative. The Proposed Core Number 5 in the Western Riverside County MSHCP does not act as a specific linkage, rather it is a block of habitat that is situated between other important habitat areas.

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources (Class II)

The Devers-Valley No. 2 Alternative, as an individual section of the project, would traverse the Cities of Palm Springs, Banning, Beaumont, and San Jacinto, and unincorporated Riverside County, as well as the jurisdictions of the BLM and U.S. Forest Service. The plans developed by these jurisdictions were assessed to determine if any biological resources policies would apply to the construction and operation of this alternative. The Policy Screening Report (Appendix 2) evaluated all applicable policies associated with this alternative and identified those policies that required further evaluation in this EIR/EIS. Policies from several of these plans that required further evaluation and that are also applicable to the Proposed Project are discussed in Table D.2-13 in Section D.6.2.1.11. The Devers-Valley No. 2 Alternative would be consistent with all of these policies, except the construction of the portion of the project in the San Gorgonio River/San Bernardino–San Jacinto Mountains Linkage would conflict with the provisions of the Western Riverside County MSHCP and this would be a potentially significant impact (Class II). Implementation of Mitigation Measures B-13a (Demonstrate compliance with the Western Riverside County MSHCP) and B-13b (Implement the Best Management Practices required by the Western Riverside County MSHCP) would result in compliance with the provisions of the Western Riverside County MSHCP.

Mitigation Measures for Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources

B-13a Demonstrate compliance with the Western Riverside County MSHCP.

B 13b Implement the Best Management Practices required by the Western Riverside County MSHCP.

The Devers-Valley No. 2 Alternative would also traverse several jurisdictions, including San Bernardino National Forest, portions of unincorporated Riverside County, and the City of San Jacinto, that the

Proposed Project would not traverse. The plans developed by these jurisdictions were also assessed to determine if any biological resources policies would apply to the construction and operation of this alternative. Several policies were determined to require further analysis in this EIR/EIS, and these polices are identified and discussed below in Table D.2-13.

Table D.2-13. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
City of Palm Springs *Applicable Segment: Devers-Valley No. 2 Alternative*	City of Palm Springs General Plan (1993)		
	Policy 5.3.3: Encourage the preservation and maintenance of natural flood plain areas and the provision of development standards which will ensure the percolation of water runoff for the replenishment of the natural water table, proper drainage and the prevention of flood damage, and the preservation of plant and animal habitats.	Yes	The Devers-Valley No. 2 Alternative would not preclude the preservation and maintenance of natural flood plain areas. SCE would implement APMs B-19 and B-21, which would minimize disturbance to riparian areas, and would provide for the restoration of any affected areas. SCE would also implement APM B-7 and B-26, which prohibits project activities from occurring in wetland areas and would span wash communities. In addition, SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. Further, SCE would implement APMs W-2 and W-5, which would prevent construction equipment from being placed in stream channels and avoid active drainage channels.
	Policy 5.5.4: Encourage the preservation of ecologically important areas where surrounding wildlife and plant life are dependent on water. Watering holes, where appropriate, shall be maintained and supplemented with a permanent water supply, as such supply is available due to proximate of the animals during the dry summer season when the natural water supply may disappear. Except on the advice of a qualified biologist, grading shall not be allowed nor shall any structure be built within 100 yards of naturally occurring surface water that has been shown to persist for five or more months in any single year. A detailed hydrological study of any project that drills a well or utilizes any other natural water resource at any elevation higher than 600 feet above sea level shall be required.	Yes	The Devers-Valley No. 2 Alternative would not preclude the preservation of ecologically important areas within the City of Palm Springs, nor would it utilize natural water resources in the area. However, SCE would implement APMs B-19 and B-21, which would minimize disturbance to riparian areas, and would provide for the restoration of any affected areas. SCE would also implement APM B-7 and B-26, which prohibits project activities from occurring in wetland areas and would span wash communities. In addition, SCE would implement APMs B-1, B-8, B-12 and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities, or features. Further, SCE would implement APMs W-2 and W-5, which would prevent construction equipment from being placed in stream channels and avoid active drainage channels.

Table D.2-13. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	Policy 5.5.7: Native trees or plants should not be removed if such removal has a significant negative impact on soil retention, soil erosion and sediment control measures, scenic routes, flood and surface water runoff, and wildlife habitats. A native tree or plant may be removed if it interferes with the reasonable improvement of a site or the planned improvement of a street or access, if it is a hazard to pedestrian or vehicular travel, if it interferes with or is causing extensive damage to public services or facilities, or if it will sustain damage due to its location to an existing or proposed structure.	Yes	As part of the project, the final determination for new roads would avoid large trees and other natural features. In addition, SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features.
	Policy 5.5.8: Plant species native to the immediate region shall be used in all landscaping located in or adjacent to natural open space areas. Exotic plant species, such as fountain grass, Tamarisk, the Mexican Fan Palm and exotic cactus species, shall be prohibited within 100 feet of undisturbed areas.	Yes	The Devers-Valley No. 2 Alternative would not plant vegetation, except during the restoration of disturbed areas. As part of project, SCE would implement Mitigation Measure B-1a, which would require restoration of disturbed areas, and would utilize a CPUC/BLM approved seed mix that most likely would consist of native plant species.
U.S. Forest Service	Forest Service, Pacific Southwest Region: Land Management Plan: Part 1 Southern California National Forests Vision		
Applicable Segment: Devers-Valley No. 2 Alternative	Goal 6.2. Provide ecological conditions to sustain viable populations of native and desired non native species.	Yes	The Devers-Valley No. 2 Alternative would not preclude the continued existence of viable populations of native and desired non native species. SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features.
U.S. Forest Service	Forest Service, Pacific Southwest Region: Land Management Plan: Part 2 San Bernardino National Forest Strategy		
Applicable Segment: Devers-Valley No. 2 Alternative	WL 2 – Management of Species of Concern Goal. Maintain and improve habitat for fish, wildlife, and plants, including those with the following designations: game species, harvest species, management indicator species, and watch list species.	Yes	The Devers-Valley No. 2 Alternative would be located within an existing utility corridor (SCE Devers-Valley No. 1 500 kV) that was previously approved by the SBNF. However, SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, SCE would also implement several APMs that would minimize impacts to listed species, including desert tortoise, least Bell's vireo, and Coachella Valley fringe-toed lizard, and California gnatcatcher and Stephen's kangaroo rat, which are either known to occur or have the potential to occur in the Devers-Valley No. 2 Alternative.

Table D.2-13. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
U.S. Forest Service	Forest Service, Pacific Southwest Region: Land Management Plan: Part 3 Design Criteria for the Southern California National Forests		
Applicable Segment: Devers-Valley No. 2 Alternative	Plan Standard S12: When implementing new projects in areas that provide for threatened, endangered, proposed, and candidate species, use design criteria and conservation practices (see Appendix H) so that discretionary uses and facilities promote the conservation and recovery of these species and their habitats. Accept short-term impacts where long-term effects would provide a net benefit for the species and its habitat where needed to achieve multiple-use objectives.	Yes	The Devers-Valley No. 2 Alternative would be located within an existing utility corridor (SCE Devers-Valley No. 1 500 kV). However, SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, SCE would also implement several APMs that would minimize impacts to listed species, including desert tortoise, least Bell's vireo, and Coachella Valley fringe-toed lizard, and California gnatcatcher and Stephen's kangaroo rat, which are either known to occur or have the potential to occur in the Devers-Valley No. 2 Alternative.
	Plan Standard S18: Protect known active and inactive raptor nest areas. Extent of protection will be based on proposed management activities, human activities existing at the onset of nesting initiation, species, topography, vegetative cover, and other factors. When appropriate, a no-disturbance buffer around active nest sites will be required from nest-site selection to fledging.	Yes	No raptor nest areas have been documented in the SBNF portion of the Devers-Valley No. 2 Alternative. However, SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, as part of the project, SCE would implement APM B-5a, which would require pre-construction surveys and monitoring for breeding birds to be performed. If breeding birds with an active nest was found, a 500-foot buffer would be established around the nest excluding all construction activities and placement of structures.
	Plan Standard S22: Except where it may adversely affect threatened and endangered species, linear structures such as fences, major highways, utility corridors, bridge upgrades or replacements, and canals will be designed and built to allow for fish and wildlife movement.	Yes	The Devers-Valley No. 2 Alternative would be located within an existing utility corridor (SCE Devers-Valley No. 1 500 kV); therefore the issue of fish and wildlife movement would have been considered at its establishment. However, SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. The siting of towers to avoid sensitive features would allow wildlife movement corridors to remain.

Table D.2-13. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
	Plan Standard S31: Design new facilities or expansion of existing facilities to direct public use away from occupied habitat for threatened, endangered, proposed and candidate species.	Yes	The Devers-Valley No. 2 Alternative would not preclude the continued existence of viable populations of native and desired non native species. SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. These APMs would allow SCE to avoid identified sensitive natural resources when siting the towers. In addition, the Proposed Project identifies Mitigation Measure B-8a (SCE Shall Conduct Surveys for Listed Plant Species), which would identify and avoid locations of listed plant species; or, if necessary, transplant certain plant individuals.
Riverside County *Applicable Segment: Devers-Valley No. 2 Alternative*	Riverside County Comprehensive General Plan, Harvest Valley/Winchester Area Plan (2003)		
	HVWAP 19.3 Conserve existing populations of the California gnatcatcher and Bell's sage sparrow in the Harvest Valley/Winchester planning area, including locations in the North Domenigoni Hills. Conservation should focus on coastal sage scrub and grassland patches in addition to riparian habitats associated with upper Warm Springs Creek.	Yes	The Devers-Valley No. 2 Alternative would not preclude the conservation of California gnatcatcher and Bell's sage sparrow. SCE would implement APM B-37, which would require avoidance of suitable California gnatcatcher habitat, and restoration and/or participation in a land set-aside program if this is not possible. However, SCE would also implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. Also implementation of APM B-21 would require the avoidance of riparian habitats.
	HVWAP 19.7 Conserve and maintain vernal pool complexes and hydrology that supports Riverside fairy shrimp and other rare, threatened and endangered species known to exist within the Harvest Valley/Winchester planning area to promote genetic diversity through wildlife movement.	Yes	SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, implementation of APMs B-7 and B-21 would minimize disturbance to wetland and riparian areas. No Riverside fairy shrimp are known to occur or have the potential to occur within the project area.

Table D.2-13. Consistency with Biological Resources Plans and Policies

Agency Regulating Land Use	Regulation or Policy	Project Consistent?	Basis for Consistency
City of San Jacinto	City of San Jacinto Draft General Plan (2006)		
Applicable Segment: Devers-Valley No. 2 Alternative	Policy 1.3: Conserve and protect important plant communities and wildlife habitats, such as riparian areas, wetlands, vernal pools, oak woodlands and other significant tree stands, and rare and endangered species.	Yes	SCE would implement APMs B-1, B-8, B-12, and B-13, which would require the completion of surveys to identify sensitive features sites, provide for the avoidance of any highly sensitive features, and provide for the siting of towers to avoid sensitive plants/plant communities and other features. In addition, implementation of APMs B-7 and B-21 would minimize disturbance to wetland and riparian areas. As part of the project, various other APMs, such as APMs B-3, B-4, B-22, B-24, and B-27 through B-39, minimize issues to specific species, including desert tortoise, California gnatcatcher, and least Bell's vireo.

As part of the larger project, this alternative would follow the same route and would traverse the same jurisdictions as the Proposed Project from MP 0 to Devers Substation. Section D.2.6.1.11 discusses the biological policies from these jurisdictions along the remainder of the proposed route that were evaluated further in this EIR/EIS. The Devers-Valley No. 2 Alternative would be consistent with all the policies developed by these other jurisdictions.

Impact B-14: Operation of the transmission line may result in electrocution of listed bird species (Class III)

Potential impacts to birds from electrocution are discussed in Section D.2.6.2 and would be the same as the Proposed Project. The majority of raptor electrocutions are caused by lines that are energized at voltage levels between 1 kV and 69 kV and "the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low" (APLIC, 1996) and would be considered a less than significant impact (Class III).

Impact B-15: Operation of the transmission line may result in line collisions by listed bird species (Class II)

Bird collisions with power lines would be the same as the Proposed Project. It is difficult to predict the magnitude of collision-caused bird mortality without extensive information on bird species and movements in the vicinity of the alternative. These data are not available for the alternative transmission line study area. However, it is generally expected that collision mortality would be greatest where the movements of susceptible species are the greatest. The operation of the alternative may result in mortality of listed or sensitive bird species and this would be considered a significant impact (Class II). Implementation of Mitigation Measure B-15a (Utilize collision-reducing techniques in installation of transmission lines) would minimize the potential for line collisions by listed and sensitive bird species such that impacts would be reduced to a less than significant level.

Mitigation Measure for Impact B-15: Operation of the transmission line may result in line collisions by listed bird species

B-15a Utilize collision-reducing techniques in installation of transmission lines.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. Common ravens are known to prey upon wildlife species that may be listed or may be considered sensitive. The increase in the number of towers that will result from the transmission facilities associated with the alternative will result in an increase in potential nesting sites for common ravens. APM B-20 states that "all transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS Division of Law Enforcement to "take" common ravens or their nests." This APM partially reduces the impacts of common ravens on listed and sensitive wildlife species. However, the impacts may still remain significant (Class II) if SCE does not check the towers and remove nests on a regular basis and if SCE removes other nests that are actively utilized by other raptors. Mitigation Measure B-16a (Prepare and implement a raven control plan) would minimize the impacts of ravens on listed and sensitive wildlife species to less than significant levels.

Mitigation Measure for Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

B-16a Prepare and implement a raven control plan.

Impact B-17: Wildlife mortality resulting from traffic on access roads (Class III)

Operation of the Devers-Valley No. 2 Alternative will require regular maintenance of the various facilities associated with the project. Maintenance activities require the use of access and spur roads by vehicles and equipment. The operations and maintenance activities will be conducted at about the same frequency as currently exists for the DPV1 transmission line. SCE has indicated that vehicle speeds would be limited to a maximum of 25 mph in desert tortoise habitat (APM B-29). The implementation of this APM, and the approximate same level of use of the roads as currently exists for operation and maintenance activities, will result in a similar impact to what currently exists. Although impacts to some wildlife from vehicle usage may occur on the access roads, this impact would be considered adverse but not significant (Class III).

D.2.9 Environmental Impacts of the No Project Alternative

The No Project Alternative is defined in Section C.6. The No Project Alternative includes the assumption that existing transmission lines and power plants would continue to operate. The effects that these facilities cause on the existing environment would not change, so no new impacts would occur from continuing operation of the existing transmission lines and power plants. Also, under the No Project Alternative, the proposed DPV2 project would not be constructed, so the impacts associated with construction and operation of the project (e.g., placement of new transmission towers and removal of existing towers, construction of new access roads and improvements to existing roads, and work at conductor tensioning/splicing and staging/laydown areas) would not occur. Avoided impacts would include temporary disturbance and/or permanent loss of sensitive vegetation communities and listed and sensitive plant and animal species.

The first component of the No Project Alternative is the continuation of ongoing demand-side actions, including energy conservation and distributed generation. These actions would result in a shift in energy

use to off-peak periods, and the installation of distributed generation systems for small business and retail customers of electricity. The construction and operation of these future distributed generation systems would potentially require the removal of habitat that could result in the direct mortality of listed and sensitive wildlife and plant species.

The second component of the No Project Alternative is the continuation of supply-side actions, resulting in potentially increased generation within California or increased transmission into California to serve anticipated growth in electricity consumption. The impacts of new power plants and new transmission lines to biological resources would be similar to the Proposed Project. Depending on the location of new generation and transmission infrastructure, listed and sensitive wildlife and plant species would be impacted during construction and operational activities. If new facilities require the removal of existing vegetation and disturbance of surface soils, construction of these facilities would negatively affect various habitats, special status species, and special management areas. At this time, there is no specific proposal or assumption regarding the amount of generation or the location of the generation under the No Project Alternative.

D.2.10 Mitigation Monitoring, Compliance, and Reporting Table

Table D.2-14 presents the mitigation monitoring table for Biological Resources

Table D.2-14. Mitigation Monitoring Program – Biological Resources

IMPACT B-1	Construction activities would result in temporary and permanent loss of native vegetation
MITIGATION MEASURE	B-1a: Prepare and implement a Habitat Restoration/Compensation Plan. SCE shall restore all areas disturbed by project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations that are removed during construction of the Proposed Project. Where onsite restoration is planned for mitigation of temporary impacts to sensitive vegetation communities, SCE shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC/BLM. Hydroseeding shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC/CDFG/ADGF/FWS and BLM (on BLM lands). SCE shall flag the limits of disturbance at each construction site. In project areas that occur in the WRCMSHCP plan area, SCE shall use the applicable Best Management Practices identified in the WRCMSHCP. The creation or restoration of habitat shall be monitored for five years after mitigation site construction, or until established success criteria are met, to assess progress and identify potential problems with the restoration site. Remedial activities (e.g., additional planting, weeding, or erosion control) shall be taken during the monitoring period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise noted by the CPUC/BLM.
Location	All areas disturbed by construction activities, including temporary disturbances.
Monitoring / Reporting Action	BLM and CPUC/CDFG to review findings and restoration success submitted by the approved Habitat Restoration Specialist.
Effectiveness Criteria	Temporary and permanently impacted native vegetation communities shall be restored to pre-construction conditions within 5 years as measured by compliance with success criteria.
Responsible Agency	BLM and CPUC.
Timing	Prior to and after construction, as appropriate.
MITIGATION MEASURE	B-1b: Coordinate tower placement with USFWS/BLM. Where the proposed route crosses the Kofa National Wildlife Refuge, SCE shall coordinate with the U.S. Fish and Wildlife Service, Division of Refuges' refuge management personnel to determine specific tower site and spur road locations in order to minimize habitat disturbance and/or the loss of valuable habitat features. SCE shall demonstrate compliance with this measure prior to construction.
Location	All locations of the proposed route within the Kofa National Wildlife refuge.
Monitoring / Reporting Action	Tower and spur locations to be submitted to and approved by the BLM and USFWS.
Effectiveness Criteria	Tower sites and spur roads are located in areas where habitat disturbance can be minimized.
Responsible Agency	BLM, CPUC and USFWS Division of Refuges.
Timing	Prior to construction.

Table D.2-14. Mitigation Monitoring Program – Biological Resources

IMPACT B-2	Construction activities would result in the introduction of invasive non-native or noxious plant species
MITIGATION MEASURE	B 2a: Conduct invasive and noxious weed inventory. SCE shall survey the project corridor, including access roads, for populations of invasive and noxious weeds prior to the start of construction. All populations of invasive and noxious weeds within 500 feet of each tower location shall be flagged prior to construction. The Applicant shall submit a Noxious Weed Control Plan to BLM, CPUC, ADGF, CDFG, and/or USFWS at least 60 days prior to the start of construction. The weed control plan shall specify the location of existing weed populations; measures to control introduction and spread of noxious weeds in the project corridor; worker training, specifications, and inspection procedures for construction materials and equipment used in the project corridor; post-construction monitoring for noxious weeds; and eradication and control methods. Known populations of invasive and noxious weeds in the project corridor shall be evaluated by BLM, CPUC, CDFG, and USFWS to identify candidates for eradication. Selected weed populations shall then be eradicated prior to construction. All seeds and straw material shall be certified weed free. All gravel and fill material used during project construction and maintenance shall be certified weed free by the local County Agriculture Commissioner's Office.
Location	All locations along the proposed route that occur on BLM land will be surveyed.
Monitoring / Reporting Action	Biological monitor to conduct pre-construction surveys, evaluate impacted areas and implement mitigation measures.
Effectiveness Criteria	Successful protection from the introduction or establishment of noxious weeds in post-construction areas.
Responsible Agency	BLM, CPUC, ADGF, CDFG, USFWS.
Timing	Prior to construction.
MITIGATION MEASURE	B-2b: Implement control measures for invasive and noxious weeds. SCE shall adhere to the BLM management guidelines for reducing the potential for the introduction of noxious weeds and invasive, non-native plant species on the BLM lands by implementation of the following standards: • Wash all equipment and vehicles. Vehicles and all equipment must be washed BEFORE AND AFTER entering all project sites. This includes wheels, undercarriages, bumpers and all parts of the vehicle. In addition, all tools such as chain saws, hand clippers, pruners, etc., must also be washed BEFORE AND AFTER entering all project sites. For example, vehicles traveling into contaminated areas are the main dispersal mechanism for yellow star-thistle. All washing must take place where rinse water is collected and disposed of in either a sanitary sewer or a landfill. • Keep written logs. When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used and staff present. The log shall contain the signature of the responsible crewmember. • Written logs will be available for CPUC/BLM inspection and shall be turned in to BLM on a weekly basis.
Location	Entire project area within BLM land.
Monitoring / Reporting Action	Biological monitor to evaluate impacted areas and implement mitigation measures.
Effectiveness Criteria	Successful protection from the introduction or establishment of noxious weeds in post-construction areas.
Responsible Agency	BLM and CPUC.
Timing	Prior to and during construction.

Table D.2-14. Mitigation Monitoring Program – Biological Resources

IMPACT B-5	Construction activities during the breeding season would result in a potential loss of nesting birds
MITIGATION MEASURE	B-5a: Conduct pre-construction surveys and monitoring for breeding birds. SCE shall conduct protocol level surveys for nesting birds if construction activities are scheduled to occur during the breeding season for raptors and other migratory birds. Surveys shall be conducted in areas within 500 feet of tower sites, laydown/staging areas, substation sites, and access road/spur road locations. SCE shall be responsible for designating a CPUC/BLM-approved qualified biologist who can conduct pre-construction surveys and monitoring for breeding birds. If breeding birds with active nests are found, a biological monitor shall establish a 500-foot buffer around the nest and no activities will be allowed within the buffer until the young have fledged from the nest or the nest fails. The biological monitor shall conduct regular monitoring of the nest to determine success/failure and to ensure that project activities are not conducted within the 500-foot buffer until the nesting cycle is complete or the nest fails. The biological monitor shall be responsible for documenting the results of the surveys and the ongoing monitoring.
Location	Entire project area.
Monitoring / Reporting Action	Biological monitor shall oversee surveys and monitoring, and if necessary, ensure compliance with mitigation measures.
Effectiveness Criteria	Successful avoidance of breeding birds.
Responsible Agency	BLM, FWS, CDFG and CPUC.
Timing	Prior to and during construction, as appropriate.
IMPACT B-6	Construction activities would result in indirect or direct loss of listed plants
MITIGATION MEASURE	B-6a: Develop a transplanting plan. In coordination with the BLM, SCE shall prepare a transplanting plan in compliance with both Arizona and California laws and regulations regarding native and sensitive plants, prior to project construction activities. The plan will provide details on the plants being transplanted, including which species and how many individuals of each species; where the plants will be transplanted; how the plants will be transplanted; how the plants will be maintained during the transplanting efforts; and if the plants will be used to re-vegetated disturbed areas of the construction site. As a condition of the plan, a pre-construction survey will be conducted to mark (using bright-colored flagging) all plants that will be transplanted. Some cacti will need to be transplanted facing the same direction as they currently face (in other words, the north side of the plant must stay facing the north); these cacti will be identified in the plan and appropriately marked to identify which side faces north.
Location	In both Arizona and California portions of the project.
Monitoring / Reporting Action	Transplanting plan will be submitted for approval and executed accordingly.
Effectiveness Criteria	Successful transplantation of listed plants.
Responsible Agency	BLM and CPUC.
Timing	Prior to, during, and after construction, as appropriate.
IMPACT B-7	Construction activities would result in indirect or direct loss of listed wildlife or habitat
MITIGATION MEASURE	B-7a: Avoid Colorado River. All tower pads, equipment laydown areas, and pulling sites would be located outside flowing portions of the Colorado River and flowing tributaries of the river.
Location	Colorado River area.
Monitoring / Reporting Action	Biological monitor shall ensure all construction related activities avoid the Colorado River and all flowing tributaries.
Effectiveness Criteria	Successful avoidance of the Colorado River.

Table D.2-14. Mitigation Monitoring Program – Biological Resources

Responsible Agency	BLM and CPUC.
Timing	Prior to construction.
MITIGATION MEASURE	B-7b: Conduct pre-construction tortoise surveys. Prior to construction, SCE shall survey the transmission line corridor for desert tortoise burrows and pallets within fourteen (14) days preceding construction. Tortoise burrows and pallets encountered within the construction zone (if any) will be conspicuously flagged by the surveying biologist(s) and avoided during all construction activities. • During construction activities, SCE shall inspect under equipment and vehicles prior to moving equipment. If tortoises are encountered, the vehicle will not be moved until such animals have voluntarily moved to a safe distance away from the parked vehicle or a qualified biologist moves the tortoise. • SCE shall monitor construction activities in all areas with the potential to support desert tortoise. • Desert tortoises will be handled only by a FWS/CDFG permitted and authorized tortoise handler and only when necessary. New latex gloves will be used when handling each desert tortoise to avoid the transfer of infectious diseases between animals. Desert tortoises will be moved the minimum distance possible within appropriate habitat to ensure their safety. In general, desert tortoises will not be moved in excess of 1,000 feet for adults and 300 feet for hatchlings. • Desert tortoises that are found above ground and need to be moved will be placed in the shade of a shrub. All desert tortoises removed from burrows will be placed in an unoccupied burrow of approximately the same size as the one from which it was removed. All excavation of desert tortoise burrows will be done using hand tools, either by, or under the direct supervision of, an authorized tortoise handler. If an existing burrow is unavailable, an authorized tortoise handler will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original burrow. Desert tortoises moved during inactive periods will be monitored for at least two days after placement in the new burrows to ensure their safety. An authorized tortoise handler will be allowed some judgment and discretion to ensure that survival of the desert tortoise is likely. • If desert tortoises need to be moved at a time of the day when ambient temperatures could harm them (less than 40 degrees F or greater than 90 degrees F), they will be held overnight in a clean cardboard box. These desert tortoises shall be kept in the care of an authorized tortoise handler under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes will be appropriately discarded after one use. • All desert tortoises moved will be marked for future identification. An identification number using the acrylic paint/epoxy covering technique should be placed on the fourth costal scute. No notching would be authorized.
Location	All locations along the proposed route that support desert tortoise.
Monitoring / Reporting Action	Biological monitor shall oversee surveys and monitoring, and if necessary, ensure compliance with mitigation measures.
Effectiveness Criteria	Successful avoidance of tortoise impacts.
Responsible Agency	BLM, CPUC, USFWS, and CDFG.
Timing	Prior to and during construction, as appropriate.
MITIGATION MEASURE	B-7c: Purchase mitigation lands for impacts to tortoise habitat. Following construction, SCE shall acquire lands to compensate for the loss of tortoise habitat within the Category II and III management areas in Arizona and California. The amount of land to be acquired will depend on the acreage of disturbance within these management areas. Acquired lands will be in a nearby area of good tortoise density and within tortoise habitat. BLM and SCE shall conduct a field inspection of the disturbed areas after completion of construction of the transmission line to determine the exact acreage required for compensation. The lands purchased will be transferred to the United States and be administered by the BLM. Land may be transferred to the BLM and/or incorporated into an existing management area.
Location	All locations along the proposed route.
Monitoring / Reporting Action	BLM and SCE will assess amount of land to be acquired based on acreage of disturbance.
Effectiveness Criteria	Purchased land successfully transferred to BLM or an existing management plan.

Table D.2-14. Mitigation Monitoring Program – Biological Resources

Responsible Agency	BLM and CPUC.
Timing	After construction.
MITIGATION MEASURE	B-7d: Purchase mitigation lands for impacts to fringe-toed lizard habitat. SCE shall purchase or enhance lands for all permanent loss of habitat that are within the Coachella Valley fringe-toed lizard Critical Habitat unless otherwise directed by the USFWS Biological Opinion for the Proposed Project. Mitigation Lands shall be determined in consultation with the USFWS, CDFG, and CPUC.
Location	All locations of the proposed route within the Coachella Valley fringe-toed lizard Critical Habitat that experienced permanent loss due to construction activities.
Monitoring / Reporting Action	USGWS, CDFG, and CPUC will determine amount of land to be mitigated.
Effectiveness Criteria	Land successfully purchased or enhanced and transferred to BLM or an existing management plan.
Responsible Agency	BLM, CDFG, USGWS, and CPUC.
Timing	After construction.
MITIGATION MEASURE	B-7e: Conduct focused surveys for California gnatcatchers. SCE shall conduct protocol level surveys for California Gnatcatchers in all areas supporting suitable coastal sage or Riversidean sage scrub habitats that may be affected by the project (San Bernardino to Vista Substation and San Bernardino Junction to San Bernardino Substation). This will include a minimum 300 foot buffer around construction areas. Presence/absence of this species shall be determined prior to construction activities. If direct impacts to coastal California gnatcatcher occupied habitat cannot be avoided, then impacts to this species shall be addressed through either the Section 7 or Section 10(a)(1)(B) Process under the Federal Endangered Species Act of 1973, as amended and consistent with the WRCMSHCP. SCE shall complete compliance with the Federal Endangered Species Act prior to Project construction. After definition of suitable habitat, the following requirements apply: • Construction activities shall be restricted within coastal sage scrub habitat during the gnatcatcher breeding season (March 15 July 31); • SCE shall implement the applicable Best Management practices in the WRSMSHCP; • SCE shall restore, create, or enhance on site coastal sage scrub habitat; and/or • SCE shall purchase land or mitigation bank credits at an appropriate ratio to offset impacts to gnatcatchers and their habitat.
Location	All locations of the project area that support suitable coastal sage scrub habitat.
Monitoring / Reporting Action	Biological monitor shall oversee surveys and monitoring, and if necessary, ensure compliance with mitigation measures.
Effectiveness Criteria	Successful avoidance or mitigation of California gnatcatcher impacts.
Responsible Agency	BLM, CDFG, USFWS, and CPUC.
Timing	Prior to and during construction, as appropriate.
MITIGATION MEASURE	B-7f: Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat. Prior to the implementation of construction in areas that support suitable habitat for Stephens' kangaroo rat and San Bernardino kangaroo rat (Calimesa and San Timoteo Canyon). SCE shall conduct focused surveys to determine if sign (burrows, scat, and etc.) of these species is present in all areas within 100 feet that would be permanently or temporarily affected by construction activities. All surveys shall be conducted by a qualified biologist who holds the appropriate Federal FWS permits to conduct trapping surveys for these species. If sign is found to be present, then SCE shall conduct focused trapping surveys according to accepted protocols to determine presence/absence of these species. If these species are found, then SCE shall implement measure to avoid direct impacts, including the placement of exclusion fencing around work areas where impacts will occur, trapping of animals from inside impact areas, and placement of those animals outside of exclusion fencing until construction is completed. A qualified biological monitor shall be present during construction to ensure that animals are not harmed. Following completion of construction, SCE shall remove all exclusion fencing and recontour the soils to the pre-construction condition.

Table D.2-14. Mitigation Monitoring Program – Biological Resources

Location	All locations of the project area that support suitable habitat for Stephan's kangaroo rat and San Bernardino kangaroo rat.
Monitoring / Reporting Action	Biological monitor shall oversee surveys and monitoring, and if necessary, ensure compliance with mitigation measures.
Effectiveness Criteria	Successful avoidance of Stephens' kangaroo rat and San Bernardino kangaroo rat impacts.
Responsible Agency	BLM, CDFG, USFWS, and CPUC.
Timing	Prior to and during construction, as appropriate.
IMPACT B-8	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants (Class III)
MITIGATION MEASURE	B-8a: Conduct surveys for listed plant species. SCE shall conduct focused surveys for listed and sensitive plants prior to construction, Surveys shall be conducted during the appropriate floristic period necessary for the identification of sensitive plant species in all suitable habitat located within the Project ROW and within 100' of all surface disturbing activities. Populations of sensitive plants shall be flagged and mapped prior to construction. If listed plants are located during the focused surveys, then modification of the placement of towers, access roads, laydown areas, and other ground disturbing activities would be implemented in order to avoid listed plants. If listed plants cannot be avoided, SCE shall be responsible for the translocation of plants and/or collection of seeds from existing populations that would be impacted and the planting/seeding of these plants in adjacent suitable portions of the ROW that would not be affected by Proposed Project construction or maintenance activities. Impacts to listed plant species would addressed through the context of a biological opinion.
Location	All areas with the potential to be disturbed by construction activities.
Monitoring / Reporting Action	Biological monitor shall oversee surveys and monitoring, and if necessary, ensure compliance with mitigation measures. Impacts will be assessed by a biological opinion.
Effectiveness Criteria	Successful avoidance of impacts to all listed plants.
Responsible Agency	BLM, CDFG, ADFG, USFWS, and CPUC.
Timing	Prior to, during, and after construction, as appropriate.
IMPACT B-9	Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife
MITIGATION MEASURE	B-9a: Conduct pre-construction surveys. SCE shall conduct pre-construction surveys for sensitive wildlife in any area subject to project disturbance. Surveys shall be conducted during a time of year when these species are known to be active. The location of sensitive species identified during the pre-construction surveys shall be identified on project maps.
Location	All areas with the potential to be disturbed by construction activities.
Monitoring / Reporting Action	Biological monitor shall oversee surveys and monitoring and report findings to BLM and CPUC.
Effectiveness Criteria	Successful identification and avoidance of all sensitive wildlife that may be impacted by construction activities.
Responsible Agency	BLM and CPUC.
Timing	Prior to construction.
MITIGATION MEASURE	B-9b: Conduct biological monitoring. SCE shall conduct biological monitoring of the project area including the laydown, staging, access roads, and any area subject to project disturbance. The biological monitor shall look for sensitive wildlife species that may be located within or immediately adjacent to the construction areas. If sensitive species are found, the biological monitor shall move them out of harm's way (listed species require take authorization) to avoid direct impacts to these species. In the event that the wildlife species may cause harm to the biologist, the biologist shall notify the construction crews and monitor the species until it moves out of harms way. The results of all monitoring shall be recorded in daily monitoring notes that shall be included as part of the required monitoring reports for the project. The SCE shall notify the CPUC/BLM if any sensitive species are located during construction of the project.

Table D.2-14. Mitigation Monitoring Program – Biological Resources

Location	Entire project area.
Monitoring / Reporting Action	Biological monitor shall oversee monitoring activities and report findings to BLM and CPUC and when necessary ensure compliance with mitigation measures.
Effectiveness Criteria	Successful avoidance of impacts to all sensitive wildlife.
Responsible Agency	BLM and CPUC.
Timing	During construction.
MITIGATION MEASURE	B-9c: Implement a Worker Environmental Awareness Program. A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews by a qualified biologist(s) provided by SCE and approved by the CPUC/BLM prior to the commencement of construction activities. Training materials and briefings shall include but not be limited to, discussion of the Federal and State Endangered Species Acts, the consequences of noncompliance with these acts, identification and values of sensitive plant and wildlife species and significant natural plant community habitats, fire protection measures, hazardous substance spill prevention and containment measures, and review of mitigation requirements. Training materials and a course outline shall be provided to the CPUC and BLM for review and approval at least 30 days prior to the start of construction. SCE shall provide to the CPUC and BLM a list of construction personnel who have completed training, and this list shall be updated by SCE as required when new personnel start work. No construction worker may work in the field for more than 5 days without receiving the WEAP.
Location	Entire project area.
Monitoring / Reporting Action	A qualified biological shall oversee implementation of the WEAP and submit copies of all documentation and training materials.
Effectiveness Criteria	Successful training of all new workers within the first 5 days of work.
Responsible Agency	BLM and CPUC.
Timing	Prior to and during construction.
MITIGATION MEASURE	B-9d: Conduct pre-construction reptile surveys. Prior to construction, SCE shall conduct surveys in areas of suitable habitat for common chuckwalla, banded Gila monster, and desert rosy boa within 48 hours prior to the start of construction activities. If common chuckwallas, banded Gila monsters and/or desert rosy boas are found on the construction site, they will be relocated to nearby suitable habitat outside the construction area. Following the clearance surveys, exclusion fencing will be erected or a biological monitor will be onsite during construction activities. • If potentially suitable burrows or rock piles are found, they will be checked for occupancy. Occupied burrows will be flagged and avoided (employing a 50 foot buffer) during construction. If the burrow cannot be avoided, it will be excavated and the occupant relocated to an unoccupied burrow outside the construction area and of approximately the same size as the one from which it was removed. If an existing burrow is unavailable, the biologist will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original. Trenches, holes, or other excavations will be examined for banded Gila monster prior to filling. If individuals are found, the biological monitor will relocate them to nearby suitable habitat. • During construction, if a common chuckwalla, banded Gila monster, and/or desert rosy boa occur on the project site, construction activities adjacent to the individual's location will be halted and the animal will be allowed to move away from the construction site. If the individual is not moving, a qualified biologist will relocate it to nearby suitable habitat outside the construction area. It shall be placed in the shade of a shrub.
Location	All project areas that may support sensitive reptiles.
Monitoring / Reporting Action	Biological monitor shall oversee surveys and monitoring, and if necessary, ensure compliance with mitigation measures.
Effectiveness Criteria	Successful avoidance of impacts to chuckwallas.
Responsible Agency	BLM and CPUC.
Timing	Prior to and during construction.

Table D.2-14. Mitigation Monitoring Program – Biological Resources

MITIGATION MEASURE	B-9e: Conduct pre-construction surveys and owl relocation. Prior to construction, SCE shall conduct pre-construction surveys for the western burrowing owl. Surveys shall be conducted prior to ground disturbance activities in appropriate areas within the potential impact areas of the project to determine the presence of burrowing owls and to ensure clearance of these areas. If active owl burrows are discovered during pre-construction surveys, owls would be evicted from the burrows using either active or passive techniques as recommended by the BLM and Burrowing Owl Consortium. Owl relocation, as well as discouragement of owls from returning to the site, will occur in the following manner: • During the non-breeding season (September 1 through January 31), burrowing owls occupying the Proposed Project site will be evicted by passive relocation. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in. • If construction is to occur during the breeding season (February 1 through August 31) and prior to the relocation of the owls, 75 meter (246 foot) protective buffers would be maintained around burrows occupied by owls until a BLM approved biologist approves other action. Other actions could include passive relocation if it is determined that owls have not begun laying eggs or postponement of construction in the area until the young are fledged and no longer dependent upon the nest burrow. • Once fledglings are capable of independent survival and adult non-breeding owls have successfully been relocated offsite, potential owl habitat (squirrel burrows) would be collapsed in order to keep the owls from returning. Ground squirrels would be removed from the site by trapping and relocation or by other approved means. Following squirrel removal, existing ground squirrel burrows would be destroyed.
Location	All project areas with suitable burrowing owl habitat.
Monitoring / Reporting Action	Biological monitor shall oversee surveys and monitoring, and if necessary, ensure compliance with mitigation measures.
Effectiveness Criteria	Successful avoidance of impacts to burrowing owls.
Responsible Agency	BLM and CPUC.
Timing	Prior to and during construction.
MITIGATION MEASURE	B-9f: Perform construction outside of breeding and lambing period. Construction activities conducted within suitable habitat near Burnt Mountain, Harquahala Mountain, and Kofa NWR shall not occur during the period of the year when bighorn sheep are lambing (from January 1 to April 30).
Location	All locations on BLM land where bighorn sheep breeding or lambing may occur.
Monitoring / Reporting Action	Biological monitor shall oversee monitoring, and if necessary, ensure compliance with mitigation measure.
Effectiveness Criteria	Successful avoidance of impacts to bighorn sheep.
Responsible Agency	BLM, USFWS, and CPUC.
Timing	Prior to and during construction.
MITIGATION MEASURE	B-9g: Conduct pre-construction surveys and relocation for American badger. Prior to construction, SCE shall conduct pre-construction surveys for American Badger. Surveys will be conducted prior to ground disturbance activities in areas that contain habitat for this species. Badger dens located outside the project area shall be flagged for avoidance. Unoccupied dens located in the right of way shall be covered to prevent the animal from re-occupying the den prior to construction. Occupied dens in the ROW shall be hand-excavated if avoidance is not possible. Dens shall only be hand–excavated before or after the breeding season (February 1–May 30). Any relocation of badgers shall take place after consultation with the BLM and CDFG.
Location	All locations where construction activities would occur near or on suitable habitat for the American badger.
Monitoring / Reporting Action	BLM and CPUC to verify documentation of survey and avoidance or excavation documentation.
Effectiveness Criteria	Identification and avoidance of American badger dens.
Responsible Agency	CPUC and BLM

Table D.2-14. Mitigation Monitoring Program – Biological Resources

Timing	Prior to construction.
MITIGATION MEASURE	B-9h: Conduct pre-construction surveys for roosting bats. SCE shall conduct surveys focused surveys for suitable roosting habitat or nursery sites for sensitive bats at the tower location, access/spur roads, and laydown/staging areas that occur in rocky areas or in areas where caves or old mines are present. If suitable roosting/nursery sites are found, then focused surveys shall be conducted to determine if the sites support sensitive bat species. If sensitive bat species occur at these sensitive roosting/nursery sites, then tower-specific adjustments and adjustments of the locations of access/spur roads and laydown/staging areas shall be made to avoid these sites. If towers, access/spur roads, and/or laydown/staging areas cannot avoid these sites, then construction of the towers, roads, and establishment of laydown/staging areas shall be delayed until the breeding cycles for the sensitive bats are completed. SCE shall consult with a bat specialist in order to determine when the breeding cycle for the sensitive bats are completed. SCE shall document the results of the surveys and any avoidance of roosting/ nursery sites for sensitive bats.
Location	All locations where construction activities would occur near rocky areas, caves or old mines.
Monitoring / Reporting Action	BLM and CPUC to review survey and avoidance documentation.
Effectiveness Criteria	Identification and avoidance of suitable roosting habitat or nursery sites for sensitive bats.
Responsible Agency	CPUC and BLM Phoenix.
Timing	Prior to construction.
MITIGATION MEASURE	B-9i: Schedule construction when the Coachella Valley round-tailed squirrel is dormant. SCE shall conduct pre-construction surveys for Coachella Round Tailed Squirrels prior to construction to identify locations of nesting colonies. Placement of footings, roads, and laydown areas shall avoid nesting colonies of this species. If this species is identified within the ROW, construction activities shall be scheduled only during periods when this species is dormant (between August 1 and February 28).
Location	All locations where construction activities would occur.
Monitoring / Reporting Action	BLM and CPUC to verify that construction activities are not scheduled between March 1 and July 31 in areas where Coachella Valley round-tailed squirrel nesting colonies have been identified.
Effectiveness Criteria	Identification and avoidance of Coachella Valley round-tailed squirrel nesting colonies.
Responsible Agency	CPUC and BLM
Timing	Prior to construction.
IMPACT B-13	Construction activities may conflict with local policies or ordinances protecting biological resources
MITIGATION MEASURE	B-13a: Demonstrate compliance with the Western Riverside County MSHCP. SCE shall provide documentation that it has complied with the provisions of the MSHCP.
Location	All locations ROW within the Western Riverside MSHCP boundaries.
Monitoring / Reporting Action	BLM and CPUC to review submitted compliance documentation.
Effectiveness Criteria	Confirmation of compliance with Western Riverside MSHCP provisions.
Responsible Agency	CPUC
Timing	During construction.
MITIGATION MEASURE	B-13b: Implement the Best Management Practices required by the Western Riverside County MSHCP. SCE shall provide documentation that is has implemented the Best Management Practices set forth in Appendix C of the Western Riverside MSCHP.
Location	All locations within the Western Riverside MSHCP boundaries where construction activities would occur.
Monitoring / Reporting Action	BLM and CPUC to review submitted documentation.

Table D.2-14. Mitigation Monitoring Program – Biological Resources

Effectiveness Criteria	Confirmation of implementation of Best Management Practices in the Western Riverside MSHCP.
Responsible Agency	CPUC
Timing	During construction.
IMPACT B-15	Operation of the transmission line may result in collisions by listed bird species
MITIGATION MEASURE	B-15a: Utilize collision-reducing techniques in installation of transmission lines. SCE shall install the transmission line utilizing APLIC standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994 (APLIC, 1996)." • Placement of towers and lines will not be located significantly above existing transmission line towers and lines, topographic features, or tree lines to the maximum extent practicable. • Overhead lines that occur significantly above the above-mentioned features and that are located in highly utilized avian flight paths will be marked utilizing aerial marker spheres, swinging plates, spiral vibration dampers, bird flight diverters, avifauna spirals, or other diversion device as to be visible to birds and reduce avian collisions with lines.
Location	All locations along the ROW where potential avian collisions could occur.
Monitoring / Reporting Action	BLM and CPUC to verify the placement of towers and lines, and the existence of collision-reducing devices on towers and lines located above existing structures/features.
Effectiveness Criteria	SCE has located towers and level with or below existing structures/features, or has installed collision-reducing devices on tower and lines.
Responsible Agency	CPUC and BLM.
Timing	During construction.
IMPACT B-16	Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers
MITIGATION MEASURE	B-16a: Prepare and implement a raven control plan. SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a different raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Law Enforcement Division, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's Law Enforcement Division. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.
Location	All locations along ROW that support desert tortoise.
Monitoring / Reporting Action	CPUC/BLM monitor verifies that SCE submitted raven control plan and all SCE and other transmission line companies operating in ROW receive proper training
Effectiveness Criteria	USFWS approves raven control plan. SCE and other transmission line companies operating in the ROW are informed of the purposes of raven control, and receive training on the procedures of raven identification, permitting, and documentation.
Responsible Agency	CPUC; BLM Phoenix, Yuma, and Palm Springs Field Offices; USFWS Law Enforcement Division
Timing	Prior to the completion of construction for preparation and approval of the raven control plan and training of SCE and other companies employees; and ongoing, as needed, throughout operation for training of new employees

D.2.11 References

Alice Karl & Associates and Tetra Tech EC, Inc. 2005. Combined Desert Tortoise Protocol Survey Report. Prepared for Southern California Edison, Inc.; Desert Southwest Power, LLC; and Blythe Energy, LLC. August.

Anderson, B. W., and Ohmart, R. D. 1984. Vegetation management study for the enhancement of wildlife along the lower Colorado River. U.S. Dept. of the Interior, Bureau of Reclamation, Boulder City, NV.

Arnett, R. H., and Jacques, R. L. 1981. Simon and Schuster's Guide to Insects. New York: Simon and Schuster, Inc.

Aspen Environmental Group. 2005. Public Scoping Report: Southern California Edison's Devers – Palo Verde No. 2 Transmission Line Project. December.

Banning. 2005. City of Banning Draft General Plan.

Beaumont. 2005. City of Beaumont Draft General Plan.

BioResource Consultants. 2003. West of Devers 230 kV Transmission Line Upgrade Biological Resources Inventory Report. Prepared for Southern California Edison Company. October.

BLM (Bureau of Land Management). 1980. The California Desert Conservation Area Plan. Sacramento: United States Department of the Interior.

_____. 2002. Record of Decision for California Desert Conservation Area Plan Amendment for the Coachella Valley.

_____. 2005. California-BLM Animal and Plant Sensitive Species List. Department of the Interior. http://www.blm.gov/ca/. Accessed November 2005.

Blythe. 1989. City of Blythe Comprehensive General Plan. Adopted September.

Burt, W. H., and Grossenheider, R. P. 1976. Mammals. Boston: Houghton-Mifflin Co.

California Recreational Trails Plan, Phase 1. 2002. Prepared by State of California Department of Parks and Recreation.

Calimesa. 1994. City of Calimesa General Plan. Adopted April 4.

Cathedral City. 2002. City of Cathedral City General Plan. Adopted July 31.

CalFlora. 2005. "California plants for education, research and conservation [web application]." Berkeley, CA. http://www.calflora.org.

CDFG (California Department of Fish and Game). 2005. Special Animals List. Sacramento, CA: State of California, the Resources Agency.

_____. 2005. State and Federally Listed Endangered and Threatened Animals of California. Sacramento, CA: State of California, the Resources Agency.

CNDDB (California Natural Diversity Database). 2005. Sacramento, CA: State of California, the Resources Agency, Department of Fish and Game.

CNPS (California Native Plant Society). 2005. Inventory of Rare and Endangered Plants (online edition, v6-04c). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. http://www.cnps.org/inventory. Accessed November.

Coachella. 1996. City of Coachella General Plan. Adopted September.

Coachella Valley Multiple Species Habitat Conservation Plan, Public Review Draft. 2004. Coachella Valley Association of Governments. Prepared by Coachella Valley Mountain Conservancy. October.

County of Riverside and County of San Bernardino. 2005. Final General Management Plan Amendment Environmental Impact Statement; Backcountry and Wilderness Management Plan, Joshua Tree National Park.

County of San Bernardino. 1989. County of San Bernardino General Plan. Adopted July 1.

Dames & Moore. 1994. Biological Resources Inventory Report for the Devers to Palo Verde II Transmission Line Project. September.

E. Linwood Smith & Associates. 1987. Palo Verde to Devers 500kV Transmission Line 2 Results of Biological Clearance Studies. Prepared for Southern California Edison Company. July.

ECORP Consulting, Inc. 2005. Various biological resources assessment surveys performed along the proposed ROW.

_____. 2006. Various biological resources assessment surveys performed along the proposed ROW.

Environmental Planning Group. 2003. Devers-Harquahala 500kV Transmission Line Sensitive Biological Resources Inventory. Prepared for Southern California Edison Company. December.

_____. 2004. A Comparative Analysis of Sensitive Biological Resources for the Porposed 230 kV Transmission Line from the Buck Boulevard Substation to the Julian hinds Substation. Prepared for Southern California Edison Company. September.

Grand Terrace. 1988. City of Grand Terrace General Plan. Adopted December.

Greystone Environmental Consultants, Inc. 2005. Desert southwest transmission project and Devers to Palo Verde II project Coachella Valley milk-vetch and Coachella Valley fringe-toed lizard biological survey summary report. Prepared for Bureau of Land Management. August.

Hickman, J. C., editor. 1993. The Jepson manual. Berkeley: University of California Press.

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, the Resources Agency, Department of Fish and Game.

Indio. 1994. City of Indio General Plan. Adopted October.

Jackson, R. D. 1985. "Evaluating evapotranspiration at local and regional scales." Proceedings, IEEE (Institute of Electrical and Electronics Engineers). 73: 1086-1096.

Johnson, R. R., Cartron, J.-L. E., Haight, L. T., Duncan, R. B., and Kingsley, K. J. 1999. A historical perspective on the population decline of the cactus ferruginous pygmy-owl in Arizona. In: Cartron, J.-L. E., and D. M. Finch, eds. Ecology and Conservation of the Cactus Ferruginous Pygmy-owl in Arizona. Ogden, UT: U. S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Karl, A. Tetra Tech EC, Inc. 2005. Blythe Energy Transmission Line Project Supplementary Survey of Special Status Species. September.

Loma Linda. 2005. City of Lima Linda Draft General Plan. Adopted October.

Mac, M. J., Opler, P. A., Haecker, E. P., and Doran, P. D. 1998. Status and trends of the nations biological resources. Volume 2 USDI, U.S. Geological Survey, Reston VA.

Mackness, M. D., and Miller, J. A. 2005. Proponent's Environmental Assessment Devers–Palo Verde No. 2 Transmission Line Project. Prepared for Southern California Edison Company.

Millsap, B. A., and Johnson, R. R. 1988. Ferruginous pygmy-owl. In: Glinski, R. L., Pendleton, B. G., Moss, M. B., LeFranc Jr., M. N., Millsap, B. A., and Hoffman, S. W., eds. Proceedings of the Southwest raptor management symposium and workshop. pp. 137-139. Scientific Technical Series 11. Washington, D.C.: National Wildlife Federation.

Munz, P. A. 1974. A Flora of Southern California. London: University of California Press.

NatureServe. 2005. NatureServe Explorer: "An online encyclopedia of life" [web application]. Version 4.6. NatureServe, Arlington, Virginia. http://www.natureserve.org/explorer.

Northern and Eastern Colorado Coordinated Management Plan and Environmental Impact Statement. 2001. Bureau of Land Management, California Desert District, and California Department of Fish and Game.

O'Leary, J. F., Murphy, D., and Brussand, P. 1992. The Coastal Sage Scrub Community Conservation Planning Region: An NCCP Special Report. Natural Community Conservation Planning/ Coastal Sage Scrub Special Report 2.

Palm Springs. 1993. City of Palm Springs General Plan. Adopted March 3.

Peterson, R. T. 1990. Western Birds. Boston: Houghton-Mifflin Co.

Redlands. 1995. City of Redlands General Plan. Adopted August.

RCIP (Riverside County Integrated Project). 2003. Western Riverside Multiple Species Habitat Conservation Plan. http://www.rcip.org/mshcpdocs/vol1/mshcpvol1toc.htm.

Sawer, J. O. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento, CA.

Schoenherr, A. A. 1992. A Natural History of California. London: University of California Press.

Sibley, D. A. 2000. The Sibley Guide to Birds. New York: Chanticleer Press, Inc.

Sims, P. L., and Risser, P. G. 2000. Grasslands. North American Terrestrial Vegetation. 2nd Ed. Cambridge: Cambridge University Press, 323-356.

Stebbins, R. C. 2003. Western Amphibians and Reptiles. Boston: Houghton-Mifflin Co.

Tetra Tech EC, Inc. 2005. Blythe Transmission Line Modifications Petition for Post-Certification Amendment Supplemental Biological Survey. December.

USFWS (U. S. Fish and Wildlife Service). 2005. Species accounts. http://www.fws.gov/species/species_accounts/bio_cond.html.

_____. 2006a. USFWS News Release: Cactus Ferruginous Pygmy-Owl Will No Longer Receive Endangered Species Act Protection. http://southwest.fws.gov. Accessed April 13.

_____. 2006b. USFWS Questions and Answers: Delisting the Cactus Ferruginous Pygmy Owl in Arizona. http://www.fws.gov/arizonaes. Accessed April 13.

USGS (U. S. Geological Survey). Aztec Mines, Bachelor Mountain, Beaumont, Blackburn Canyon, Blythe, Blythe NE, Cabazon, Catclaw Flat, Cathedral City, Corn Spring, Cottonwood Basin, Cottonwood Spring, Desert Center, Desert Hot Springs, East Deception Canyon, East of Aztec Mines, East of Red Canyon, East of Victory Pass, El Casco, Ford Dry Lake, Forest Falls, Hayfield, Hayfield Spring, Hemet, Hopkins Well, Idyllwild, Indio, La Quinta, Lake Fulmor, Lakeview, McCoy Peak, McCoy Spring, McCoy Wash, Morongo Valley, Mortmar, Orocopia Canyon, Palm Springs, Palo Verde, Perris, Pilot Mountain, Red Canyon, Red Cloud Canyon, Redlands, Ripley, Riverside East, Rockhouse Canyon, Romoland, Roosevelt Mine, Sage, San Bernardino South, San Gorgonio Mountain, San Jacinto, San Jacinto Peak, Seven Palms Valley, Sidewinder Well, Sunnymead, Thermal Canyon, Winchester. 7.5' topographic quadrangles.

Western Area Power Administration. 2005. Blythe Energy Project Transmission Lines Biological Assessment. Prepared for U.S. Fish and Wildlife Services. February.

Whittaker, R. H. 1967. "Gradient Analysis of Vegetation." Biological Review 42:207-264.

_____. 1975. Communities and ecosystems, second ed. New York: Macmillan Publishing Co.

Wilderness Institute. 2005. An online tool for wilderness information. http://www.wilderness.net/index.cfm.

Zedler, P. H., Gautier, C. H., and McMaster, G. S. 1983. "Vegetation change in response to extreme events. The effect of a short return interval between fires in California chaparral and coastal scrub." Ecology 64:809-818.