2.3 Biological Resources

This section discusses potential impacts to biological resources resulting from the implementation of the proposed project. The analysis is based on the review of existing biological resources, technical data, and applicable laws, regulations, and guidelines, as well as the *Biological Resources Report Prepared for the Warner Ranch Project* by Dudek (June 2013), in conformance with the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (September 15, 2010; County of San Diego 2010). That report is included as Appendix E to this Environmental Impact Report (EIR).

General biological resource surveys and vegetation community mapping were conducted on multiple visits in 2005, 2006, 2008, and 2010–2013 at the project site. Several sensitive and/or potentially occurring sensitive resources were identified during those surveys. Based on the general surveys, focused surveys were conducted in 2005 and 2010, including surveys for federally and state-listed species, species considered sensitive by the County, and mapping of jurisdictional wetland habitats. While the focused surveys were not completed within the past year, the multiple past surveys are sufficient to support the conclusions in this EIR. All focused surveys were negative for the presence of endangered species on the site. However, these surveys determined whether the site was likely to provide species' habitat and, where potential habitat was noted, impacts were analyzed and mitigation was identified. Based on the multiple general biological and species specific focused surveys, mitigation and design measures, such as resource management and habitat preservation, and pre-construction surveys and avoidance measures including seasonal restrictions and exclusionary fencing and monitoring have been incorporated into the project to minimize or avoid impacts to potentially occurring sensitive species. More information on the focused surveys is provided in the Biological Technical Report. Appendix E of this EIR contains the Conceptual Resource Management Plan (RMP) as an attachment to the Biological Resources Report for the project.

Resources were mapped and project impact areas were noted and analyzed with geographic information system (GIS) technology. The project improvement areas shown on TM5508 RPL4 were considered impacted. Fuel modification areas were considered impacted. Easement areas were considered impact neutral (not impacted and not available for preservation), unless the project's conditions of approval required improvements be done and then the improvement and a reasonable area for construction and maintenance was assessed for impacts. For biological resource reports, the County requirements state that surveys cover the "entire project parcel(s) and habitat mapping must include land 100 feet off site." All portions of the project site were surveyed in detail. The analysis of impacts included both impacts that would occur on site (within the 155.4-acre project footprint) and for required off-site improvements (9.6 acres) with implementation of the project).

The off-site project impact areas are as follows:

1. Waterline and road improvements north of the project (1.6 acres)
2. Sewer line and cleanouts (5.4 acres)
3. Intersection improvements at SR 76 and Cole Grade Road (2.6 acres)

2.3.1 Existing Conditions

2.3.1.1 Environmental Setting

Warner Ranch is a privately owned ranch with agricultural activities and associated residences. It is a working ranch with citrus and avocado groves, as well as livestock and horses. There is also an office and housing for ranch employees. Developed areas, agricultural uses, and disturbed areas occupy approximately 151.5 acres of the 513.5-acre site. The remaining acreage supports native habitats and areas of jurisdictional waters and/or wetlands associated with Gomez Creek and Pala Creek.

The central portion of the project area, at about 350 feet in elevation, is relatively flat. The primary drainage from the site is conveyed through Gomez Creek, which occurs in a relatively steep canyon in the northern part of the property, upstream of the relatively flat terrace in the southern portion of the property. The remainder of the site consists of hills of up to 1,000 feet in elevation. The project area generally has a warm, dry climate consistent with the San Diego area, and the average temperature in the community of Pala ranges from 56 degrees Fahrenheit (F) to 73 degrees F, with an annual rainfall of about 11 inches.

Portions of the project area have burned in the last 20 years. In 1997, the Pala Fire burned the northeast corner of the site; in 2004, the Warner Fire burned the north–central portions of the project area, including the off-site area in between the northern project boundary; in 2009, another Pala fire burned 122 acres within and near the project area; and in August 2011, there was a Pala fire that burned 223 acres just east of Pala Temecula Road, including a portion of the project site.

2.3.1.1.1 Topography and Soils

Elevations on the project area range from approximately 350 feet above mean sea level (amsl) in the central portion of the site and along the drainages up to 1,000 feet amsl on the highest points. The site is influenced by the relatively low elevation along the San Luis Rey River which keeps the site warmer in winter and cooler in the summer, allowing coastal species to occur farther inland than otherwise. Eight soil types are found (Bowman 1973; USDA 2010). These include Las Posas stony fine sandy loam, nine to 30 percent slopes; Las Posas stony fine sandy loam, 30–65 percent slopes; Cieneba coarse sandy loam, 30–65 percent slopes, eroded; Cieneba–

Fallbrook rocky sandy loams, 30–65 percent slopes, eroded; Ramona sandy loam, two to five percent slopes; Ramona sandy loam, eroded, five to nine percent slopes; Ramona gravelly sandy loam, 15–30 percent slopes; and Visalia sandy loam, zero to two percent slopes.

2.3.1.1.2 Vegetation

Both upland and riparian/wetland habitats occur on site and in off-site areas where improvements are proposed. As shown in Figures 2.3-1A and 2.3-1B and summarized in Table 2.3-1, Vegetation Communities and Land Cover Types, the biological survey found that the habitats found on site are as follows:

Diegan coastal sage scrub (CSS, 180.0 acres, including 31.0 acres of disturbed DCSS). This habitat type was mapped on the gentler slopes and south-facing exposures in the eastern and western portions of the property. Shrub cover is relatively low (approximately 30–60 percent), including common species such as California sagebrush (*Artemisia californica*), flat-topped buckwheat (*Eriogonum fasciculatum*), and laurel sumac (*Malosma laurina*). In the northern portion of the site, the CSS occurs as a mosaic with southern mixed chaparral (SMC), with yellow bush penstemon (*Keckiella antirrhinoides* ssp. *antirrhinoides*) as a common component. Understory species observed included fringed spineflower (*Chorizanthe fimbriata*), yellow pincushion (*Chaenactis glabriuscula* var. *glabriuscula*), California everlasting (*Gnaphalium californicum*), chalk dudleya (*Dudleya pulverulenta*), caterpillar phacelia (*Phacelia cicutaria*), silver puffs (*Uropappus lindleyi*), brome grasses (*Bromus* spp.), and star thistle (*Centaurea melitensis*).

The Draft North County Multiple Species Conservation Program (NCMSCP) identifies some coastal sage scrub within the project area with dense coastal sage scrub mapped within one to two miles west of the project area; and the California Gnatcatcher Habitat Evaluation Model Results identifies Low, Medium, and High values for California gnatcatcher habitat within portions of the project area. Concentrated areas identified as Very High habitat values are located within one to two miles west of the project area.

The coastal sage scrub within the project area is interspersed in distribution and patch size. In addition, focused surveys for California gnatcatcher were conducted in 2005 and 2010 within all suitable habitats, including coastal sage scrub; and the surveys were negative. Using this information, the coastal sage scrub habitat in the project area would be considered Intermediate Value habitat.

Non-native grassland (NNG, 27.7 acres). Annual (non-native) grassland occurs primarily in the south-central portion of the property in flat to gently sloped areas associated with the existing ranch operation. Dominant species include wild oat (*Avena* spp.), red brome (*Bromus*

madritensis ssp. *rubens*), fescue *(Vulpia* spp.), and Italian ryegrass (*Lolium multiflorum*). A few native species were observed, including Nievitas cryptantha (Cryptantha intermedia), spreading goldenbush (*Isocoma menziesii* var. *menziesii*), morning glory (*Calystegia macrostegia*), calabazilla (*Cucurbita foetidissima*), and deerweed (*Lotus scoparius*). The grasslands appear to be annually mowed/disked.

Mulefat scrub (MFS, 1.7 acres). This habitat occurs within the southern, downstream segment of Gomez Creek, extending from just above the existing concrete dip section of the creek within the ranch to SR 76 along the southern border. Here, there is an approximately 5- to 15-foot steeply incised channel. It is expected that this channel is subject to high stormwater flow velocities which may affect the amount of cover in some areas. Mulefat (*Baccharis salicifolia*) occurs throughout the segment, along with associated species such as salt cedar (*Tamarix ramosissima*), Mexican tea (*Chenopodium ambrosioides*), cockle-bur (*Xanthium strumarium*), Parish's monkeyflower (*Mimulus parishii*), and dock (*Rumex conglomeratus*). An isolated area of mulefat was also mapped in a section of riparian vegetation on the eastern portion of the property.

The mulefat occurring in Gomez Creek is considered a wetland habitat under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), and the County of San Diego's Resource Protection Ordinance (RPO). The aforementioned isolated area of mulefat on the eastern portion of the site is considered a CDFW and RPO wetland.

Southern mixed chaparral (SMC, 116.4 acres). This habitat occurs throughout the northern portion of the site, frequently intermingled with CSS. Dominant species include chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), greenbark ceanothus (*Ceanothus tomentosus*), hoary-leaf ceanothus (*Ceanothus crassifolius*), and scrub oak (*Quercus berberidifolia*). Other species noted include poison oak (*Toxicodendron diversilobum*), San Diego bedstraw (*Galium nuttallii* ssp. *nuttallii*), caterpillar phacelia, littleseed muhly (*Muhlenbergia microsperma*), miner's lettuce (*Claytonia perfoliata*), bull thistle (*Cirsium vulgare*), ropevine (*Clematis pauciflora*), and Nuttall's snapdragon (*Antirrhinum nuttallianum* ssp. *nuttallianum*).

This habitat occurs on Cieneba-Fallbrook series, Cieneba series, and Las Posas series soils in the project area. Las Posas soils are considered metasedimentary derived soils (Oberbauer et. al 2008) and some of the chaparral in (mainly the western portion of the site) is thus classified as mafic southern mixed chaparral (30.2 acres). The remaining chaparral within the project area is classified as granitic southern mixed chaparral (86.1 acres, including 0.2 acre of disturbed chaparral).

Southern cactus scrub (SCS, 4.6 acres). While not described in Holland (1986) or Oberbauer et al. (2008), this vegetation community considered a rare form of coastal sage scrub. It is found in relatively isolated areas of San Diego County (e.g., Chula Vista, San Pasqual). Southeastern areas of the property were mapped as SCC, as they are dominated by prickly pear (*Opuntia littoralis*), interspersed with large gaps of non-native grasses and coastal sage scrub species.

Scrub oak chaparral (SOC, 8.0 acres). This habitat was mapped in the central-western portion of the site on gentle to steep slopes adjacent to Gomez Creek. Dominated by scrub oak with an open, tall stature (approximately 60 percent cover and 10 to 15 feet in height), it also supports purple needlegrass (Nassella pulchra), flat-topped buckwheat, and brome grasses. On steeper slope, the scrub oak is denser but shorter (90 percent cover, 6–10 feet in height), with the understory dominated by poison oak, common eucrypta (*Eucrypta chrysanthemifolia*), yellow bush-penstemon, and toyon (*Heteromeles arbutifolia*).

Valley needlegrass (native) grassland (VGL, 1.2 acres). Native grassland was found in three locations on site, on an east-facing exposure, midslope above Gomez Creek. Here, shrub cover is less than 20 percent, with native grasses providing at least 10 percent cover. Other species include native and non-native annuals, such as osmadenia (*Osmadenia tenella*), soft chess (*Bromus hordeaceus*), dot-seed plantain (*Plantago erecta*), narrow-leaf filago (*Filago gallica*), slender wild oat, Douglas' microseris (*Microseris douglasii* ssp. *douglasii*), everlasting nest straw (*Stylocline gnaphiloides*), and canchalagua (*Centaurium venustum*).

Sycamore alluvial woodland (SAW, 4.3 acres). This woodland habitat occurs along Gomez Creek and the eastern tributary channel, above the ordinary high water mark (OHWM) for both channels. Mature western sycamores (*Platanus racemosa*) are dominant in an open, tall structure with a relatively dense non-native understory along Gomez Creek. A more sparse understory is present along the eastern tributary. Associated species include bull thistle, bristly ox-tongue (*Picris echioides*), wild mustard (*Hirschfeldia incana*), and rip-gut grass (*Bromus diandrus*). Sandy soils occur along both stream courses; disturbance (mowing and grazing) has been more intensive in the western areas. This habitat is also mapped in an isolated area of riparian vegetation in the eastern portion of the property.

Sycamore alluvial woodland is usually considered hydrophytic vegetation, indicating the presence of waters of the United States and/or the state. Both of the areas along Gomez Creek and in the eastern area are considered wetlands under the jurisdiction of the CDFW and County RPO.

Southern coast live oak riparian forest (ORF, 10.4 acres). Southern coast live oak riparian forest on the Warner Ranch project area occurs as two subtypes according to the wetlands jurisdictional designation; each also occurs in disturbed phases (0.7 acre), for a total of four mapping categories. Southern coast live oak riparian forest (ACOE, CDFW, RWQCB, and County

jurisdictional), occurs along the OHWM within the northern tributary to Gomez Creek. Coast live oak (*Quercus agrifolia*) is the dominant species, with lesser amounts of arroyo willow (*Salix lasiolepis*) and mulefat, and an herbaceous understory. Along the small stretch of Pala Creek in the project area, oaks occur sparsely along an open sandy channel. Although no substantial populations of invasive exotic species were found in this area, off-road vehicular activity was observed and appears to be a regular occurrence; thus this area was mapped as disturbed.

Southern coast live oak riparian forest (CDFW and County jurisdictional), occurs on slopes above the OHWM on either side of Gomez Creek and along Pala Creek. Associated species in this community include poison oak, prickly ox-tongue (*Picris echioides*), California mugwort (*Artemisia douglasii*), and bull thistle (*Cirsium vulgare*). The disturbed phase of this subtype, on the east side of Gomez Creek, has been altered by mechanical disturbance (apparently regular mowing and parking/driving), creating a compacted soil condition and substantially reducing understory cover and oak recruitment.

The oak root protection zone was mapped by establishing a 50-foot buffer around all oak woodlands in the project area, including coast live oak woodland, southern coast live oak riparian forest, and disturbed southern coast live oak riparian for oak root protection zone (Figures 2.3-1A through 2.3-1E).

Coast live oak woodland (LOW, 0.4 acre). This habitat was mapped in a few locations where coast live oaks occur on hillsides in moderately dense, tall stands not associated with drainages. Understory species include toyon, ropevine, and non-native annuals including black mustard (*Brassica nigra*) and bull thistle. Because these areas are not associated with drainages and do not support hydrophytic vegetation, they are not considered jurisdictional waters or wetlands. The buffer for the root zone of this habitat is also provided on Figure 2.3-1A.

Southern cottonwood willow riparian forest (SCWRF, 6.9 acres). This habitat constitutes the majority of the vegetation within the OHWM of Gomez Creek, and is ACOE, CDFW, RWQCB, and County RPO jurisdictional. It consists of a mix of arroyo willow, Fremont's cottonwood (*Populus fremontii*), and coast live oak in the tree layer; with mulefat, giant reed (*Arundo donax*), dwarf nettle (*Urtica urens*), water speedwell (*Veronica anagallis-aquatica*), Parish's monkeyflower, narrow leaved willow (*Salix* sp.), and cocklebur in the shrub layer.

Non-vegetated channel (NVC, 0.05 acre). An area of non-vegetated channel was mapped within Pala Creek, consisting of a wide, sandy bottom channel with ORF mapped outside of the OHWM. It is ACOE, CDFW, RWQCB, and County RPO jurisdictional.

Orchard and vineyards (ORC, 68.3 acres). These areas were mapped where artificially irrigated land dominated by citrus and avocado trees occur.

General agriculture (AGR, 76.3 acres). This includes the areas of intensive agriculture (corrals and ranch buildings, 17.4 acres) and extensive agriculture (pasture land, 58.9 acres).

Disturbed habitat (DH, 3.7 acres). These include areas that are not developed but lack vegetation and show repeated mechanical activity.

Urban/Developed (DEV, 3.7 acres). The areas mapped as developed lands include portions of State Route 76 (SR 76) and Pala-Temecula Road.

A total of 389 species of vascular plants were recorded on site. Of these, 81 percent (317) were native, mainly associated with undisturbed CSS and SCWRF. The non-natives are generally common invasive species such as brome grasses. A list of species observed is included in Appendix E. Table 2.3-1 lists the existing acreage of habitats on site.

2.3.1.1.3 Habitat Connectivity and Wildlife Corridors

Two kinds of wildlife movement were defined in the biology report, diffusion and jump dispersal. Diffusion refers to gradual movement or expansions of populations, where jump dispersal is defined as a one-time, long-distance movement within the lifetime of an organism. Three main types of habitat connections are habitat linkages, wildlife corridors, and wildlife crossings. These habitat connections decrease in scale from regional or landscape-level connections (habitat linkages) to linear pathways between areas (wildlife corridors), and down to constrained wildlife movement pathways within development (wildlife crossings):

Habitat Linkages. Landscape habitat linkages (linkages) are relatively large open space areas that contain natural habitat and provide connection between at least two larger adjacent open spaces that can provide for both diffusion and dispersal of many species. Linkages can form contiguous tracts of habitat when adjacent to other open space areas. Large open space networks can be formed in this way to connect and conserve habitat through entire regions.

Linkages can form large tracts of natural open space, serving both as “live-in” or “resident” habitat and as connections to the larger landscape (e.g., large core habitat areas). Linkages are capable of sustaining certain communities of species in self-contained, functioning ecosystems, thus supporting both plant and animal populations and allowing for gene flow through diffusion of populations over a period of generations, as well as allowing for jump dispersal between neighboring habitats. Linkages may vary in their function depending on the species, serving more as landscape-scale dispersal corridors than habitat for larger species, particularly those with large home ranges such as mountain lions. Linkages are, nonetheless, capable of supporting at least a portion of the populations of larger species as they may also serve as migratory routes for large predators and their prey compared to wildlife corridors through which species are expected to move quickly.

As used here, linkages are defined as large, open space areas that are large enough to support at least a natural habitat mosaic and viable populations of smaller terrestrial species, such as rodents, smaller carnivores (raccoons, skunks, foxes, and weasels), passerine birds, amphibians, reptiles, and invertebrates.

Wildlife Corridors. Habitat provides for the life history components of survivorship, reproduction, and movement. Wildlife corridors are linear landscape elements that provide for species movement and dispersal between two or more habitats but do not necessarily contain sufficient habitat for all life history requirements of a species, particularly reproduction. For this reason, while corridors may provide for dispersal of most species, they may not provide for diffusion of populations over a longer time scale. The main prerequisite for corridors is that they increase animal movement between habitat patches. Even if the corridor itself does not provide habitat functions, it is expected to at least maintain plant and animal populations, gene flow between the constituent subpopulations, and biodiversity. Corridors thus provide physical conduits for maintaining specific genetic diversity, species richness, and community integrity.

In an unconstrained landscape, there are likely favored areas for habitat use and movement related to existing conditions, such as vegetation cover, topography, and existing land uses. For example, mule deer prefer rugged terrain and slopes, and mountain lions prefer canyon bottoms and gently sloping terrain.

Potentially important wildlife corridors in the project area include linear landscape elements that connect larger habitat patches (e.g., Gomez Creek). Potential corridors should allow high mobility ground-dwelling species (e.g., mule deer, mountain lion) to move through areas in a single generation and should also contain sufficient habitat components for occupation by low and moderate mobility species.

Wildlife Crossings. Wildlife crossings are locations where wildlife must pass through physically constrained environments (e.g., roads, development) during movement within home ranges or during dispersal or migration between core areas of suitable habitat. Development and roads may transect or interrupt an existing natural crossing, creating dangerous or impassable barriers that impede the natural movement of a species and possibly expose it to higher risks of injury and mortality from adverse human interactions, such as increased vehicle collisions.

Post-development drainages (e.g., creek crossing under SR 76) are typical pathways for wildlife movement across roads, although they are not the only pathways used. Structures where roads and drainages intersect are often constricted or confined in some way and provide funnel points for movement, such as road undercrossings, space beneath bridges, or pathways through large culverts. Wildlife crossings are used differently or at different frequencies, depending on the species and the conditions at the crossing. Although most existing structures, such as culverts or

bridges under roads, were not originally designed to accommodate wildlife passage, they can be retrofitted or redesigned to encourage wildlife use by restoring or maintaining native vegetation and "soft-bottom" natural substrates within the crossing, allowing natural lighting, using fences to guide larger species toward the crossing, locating crossings at pre-existing animal passages, and improving habitat adjacent to the crossing to provide cover and protection for wildlife (Carr et al. 2003; Meese et al. 2007).

On-Site Wildlife Movement. The project area is located in a large region characterized by mixed-density development (Pala Casino to the south and Pala Village to the east) and undeveloped land where wildlife movement is relatively unconstrained and a broad habitat linkage is provided. This area can be characterized as extending from the Santa Ana Mountains and the eastern portions of the Marine Corps Base Camp Pendleton to the northwest, across Interstate 15 (I-15) and the project area and connecting with the Palomar Mountains and Laguna Mountains to the east and southeast. The landscape linkage lies between the cities of Temecula to the north and Escondido to the south.

Within this landscape, the region surrounding the project area includes two identified core habitat areas consisting of a block of undeveloped land to the north associated with Mount Olympus and a linear block of mostly undeveloped land along the San Luis Rey River to the south (Figure 2.3-2B). Similar to the discussion of wildlife movement within the larger landscape linkage of which this area is a part, wildlife movement between these cores is largely unconstrained due to the rural and agricultural nature of development in the region north and northwest of the project area. Wildlife movement likely occurs from Camp Pendleton through Fallbrook and the San Luis Rey River to areas east of I-15. It is likely that wildlife move relatively freely between I-15 and Pala.

Local connectivity in the vicinity of the project area, between the Mount Olympus and San Luis Rey River core habitat areas is likely provided through a number of valleys and ridgelines both east and west of the project area site as well as through portions of the project site itself. Figures 2.3-2A and 2.3-2B (see Section 2.3.2.4) illustrate some areas of likely wildlife movement given topography and locations of development between Rice Canyon and the community of Pala. North of the project area, there is very little development and wildlife movement in the area from Mount Olympus extending east to Tourmaline Queen Mountain and further east to Palomar Mountain is likely unconstrained. South of these areas, the community of Pala represents the only major developed area that would significantly restrict wildlife movement. There is a large block of mostly undeveloped land between Gomez Creek and Rice Canyon (1.5 to 2 miles wide) that may represent the best opportunity for connectivity between Mount Olympus and the San Luis Rey River.

Within the project area, the upper reach of Gomez Creek is a densely vegetated canyon creek that originates from the hills near Rainbow and flows south into the San Luis Rey River. It is surrounded primarily by open space and rural agricultural areas. Gomez Creek flows off site through a culvert crossing (approximately 30 feet wide and 12 feet in height) under SR 76. The lower reach of Gomez Creek in the ranch portion of the project area is a narrow, deeply incised channel with sparse cover of mulefat scrub, and scattered sycamores. It is adjacent to active ranch pastures to the east and west and active American bison pastures to the south.

Due to its relatively small size and dry periods, this creek likely serves as a local wildlife corridor for mammals such as mule deer, mountain lion, coyote, bobcat, and gray fox, though wildlife probably make at-grade crossings over roadways instead of using the culvert. Raptors such as Cooper's hawk and great-horned owl and other riparian birds may use this as stopover habitat during migration and dispersal. Set in the context of large, open wildlife movement areas in the regional block of undeveloped land or low-density rural development from I-15 to the west, Escondido to the south, Lake Henshaw to the east, Mount Olympus to the north and the Palomar Mountain range to the northeast, Gomez Creek does not represent a wildlife movement corridor of regional significance. Rather, the wildlife movement expected to occur through Gomez Creek is likely similar to other areas throughout this region.

Although slopes are steep in this area (up to 60 percent), during wildlife trail studies at Tejon Mountain Village, there is wildlife movement (e.g., mule deer, bobcat, and coyote) on steeper topography (Dudek 2009). It would also be expected that steep slopes in this area will not preclude wildlife movement through the open space located west of the project area. This upland corridor supports native shrublands and provides better cover than the mixed-density developed areas for mammal species sensitive to development and human activities (e.g., mountain lion and mule deer) compared with Gomez Creek itself. This area also provides a habitat linkage for dispersal by avian species.

Raptors may utilize the dense vegetation along upper portions of the creek for cover (e.g., Cooper's hawk and great horned owl (*Bubo virginianus*)); and other riparian bird species may use this as stopover habitat during migration and dispersal. Based on the existing riparian scrub and woodland in Gomez Creek, it likely serves to connect habitat for birds from the San Luis Rey River into upstream areas of Gomez Creek.

Pala Creek also is a wide, vegetated channel that runs north–south along Pala-Temecula Road before terminating at the San Luis Rey River. It connects to the San Luis Rey River through a culvert under Pala Mission Road and SR 76. Even with its proximity to Pala-Temecula Road, the rural environment and seasonal flow of water present in the channel would provide a suitable area for large mammals to travel (e.g., mountain lion, mule deer, and coyote). SR 76 and Pala

Mission Road to the south are movement constraints for large mammals due to the lack of culverts, traffic from the roads, and the noise and lights from the casino.

The definition for Sensitive Habitat Lands in the RPO includes areas that serve "as a functioning wildlife corridor" (County of San Diego 2011). While the site supports habitats that are similar to other sites within the region, the movement corridors along Gomez Creek and Pala Creek are considered Sensitive Habitat Lands under the RPO.

2.3.1.1.4 Wildlife

The project area provides habitat for a large number of common upland and riparian species. A total of 136 wildlife species were observed during the surveys (Appendix E).

Reptiles and amphibians. A total of 10 reptiles and three amphibians were found on site, including western skink (*Eumeces skiltonianus*), western fence lizard (*Sceloporus occidentalis*), common side-blotched lizard (*Uta stansburiana*), Pacific treefrog (*Hyla regilla*) and California treefrog (*H. cadaverina*).

Birds. A total of 76 bird species were detected, including California towhee (*Pipilo crissalis*), house finch (*Carpodacus mexicanus*), house wren (*Troglodytes aedon*), and song sparrow (*Melodia melospiza*).

Raptor Foraging and Nesting

Raptors observed in the project area include: Cooper's hawk *(Accipiter cooperi)*, sharp-shinned hawk *(Accipiter striatus)*, golden eagle (*Aquila chrysaetos*; observed once during the 2010 mammal trapping study), red-tailed hawk *(Buteo jamaicensis)*, red-shouldered hawk *(Buteo lineatus)*, northern harrier (*Circus cyaneus*), turkey vulture (*Cathartes aura*), and white-tailed kite (*Elanus leucurus;* non-breeding season observation).

The woodland and riparian forest habitats in the Gomez Creek canyon on the western side of the property provide nesting opportunities for Cooper's hawk, red-tailed hawk and red-shouldered hawk (24.0 acres). There are opportunities for large raptors' foraging throughout the grasslands, extensive agriculture, and sparse native habitat areas like disturbed coastal sage scrub in the project area (approximately 120.0 acres). Grasslands in the project area are limited to ranch areas, primarily associated with active pastures, and there is a small amount of valley needlegrass grassland in the project area. Due to the high level of ranch activities, grasslands are considered moderate value for foraging.

In the context of region's undeveloped and low-density rural areas stretching from I-15 east to Lake Henshaw, north to the Palomar Mountains, and south to Escondido, the project area is only

a small part of a large block that supports numerous raptor foraging and nesting opportunities in the project region.

Foraging opportunities for golden eagle in the project area are in open or sparse habitats to allow for their large wing-spans. Based on the very low frequency of golden eagle observations in the project area use of the site for foraging is expected to be opportunistic rather than high. If foraging use in the project area by golden eagle was high, a greater frequency of observations of this species during the multiyear, multisurvey effort conducted in the project area would be expected.

Migratory Bird Species

These are expected to primarily occur in wooded habitats associated with Gomez Creek; however, migrants could pass through any area in the project area and typically would only remain for a brief period (e.g., one day to one week). Diversity of migrants observed in the project area was low and included the following winter migrants: sharp-shinned hawk, western bluebird (*Sialia mexicana*), yellow-rumped warbler (*Dendroica coronata*), white-crowned sparrow (*Zonotrichia leucophrys*) and American robin (*Turdus migratorius*). Summer migrants observed included: yellow warbler, Pacific slope flycatcher, cliff swallow, and black-headed grosbeak.

Nesting Species

Both resident bird species and summer migrants nest in the project area. Typical resident species include acorn woodpecker, black phoebe, western scrub jay, and other passerine species. Potentially nesting summer migrants include Pacific slope flycatcher, cliff swallow, yellow warbler, black-headed grosbeak, among others. These species nest in a variety of habitats, including natural, undeveloped areas; and buildings, bridges, and culverts. In the project area, suitable nesting for bird species includes upland scrub, chaparral, riparian scrub and woodland, oak woodland and forest, agricultural land, ornamental plantings, and grassland. These habitats are similar to vegetation communities found within the San Luis Rey River valley and adjacent hillsides. In addition, the area provides nesting opportunities for many common bird species.

Mammals. A total of 18 common mammal species were observed, including bobcat (*Lynx rufus*), brush rabbit (*Sylvilagus bachmani*), western gray squirrel (*Sciurus griseus*), California ground squirrel (*Spermophilus beecheyi*), coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), Botta's pocket gopher (*Thomomys bottae*) and raccoon. Gomez Creek likely serves as a local wildlife corridor for these mammals as well as mountain lion (*Puma concolor*), coyote, and gray fox (*Urocyon cinereoargenteus*).

Invertebrates. A total of 28 butterfly species were recorded, including funeral duskywing (*Erynnis funeralis*), Behr's metalmark (*Apodemia mormo virgulti*), western tailed blue *(Everes amyntula*),

acmon blue (*Plebejus acmon*), common buckeye (*Junonia coenia*), Lorquin's admiral (*Limenitis lorquini*), tiger swallowtail (*Papilio glaucus*), and mourning cloak (*Nymphalis antiopa*).

Fish. A trout was found in Gomez Creek, but it was found by a CDFW biologist to have originated from the upstream owner's stock pond and is not the southern steelhead species (*Oncorhynchus mykiss irideus*).

2.3.1.1.5 Special Status Species

County List A and B Species – Plants that are Rare and Endangered

Sensitive plants include those listed by the U.S. Fish and Wildlife Service (USFWS) or CDFW; or are candidates for listing; and/or are considered sensitive by CDFW, the County, and/or the California Native Plant Society (CNPS). Appendix E lists the special-status plant species (CNPS and California Natural Diversity Database (CNDDB) occurrences) reported in the U.S. Geological Survey 7.5-minute Pala and Pechanga quadrangles and the surrounding 10 topographic quadrangles, as well as those species' potential to occur in the project area based on habitat associations, preferred soil substrate, life form, elevation, and blooming period. More detailed information on their regional distribution and status is provided in the Biological Resources Report.

A total of seven special-status plant species were observed in the project area. Sensitive plant species surveys were conducted during the appropriate times of year throughout the spring and summer months during two years. Based on the presence/absence surveys, no other special-status species are expected to occur in the project area.

Rainbow manzanita (*Arctostaphylos rainbowensis*). This is not a state or federally listed species, but it is a CRPR 1B.1 and County List A species. A total of seven individuals occur in the project area; six of these occurrences are in the northwestern portion of the project area and one is located in the northeastern portion of Warner Ranch (Figure 2.3-1A).

Parry's tetracoccus (*Tetracoccus dioicus*). Parry's tetracoccus is not a state- or federally listed species, but it is a CRPR 1B.2 and County List A species. Approximately 524 individuals were mapped in the western portion of the project area (Figure 2.3-1A).

County List C and D Species – Plants that are of Limited Distribution and may be Rare

Prostrate spineflower (*Chorizanthe procumbens*). This is not a state- or federally listed species. This species was considered for inclusion in the California Native Plant Society's Inventory of Rare and Endangered Plants, but it was rejected because it was considered too common. Although this species does not have any federal, state, or County status, the County

recommended that this species be included in the environmental analysis. Approximately 410 individuals were mapped in the southeast portion of the project area (Figure 2.3-1A). This species is widespread and relatively common in its range and the project area does not support a substantial population of prostrate spineflower.

Palmer's grappling hook (*Harpagonella palmeri*). This is not a state- or federally listed species, but is a CRPR 4.2 species and County list D species. Approximately 650 individuals were mapped west of Gomez Creek (Figure 2.3-1A). The project area does not likely support a substantial population of Palmer's grappling hook.

Graceful tarplant (*Holocarpha virgata* ssp. *elongata*). This is not a state or federally listed species, but is a CRPR 4.2 species and County list D species. Approximately 23,500 individuals were mapped in the eastern portion of the project area (Figure 2.3-1A). Although a large number of individuals were observed, this population size is not unusual for this species which is highly abundant where it occurs. Also, the lack of recorded occurrences in this area is not unusual given that the project area is within the known range of the species and, due to its low sensitivity status, observations are not always recorded in public databases.

Engelmann oak (*Quercus engelmannii*). This is not a state or federally listed species, but is a CRPR 4.2 species and County list D species. Twelve oaks were mapped along Gomez Creek and one was mapped in the eastern portion of the project area (Figure 2.3-1A). The project area supports a typical distribution for a small population of Engelmann oak in San Diego County.

Rush-like bristleweed (*Xanthisma junceum*). This is not a state or federally listed species, but is a CRPR 4.3 species and County list D species. Five locations were mapped in the northwest corner of the project area (Figure 2.3-1A). The five individuals recorded do not represent a substantial population of this species.

County Group I Species – Animals that are Rare and Endangered

Sensitive animals are species or subspecies that are listed as threatened or endangered, or are being evaluated (proposed) for listing by USFWS or CDFW, and/or are considered sensitive by CDFW or the County. Focused/protocol surveys were conducted for California gnatcatcher, southwestern willow flycatcher, least Bell's vireo, Quino checkerspot butterfly, arroyo toad, trout, and Stephens' kangaroo rat in the project area. An additional survey for golden eagle use of the site and nest sites was conducted in areas historically supporting a golden eagle nest, and a habitat assessment was conducted for Hermes copper butterfly. In total, 45 special-status wildlife species were observed or have potential to occur in the project area. The County Group I species that have been observed in the project area, or have high potential to occur are described below.

Amphibians

Arroyo Toad (moderate potential to occur). Arroyo toad is a federally endangered species and County Group I species. The arroyo toad is found along low-gradient streams in coastal and desert drainages as well as high-elevation valleys in Southern California and northern Baja California, Mexico. It uses aquatic, riparian, and upland habitats to different degrees depending on an individual's stage of development, the time of year, and the weather. Breeding and larval development occur within aquatic habitats; foraging may occur within drying stream beds, terraces adjacent to breeding sites, and nearby uplands, where aestivation and overwintering also occur. Outside of the breeding season, juvenile and adult arroyo toads are terrestrial and spend most of their lives on open terraces and in riparian habitats, typically adjacent to breeding locations, and, less commonly, moving into upland habitats.

Focused surveys for arroyo toad were conducted in 2005 and 2010 within Gomez Creek were negative in both years. The entire extent of Gomez Creek on site was surveyed in both years. Suitable habitat was also identified in Pala Creek; but as no water was present at the time of the surveys, no surveys were conducted in Pala Creek.

CNDDB and USFWS databases show records within 1 kilometer of the project area in the San Luis Rey River and Pala Creek. In addition to breeding habitat, the County requires a review of all suitable aestivation and foraging habitat within 1 kilometer of occupied breeding habitat or suitable stream segments (County of San Diego 2010). The San Luis Rey River and Pala Creek are considered suitable habitat for arroyo toad. Habitat in the project boundary within 1 kilometer of the San Luis Rey River and Pala Creek arroyo toad locations was reviewed. Areas that had slopes greater than 66 percent and active (intensive) agriculture areas were excluded (e.g., orchards, regularly disked, farmed, or grazed areas). Suitable habitat was further reduced when barriers (e.g., existing development, major roads) constraining movement from the San Luis Rey into the project area were considered. Barriers between the project area and the San Luis Rey River and Pala Creek include active agriculture, the Pala Casino and associated parking lots, SR 76, and steep upland slopes, residences and other development adjacent to the eastern boundary of the project area. The only likely movement into the project area is through the culvert at Gomez Creek under SR 76 or in Pala Creek when it supports flowing water. There are 18.4 acres of suitable aestivation habitat within 1 kilometer of the San Luis Rey breeding location, if arroyo toad migrates across SR 76 to the site in the future.

Within the project site, approximately 1.3 acres of land was identified as suitable arroyo toad breeding habitat (Figure 2.3-3). This includes the mulefat scrub within the lower reaches of Gomez Creek in the project area, and the non-vegetated channel in Pala Creek, both of which are within the proposed open space portions of the project. The lower reach of Gomez Creek dried early in the season during 2005 and 2010 focused surveys. Annually, this area typically does not

maintain a flowing water connection with the San Luis Rey River through areas identified as suitable breeding habitat on site throughout the arroyo toad breeding season. Additionally, the closed-canopy oak woodland along the upper reach of Gomez Creek on site constitutes unsuitable breeding habitat for the species. Based on the negative surveys for arroyo toad, it is not breeding there.

Currently, the suitable breeding habitat on site within lower Gomez Creek is of marginal quality, due to disturbance from agricultural activities. The adjacent upland areas would be considered suitable for aestivation, if arroyo toad were to establish in Gomez Creek in the future. Approximately 37.0 acres of potentially suitable aestivation habitat was identified adjacent to the potential suitable breeding habitat on site (Figure 2.3-3), with most of these areas comprised of active pasture lands within the ranch. Additional vegetation communities considered suitable for arroyo toad aestivation on site include disturbed coastal sage scrub, mulefat scrub, non-native grassland, disturbed southern coast live oak riparian forest, and sycamore alluvial woodland adjacent to suitable breeding areas on site (Figure 2.3-3). Arroyo toad has moderate potential to occur within the project site.

Birds

Southwestern Willow Flycatcher (low potential to nest; may pass through site). Southwestern willow flycatcher is a federally and state-endangered species and County Group I species. There are approximately 17.3 acres of suitable habitat for southwestern willow flycatcher in the project area (Figure 2.3-3). Focused surveys were negative, and no incidental observations of this species have been made during any of the field surveys. There are two CNDDB records from 2000 in the San Luis Rey River within 1 mile of the project area, and there is critical habitat located in portions of the San Luis Rey River to the south. There is some suitable habitat on site within southern coast live oak riparian forest and southern cottonwood-willow riparian forest. Based on two years of negative results from focused surveys, this species has a low potential to breed in the project area.

California Gnatcatcher (moderate potential to occur). California gnatcatcher is a federally threatened species and County Group I species. Focused surveys were conducted in 2005 and 2010 in suitable coastal sage scrub habitat and habitat sub-associations (southern cactus scrub, Baccharis scrub, etc.). The 2005 surveys included all suitable habitat types on site, including steep slopes, and the 2010 survey excluded slopes greater than 50 percent. There are approximately 140.5 acres of suitable habitat in the project area with the exclusion of slopes greater than 50 percent (Figure 2.3-3). Both surveys were negative, and no incidental observations of this species have been made during any of the field surveys. The closest USFWS records are approximately 1 mile to the east and west and there is critical habitat in the northwestern portion of the project area. The California gnatcatcher has a moderate potential to

occasionally use the site; however, based on the negative results from two focused surveys, this species is not currently breeding in the project area.

Least Bell's Vireo (low potential to nest; observed passing through site). Least Bell's vireo is a federally and state-endangered species and County Group I species. There are approximately 17.3 acres of suitable habitat for least Bell's vireo in the project area (Figure 2.3-3). Focused surveys for least Bell's vireo were conducted in 2005 and 2010. Both of these surveys were negative, and based on these results, this species has a low potential to breed in the project area. One individual was observed outside of the breeding season in southern cottonwood-willow riparian forest along Gomez Creek in 2010; this individual likely represents a migrant traveling away from a breeding location off site after the breeding season ended. There is some critical habitat and abundant breeding territories in portions of the San Luis Rey River to the south. In the project area, some suitable habitat occurs within southern coast live oak riparian forest and southern cottonwood-willow riparian forest in the project area, but based on the negative results from the two focused surveys, this species is not expected to nest in the project area; this bird is known to occasionally visit the site as a migrant.

Golden Eagle (moderate potential to forage). Golden eagles are USFWS Birds of Conservation Concern (BCC) species, a fully protected species, CDFW watch list species, and County Group I species. One golden eagle (*Aquila chrysaetos*) was observed flying over the eastern portion of the project area during the small mammal trapping reconnaissance in October 2010. Since it was observed flying over the project area, its location is not represented on Figure 2.3-1A. This species has not been observed during any of the other surveys in 2005, 2008, or 2010. There is no suitable nesting habitat in the project area but potential foraging habitat is present.

A review of CNDDB records indicates that the closest known active golden eagle nest location is approximately 9,500 feet to the southwest on hills south of the San Luis Rey River. Two additional approximate historical locations of golden eagle nests were recorded in CNDDB, one of which has subsequently been removed due to potential poaching concerns. The CNDDB indicates that one of the golden eagle nests was detected in 1974, located in a coast live oak within dwarf oak/chamise habitat in the hillside west of the project area. An additional location is shown in CNDDB located approximately 1,100 feet away within the San Luis Rey River near SR 76 and a nursery southwest of the project area and east of the old Hanson ponds (which are now owned by the Pala Band of Mission Indians).

Both of these locations were surveyed in the fall of 2011 to determine if golden eagle nests are currently located in these areas. Although the survey was conducted during the non-breeding season, golden eagle nests are readily discernible from other nests due to their size (average 10 feet in width). In the hills west of the project area, there are no coast live oaks and no suitable nesting sites for golden eagle (e.g., cliff faces). Part of this area also has been burned within the

last few years, creating an open landscape that is not suitable for golden eagle nesting opportunities. This area supports a mix of coastal sage scrub and southern mixed chaparral with no large trees. All coast live oaks and other tree species within the vicinity of the nest location in the San Luis Rey River were searched for raptor nests. There were several raptor nests in the riparian woodland along the San Luis Rey River detected during the nest survey; however, these nests were between one and three feet in diameter and not large enough to support golden eagles. These nests most likely would be used by smaller raptor species such as Cooper's hawk, red-shouldered hawk, American kestrel, red-tailed hawk, or great horned owl.

This portion of the San Luis Rey River was surveyed again in January 2012 when the leaves had fallen from most of the trees and raptor nests were easily visible. No nests were observed that would have been large enough to support golden eagles. Furthermore, this area has a high level of human activity with vegetation clearing, off-road all-terrain-vehicle use, SR 76 traffic, and active nursery activities directly adjacent the 1974 nest site location. These human activities likely discourage golden eagle nesting activity in this area.

There is a known eagle nest at Gregory Canyon. The Draft Eagle Conservation Plan (USFWS 2011) requires that projects identify eagle use areas within a 10-mile radius of that nest location. *The Gregory Mountain Golden Eagle Territory in San Diego County, California: A Compilation of Historical Data* report (WRI 2012) describes golden eagle territories as generally 20 to 25 square miles (12,800.0 to 16,000.0 acres). A 10-mile radius buffer around the project area includes the Gregory Canyon nest. Therefore, the project site would be part of the Gregory Canyon golden eagle's estimated territory of 20 to 25 square miles and would impact 91.0 acres of low to moderately suitable raptor foraging habitat (less than 1 percent of the estimated territory).

Foraging opportunities for golden eagle in the project area are limited to open or sparse habitats to allow for their large wing-spans occurring outside of a certain buffer from human activity. Given the proximity of the Gregory Mountain golden eagle territory, a more site-specific eagle use area within the project footprint was estimated upon consultation with USFWS staff. The estimate of the most likely utilized foraging habitat included extensive agriculture and grassland habitat outside of a 500-foot buffer from existing developed areas (i.e., ranch operations, SR 76, Pala Casino, and surrounding residences. Approximately 13.6 acres of foraging habitat within the project area met these criteria.

USFWS staff concluded that the project would not result in take of golden eagle, but that a long-term study of golden eagle use of the site should be incorporated with the Resource Management Plan for the project's open space.

Bald Eagle (*Haliaeetus leucocephalus*) (no potential to occur). These birds are not expected to occur or utilize the project area because they forage in ponds and lakes and nest in large trees in

proximity to major lakes for access to their preferred food source (fish and waterfowl). The closest permanent lake is 9.3 miles to the north (north of SR 79) in Riverside County.

Cactus Wren (nesting on site). Cactus wren is a designated USFWS Birds of Conservation Concern (BCC), CDFW Species of Special Concern (SSC), and County Group I species. Cactus wren was observed on site within suitable cactus scrub habitat. There are two resident pairs of cactus wren in the project area (Figure 2.3-1A). Coastal cactus wrens inhabit areas where cactus, primarily *Opuntia* species, is present. Cactus wren nests were also found on site in *Opuntia* tall enough to support their nests.

There are limited populations of cactus wren along the San Luis Rey River, approximately half a mile west of the project area; as well as a cluster of breeding cactus wren west of the project area at the Camp Pendleton/Fallbrook Naval Weapons Station Research in 2013 documented four locations of cactus wren along the river east if I-15, with two to the east of the project site and two to the west. Based on genetic sampling, these wrens appear to be genetically clustered with the San Pasqual Valley population and suggests connectivity between these populations may occur through Valley Center (Barr et al. 2013).

The southern cactus scrub habitat is considered Sensitive Habitat Lands under the RPO, because it supports cactus wren pairs. Because there are relatively few pairs within the San Luis Rey River valley, the on-site pairs are likely important to the ongoing viability of the species in this area.

Invertebrates

Quino Checkerspot Butterfly (low potential to occur). Quino checkerspot butterfly is a federally endangered species and County Group I species. Focused surveys for Quino checkerspot butterfly were conducted in 2005 and protocol surveys were conducted in 2008. The surveys were negative. The closest known location is one CNDDB record approximately six miles north of the project area from 1997; the largest recent cluster of occurrences is approximately nine miles northeast of the near the Vail Lake/Oak Mountain Unit. In March 2011, one Quino checkerspot butterfly was observed north of the community of Warner Springs, in an area where it had not been previously recorded. Warner Springs is approximately 27 miles east of the project area. Considering short dispersal distances and the locations of known populations of Quino checkerspot butterflies, the project area is unlikely to become occupied by this species (low potential).

Mammals

Stephens' Kangaroo Rat (low potential to occur). A protocol survey for the federally listed endangered Stephens' kangaroo rat was conducted in 2010 and was negative. There are no documented captures of Stephens' kangaroo rat in the immediate project area vicinity, and there

is limited potential for colonization to occur since the areas surrounding the grasslands in the project area are dominated by dense coastal sage scrub, chaparral or in citrus or avocado orchards. Based on negative trapping results and site evaluation, there is no suitable habitat on the project site.

Reptiles

Two-striped garter snake (observed). While this snake is not state- or federally listed, it is a SSC and County Group I species. It was observed near the upper reaches of Gomez Creek within proposed biological open space. On site, suitable habitat includes southern coast live oak riparian forest (including disturbed), southern cottonwood-willow riparian forest, and sycamore woodlands.

County List II Species – Animals that are of Limited Distribution and may be Rare

Birds

Southern California rufous-crowned sparrow has no federal or state status. It was detected in the project area during wildlife surveys (Figure 2.3-1A). Suitable nesting habitat in the project area includes coastal sage scrub and chaparral habitats; they could also use extensive agriculture and grasslands for foraging.

Western bluebird has no state or federal listing. It was detected in the project area during wildlife surveys, although the location was not mapped. Suitable habitat in the project area includes the oak woodland habitat along Gomez and Pala Creeks.

Great blue heron and yellow warbler were observed during wildlife surveys. The location of yellow warbler is on Figure 2.3-1A; the location of the great blue heron was not mapped. Suitable habitat for great blue heron is found within Gomez Creek where water is present during part of the year, but it is also found in many open habitats during migrations. Due to limited water resources within the project area, this site is not an important foraging or nesting area for great blue heron or yellow warbler.

Cooper's hawk, sharp-shinned hawk, red-shouldered hawk, were observed primarily in the woodland and riparian forest habitats of the Gomez Creek canyon on the western side of the property. The turkey vulture, northern harrier, and white-tailed kite were observed flying overhead foraging over the more open habitats of the project area during wildlife surveys. Because white-tailed kite and northern harrier were observed less frequently during the high number of survey hours in the project area, they are likely opportunistically using the area for foraging or passing over the site. The location of Cooper's hawk is on Figure 2.3-1A; the locations of the other raptors were not mapped.

Coastal western whiptail, northern red-diamond rattlesnake, and Blainville's horned lizard are Group II species that were observed on site during wildlife surveys. The location of northern red-diamond rattlesnake is on Figure 2.3-1A; the locations of the other reptiles were common enough in habitat that they were not mapped. The western whiptail is found in woodland and streamside growth, and avoids dense grassland and thick shrub growth. The horned lizard is found in open scrub. One additional reptile species that has a high potential to occur based on suitable habitat is the orange-throated whiptail (*Aspidoscelis hyperythrus*).

Invertebrates

Hermes Copper Butterfly (no potential to occur). Hermes copper butterfly (Lycaena hermes) is a County Group I Sensitive Species, and must be considered for projects in San Diego County that have habitat to support this species' larval host plant, spiny redberry, near its preferred adult nectaring plant, California buckwheat. Hermes copper butterfly is a rare species, restricted to San Diego County and northern Baja California, Mexico. In San Diego County, its historical range is from northern San Diego County near Fallbrook and Pala south into Baja California, and from the coast east to Pine Valley (County of San Diego 2010). Fires and habitat loss have reduced populations of this species (County of San Diego 2010). Hermes copper butterfly is not considered special-status by Federal or state agencies, but it is on CDFG's Special Animals List (CDFG 2011). The County (2010) describes its reasons for inclusion in this report as follows:

Though not state or federally listed, the Hermes copper meets the definition of endangered under CEQA Sec. 15380 because its "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." The County's determination that the Hermes copper meets the definition of endangered under CEQA is based on the loss of Hermes copper populations by development and wildfire, and the review of published and unpublished literature.

A habitat assessment was conducted in suitable habitat in the western portions of the project area within the 500-foot buffer. Habitat that could support spiny redberry and California buckwheat includes coastal sage scrub, southern mixed chaparral, scrub oak chaparral, and mulefat scrub. The habitat assessment was negative for spiny redberry in the habitats selected within 150 meters from the proposed residential development; there is no suitable habitat for Hermes copper butterfly within the surveyed buffer. While there is a historical record of Hermes copper near Pala, the closest current CNDDB record is approximately 36 miles south of the project area from 2007. Other records in the County are slightly further away, but are in the same general location, approximately 36 to 45 miles south and southeast of the project area (dated between 2003 and 2008). No Hermes copper butterflies were observed during wildlife or plant surveys and none are expected.

Monarch butterfly was detected in the project area. There are no eucalyptus woodlands in the project area to support wintering populations of this species although it could use the site for dispersal.

Mammals

Northwestern San Diego pocket mouse, mountain lion, San Diego desert woodrat, and mule deer (or their sign) were observed during wildlife surveys (see Figure 2.3-1A). Another species that has high potential to occur based on suitable habitat is ringtail, although this would be within proposed open space within the dense wooded areas along the northern portion of Gomez Creek in southern cottonwood–willow riparian forest and southern coast live oak riparian forest.

2.3.1.1.6 Jurisdictional Wetlands/Waters

A wetland delineation performed by Dudek in 2010 identified waters (wetlands and non-wetland) under the jurisdiction of the ACOE, RWQCB, CDFW, and RPO and additional waters (wetlands and non-wetland) only under the jurisdiction of CDFW and County (Table 2.3-2, Jurisdictional Delineation Summary).

A total of 8.6 acres of ACOE, RWQCB, CDFW, and RPO jurisdictional wetlands, 0.04 acre of non-vegetated channel of ACOE, RWQCB, CDFW, and County jurisdictional waters, and 0.9 acre (13,518 linear feet total) of non-wetland drainages (ephemeral stream channels) under the jurisdiction of ACOE, RWQCB, and CDFW occur within the project area.

An additional 15.4 acres of CDFW and RPO waters, and 0.3 acre (5,853 linear feet) of non-wetland drainages under the jurisdiction of CDFW only occur within the project area. These jurisdictional wetlands do not meet ACOE and RWQCB criteria for wetlands because they are either located above the OHWM and do not support all three required wetlands parameters or are located in the eastern-central portion of the site which is hydrologically isolated from downstream waters such as the San Luis Rey River.

It should be noted that non-wetland drainages are mapped as an overlay in relation to the vegetation community mapping and therefore are not added in the cumulative total acreages of the site; all non-wetland drainages are mapped within non-jurisdictional upland vegetation communities.

Waters and Wetlands Functions and Values. The functions and values of on-site waters and wetlands are characterized as having a low, moderate, or high ability to provide the following:

1. Flood storage and flood flow modification. Both Gomez and Pala Creeks have high flood storage and flood flow modification abilities. Gomez Creek has an approximately 10- to 20-foot-wide channel bed that is deeply incised within the downstream portion of the site surrounded by mature riparian vegetation, which flows relatively unrestricted south to the

SLR River. Pala Creek is approximately 10 to 20 feet wide with similar flows to the SLR River. Both channels hold and distribute water for a period of time.

The channel with isolated wetlands in the eastern portion of the property is wide with herbaceous vegetation that helps control flow. This area has moderate flood storage and flood flow modification abilities. The channel is approximately 5 to 10 feet wide with a sandy bottom and has vegetation present to help control flow.

The other non-wetland small ephemeral channels in the project area lack substantial width, depth, and vegetation and thus have low flood storage and flood flow modification abilities.

2. Nutrient retention and transformation. Portions of the project area are occupied by agricultural fields, cattle grazing, and associated ranch housing, and some of these areas are adjacent to Gomez Creek and Pala Creek. The creek channels receive runoff from the agricultural fields which contain pesticides, fertilizers, and other agricultural substances; and cattle may graze through portions of the creek resulting in deposition of associated waste. Because Gomez Creek has some areas of ponding and areas of herbaceous layers, this indicates that this channel has high nutrient retention and transformation ability. Isolated wetlands in the eastern portion of the site have many herbaceous plants within the channels, which could provide moderate nutrient retention and transformation ability. Pala Creek and other waters on site lack areas of ponding and herbaceous vegetation to filter chemicals and thus have a low nutrient retention and transformation ability.

3. Groundwater recharge. Pala Creek and isolated wetlands in the eastern portion of the property have wide, sandy bottom channels that give them high groundwater recharge ability. Because Gomez Creek has hydric soils as well as rocky areas providing slower percolation rates, it has moderate groundwater recharge ability. Other on-site waters have a low groundwater recharge ability due to substrates, lack of sandy soils, and higher slopes.

4. Sediment trapping. A number of the small tributaries feeding Gomez Creek carry sediment during storm flow, and the creek has a high sediment trapping ability due to its wide channel, areas for retention, and presence of herbaceous vegetation in some areas. The isolated wetlands in the eastern portion of the creek are characterized by a relatively flat slope and herbaceous vegetation and thus have moderate sediment trapping ability. The remaining channels lack herbaceous vegetation to slow flow and trap sediment or high slopes precluding ponding; thus these areas have a low sediment trapping ability.

5. Toxicant trapping. Toxicant (pesticides and fertilizers) trapping abilities of the project area channels are the same as described above under nutrient retention and transformation.

6. Wildlife habitat. Habitats along Gomez Creek, Pala Creek, and isolated wetlands in the eastern portion of the site support native riparian habitats which can support a variety of birds, mammals, reptiles, and amphibians. Ephemeral waters on site do not provide vegetation or cover, but could still support smaller wildlife species such as rodents, reptiles, invertebrates, and amphibians.
7. Aquatic habitat. Because Gomez Creek usually has year-round water flow, it provides potential habitat for fish, amphibians, and aquatic reptiles. The remaining channels do not have regular water flow to support these species.
8. Public use. Presently there is no public access to Warner Ranch.

2.3.1.2 Regulatory Setting

Several federal and state regulations apply or provide guidance to the proposed project when considering biological resources. This section provides a regulatory overview of the requirements for projects with potential impacts to sensitive resources, including sensitive habitats, endangered and threatened species, and wetlands and waters.

Federal Endangered Species Act

Under the federal Endangered Species Act (FESA), "take" (defined as hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill) of listed species is prohibited unless authorized by USFWS. If a project has the potential to take a listed species, consultation with USFWS would be required, pursuant to Section 7 or Section 10A of the FESA, to determine if the project would jeopardize the continued existence of any of these federally regulated species. As part of the consultation process, a Biological Assessment would be submitted, outlining the potential impacts to federally listed, proposed, and candidate species, and proposing the reasonable and prudent measures to avoid or minimize potential take of these species. USFWS would issue a Biological Opinion (BO) to document the effects of the proposed project on the long-term viability of the species affected and any incidental take provisions. The BO can allow the "incidental take," or establish "jeopardy" and disallow any "take."

With the exception of one incidental siting (in migration) of an endangered least Bell's vireo, habitat indicators and previous protocol surveys indicate absence of federally listed species on the project site. FESA Critical Habitat for endangered arroyo toad is present on the project site. As a precaution, preconstruction surveys will be required in arroyo toad habitat, as determined by the project biologist in consultation with USFWS. If it is determined that arroyo toad is present in the project development area, then a FESA take permit would be obtained. The consultation process and the requirement to incorporate reasonable and prudent measures to avoid or minimize impacts could also include additional compensation in the form of dedication

of open space easements over suitable habitat or enhancement of habitat for toad use on the project site as a condition of the FESA take permit. For federally listed threatened California gnatcatcher, the Natural Community Conservation Plan (NCCP) is a Section 10A Habitat Conservation Plan and covers incidental take (by obtaining a Habitat Loss Permit).

Migratory Bird Treaty Act

The MBTA restricts killing, taking, collecting, and selling or purchasing native bird species or their parts, nests, or eggs. Certain gamebird species are allowed to be hunted for specific periods, as determined by federal and state governments. The intent of the MBTA is to eliminate any commercial market for migratory birds, feathers, or bird parts, especially for eagles and other birds of prey. Although no permit is issued under the MBTA, if vegetation removal within the project area occurs during the breeding season for raptors and migratory birds (February 1 through September 15), surveys would be conducted to locate active nests within the construction area. If active raptor or migratory bird nests are detected, project activities may be temporarily curtailed or halted.

The MBTA is relevant to the project because migratory bird species, such as Cooper's hawk and white-tailed kite, are known to the project site, and are covered by the MBTA. Potential impacts to bird species protected under the MBTA are analyzed in Section 2.3.2.

Bald and Golden Eagle Protection Act of 1940

The Federal Bald and Golden Eagle Protection Act of 1940 provides for protection of the golden eagle nationwide by prohibiting the taking of eagles, including their parts, nests, or eggs. The act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb."

The Bald and Golden Eagle Protection Act is relevant to the project because bald and golden eagles have been observed using a portion of the project site for foraging. The definition in the act most relevant to this project is "disturb." For the purposes of this act, the term "disturb" is defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle; (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior" (Federal Register, September 11, 2009). The project's conformance with the Act is analyzed in Section 2.3.2.

Section 404 of the Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA), ACOE regulates the discharge of dredged or fill material into "waters of the United States." Waters of the United States are defined as follows:

> (1) all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including such waters: (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) which are used or could be used for industrial purposes by industries in interstate commerce; (4) all impoundments of waters otherwise defined as waters of the United States under the definition; (5) tributaries of waters identified in paragraphs (1) through (4) of this section; (6) the territorial seas; and (7) wetlands adjacent to waters identified in paragraphs (1) through (6) (33 Code of Federal Regulations [CFR] 328.3[b]; 40 CFR 230.3[t]).

However, as a result of a U.S. Supreme Court decision (*Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers,* No. 99-1178, January 9, 2001), ACOE no longer has direct regulatory authority over many isolated intrastate waters, including wetlands.

ACOE defines wetlands as follows:

> Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3[b]; 40 CFR 230.3[t]).

ACOE developed standard methods (ACOE Wetland Delineation Manual) to identify and delineate wetland boundaries for the purpose of Section 404 regulation. A wetland determination is based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. ACOE's Wetland Delineation Manual uses primarily field-based indicators to determine whether the three parameters are present. The presence of positive indicators of all three parameters is necessary for a site to qualify as jurisdictional wetlands.

In the absence of wetlands, the limits of ACOE jurisdiction in nontidal waters, such as rivers, streams, lakes, and ponds, extends to the Ordinary High Water Mark (OHWM). The OHWM can also be conceptualized as the lateral extent of the active channel, usually the area just below the first terrace.

This CWA applies to portions of the project that include wetlands or other waters of the United States, such as the on-site creeks, drainages, and vernal pools. Potential impacts to these waters are analyzed in Section 2.3.2.

Section 1600 of the California Fish and Game Code

Under Sections 1600–1607 of the California Fish and Game Code, CDFG regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFG jurisdiction are defined in the code as the "bed, channel, or bank of any river, stream, or lake designated by [CDFG] in which there is, at any time, an existing fish or wildlife resource or from which these resources derive benefit." The California Code of Regulations (14 CCR 1.72) defines a stream as follows:

> [A] stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.

In practice, CDFG usually extends its jurisdictional limit to the top of a stream or lake bank or the outer edge of the riparian vegetation, whichever is wider. Riparian habitats do not always have identifiable hydric soils, or clear evidence of wetland hydrology as defined by ACOE. Therefore, CDFG wetland boundaries often extend beyond ACOE wetland boundaries, which sometimes include only portions of the riparian habitat adjacent to a river, stream, or lake.

The California Fish and Game Code applies to portions of the project that include the on-site creeks, drainages, and riparian habitats. Potential project impacts to these riparian areas are discussed in Section 2.3.2.

Section 401 of the Clean Water Act

The RWQCB has primary authority for permit and enforcement activities under the Porter-Cologne Water Quality Control Act (Cal. Water Code 13000–13999.10) and the CWA. Section 401 of the CWA requires certification from the California RWQCB that the proposed project is in compliance with established water quality standards. Projects that have the potential to discharge pollutants are required to comply with established water quality objectives.

Under Section 401 of the CWA, the RWQCB implements the water quality certification process for any activity that requires a federal permit or license and that may result in the discharge of pollutants into waters of the United States, including wetlands. The RWQCB determines whether the activity would comply with state water quality objectives and, subsequently, either issues a certification with conditions or denies the certification. Water quality standards, according to the CWA (40 CFR 131), include beneficial uses, water quality objectives, and the antidegradation policy.

No license or permit may be issued by a federal agency until certification required by Section 401 has been granted. Under the CWA, ACOE Section 404 permits are subject to RWQCB Section 401 water quality regulation. ACOE cannot issue an individual or Nationwide 404 permit until a 401 certification has been obtained from the RWQCB. For the 401 certification process, the RWQCB typically uses the delineation verified by ACOE as the basis for determining impacts to waters of the United States.

Section 401 of the CWA is applicable to project components that may result in increased sedimentation, polluted runoff, and other impacts that, in turn, could cause indirect effects to sensitive biological species. Section 401 certification would be required as part of the Section 404 permit authorization process, and is anticipated to be issued concurrently. These indirect effects are discussed in Section 2.2.2, and are also discussed in the Hydrology and Water Quality section.

County of San Diego Resource Protection Ordinance

The 2007 RPO includes special controls on development for the County's wetlands, floodplains, steep slopes, sensitive habitat lands, and prehistoric and historic sites. The RPO protects such sensitive lands by requiring a Resource Protection Study for certain discretionary projects. If the Resource Protection Study identifies RPO wetlands, RPO wetland buffers, or RPO sensitive habitat lands, then avoidance or avoidance to the maximum extent feasible and mitigation is required.

According to County Code Section 86.602 of Chapter 6 of the RPO, wetlands and wetland buffers are defined as follows:

> (q) "'Wetland':
>
> (1) Lands having one or more of the following attributes are 'wetlands':
>
> (aa) At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);
>
> (bb) The substratum is predominantly undrained hydric soil; or
>
> (cc) An ephemeral or perennial stream is present, whose substratum is predominantly non-soil, and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

(2) Notwithstanding paragraph (1) above, the following shall not be considered 'wetlands':

(aa) Lands which have attribute(s) specified in paragraph (1) solely due to [human-built] structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Land Use determines that they:

(i) Have negligible biological function or value as wetlands;

(ii) Are small and geographically isolated from other wetland systems;

(iii) Are not vernal pools; and

(iv) Do not have substantial or locally important populations of wetland dependent sensitive species.

(bb) Lands that have been degraded by past legal land disturbance activities, to the point that they meet the following criteria, as determined by the Director of Planning and Land Use:

(i) Have negligible biological function or value as wetlands even if restored to the extent feasible; and

(ii) Do not have substantial or locally important populations of wetland-dependent sensitive species.

(Note: Activities on lands not constituting 'wetlands' because of this paragraph (2) may still be subject to mitigation, avoidance, and permitting requirements pursuant to CEQA or other applicable County, state, and federal regulations.)

(r) 'Wetland Buffer': Lands that provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community. Buffer widths shall be 50 to 200 feet from the edge of the wetland, as appropriate based on the above factors. Where oak woodland occurs adjacent to the wetland, the wetland buffer shall include the entirety of the oak habitat (not to exceed 200 feet in width).

(n) 'Sensitive Habitat Lands': Land which supports unique vegetation communities, or the habitats of rare or endangered species or sub-species of animals or plants as defined by Section 15380 of the CEQA Guidelines, including the area which is necessary to support a viable population of any of the above species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning wildlife corridor."

The RPO applies to the project because the site contains wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands, and cultural resources. The RPO sensitive lands are discussed in this section, and potential impacts are discussed in Section 2.3.2.

County of San Diego Habitat Loss Permit (NCCP Conformance)

San Diego County Code Section 86.101 provides for the issuance of a Habitat Loss Permit (HLP) under certain circumstances. The NCCP and HLP Ordinance regulate losses of CSS prior to issuance of certain grading permits, improvement plans, and grading and clearing permits.

Because the project is located outside of the adopted portions of the County MSCP area and will affect CSS, an HLP will need to be obtained pursuant to the listing of the California gnatcatcher under the 4(d) ruling of FESA (Interim HLP) and pursuant to the provisions of the County Habitat Loss Ordinance (October 22, 1997). As part of this process, the County is required to make findings on the issuance of the HLP pursuant to Section 86.104 of the County of San Diego Code and Section 4.2.g of the Coastal Sage Scrub Natural Communities Conservation Plan Process Guidelines. Findings must be made demonstrating that the habitat loss will (1) not preclude connectivity between areas of high habitat values, (2) not preclude or prevent the preparation of the subregional NCCP, (3) be minimized and mitigated to the maximum extent practicable in accordance with Section 4.3 of the NCCP Process Guidelines, (4) not appreciably reduce the likelihood of survival and recovery of listed species in the wild, and (5) be incidental to otherwise lawful activities. Compliance with the NCCP is analyzed in Section 2.3.2.

County of San Diego General Plan Conservation and Open Space Element

The County's General Plan Conservation and Open Space discusses goals, policies, and objectives regarding biological resources. The San Diego region is recognized as one of the most biologically important areas in the United States, and one of the most biologically diverse areas in the world. The diversity of species found in the San Diego region can be attributed to the wide variety of vegetation and habitats associated with the region's range of micro- climates, topography, soils, and other natural features. Unincorporated lands comprise the largest geographical area in the County with natural features that include lagoons, foothills, mountain ranges, and deserts. Today, the San Diego region supports over 400 sensitive plants and animals, ranging in sensitivity from common to critically endangered. All of this diversity is part of the San Diego region's unique natural heritage and a legacy for future generations. Select applicable General Plan policies are listed below:

- **COS-1, Inter-Connected Preserve System.** A regionally managed, inter-connected preserve system that embodies the regional biological diversity of San Diego County.
- **COS-1.1, Coordinated Preserve System.** Identify and develop a coordinated

biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.

- **COS-1.2, Minimize Impacts.** Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.
- **COS-1.9, Invasive Species.** Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.
- **COS-2.2, Habitat Protection Through Site Design.** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.
- **COS-3.1, Wetland Protection.** Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.
- **COS-3.2, Minimize Impacts of Development.** Require development projects to:
  - Mitigate any unavoidable losses of wetlands, including its habitat functions and values; and
  - Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging or adding fill material, exposure to pollutants such as nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.

2.3.2 Analysis of Project Effects and Determination as to Significance

The Biological Resources Report provided the following definitions regarding project impacts.

- **Direct impacts** refer to 100 percent loss of a biological resource. For purposes of this report, it refers to the area where vegetation clearing, grubbing, and mass grading are proposed. Proposed fuel modification zones of the limits of grading are also considered permanent direct impacts but are calculated separately. Direct impacts were quantified by overlaying the limits of grading and brush management on GIS-located biological resources and counting both as permanent impacts. Off-site improvements (extension of water and sewer lines) are also considered permanent if they result in permanent removal of vegetation.
- **Indirect impacts** are reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside the direct construction disturbance zone. Indirect impacts may affect areas within the defined project area but outside the construction disturbance zone, including open space and areas outside the project area, such

as downstream effects. Indirect impacts include short-term effects immediately related to construction activities and long-term or chronic effects related to the human occupation of developed areas (i.e., development-related long-term effects). In most cases, indirect effects are not quantified, but in some cases quantification might be included, such as using a noise contour to quantify indirect impacts to nesting birds.

- **Cumulative impacts** refer to the combined environmental effects of the proposed project and other relevant projects. In some cases, the impact from a single project may not be significant, but when combined with other projects, the cumulative impact may be significant. Cumulative impacts are discussed in Section 2.3.2.6. Following the County Guidelines (County of San Diego 2010), there are several areas that will be considered "impact neutral." Impact neutral areas are land that is not being directly impacted, but cannot be counted toward mitigation; these areas include RPO wetlands, wetland buffers. Areas that are designated as impact neutral not included in the project open space acreage.

Methodology and Assumptions

In accordance with standard practices for surveys, the entire project site was surveyed by qualified biologists and all sensitive environmental resources were mapped for GIS analysis. The project's impacts were analyzed by determining what effects would result from construction and operation of the project improvements as shown on the project map (TM5508PL4). The County's Requirements (County of San Diego 2010) specify that surveys be done by County-approved biologists.

All staging and equipment lay-down areas would be located within the identified impact area. This includes staging for the sewer and waterline construction areas. However, the whole proposed easement to the RMWD is considered impacted for purposes of the analysis. For this reason, no additional impacts to habitat areas would result from construction staging. The pipelines would all be subsurface and after placement, the surface will be restored. The proposed sewer line is located almost entirely within the existing roadbed; a very small portion (<0.1 acre) extends into disturbed habitat and non-native grassland, but these impacts are negligible.

Trail alignments are shown in detail on the project map and on the Circulation Plan (see Figure 1-12 in Chapter 1, Project Description). Project trails range from eight to 15 feet in width; however, for purposes of biological impact assessment, a 20-foot corridor was considered impacted along all trail alignments. Impacts to habitat, sensitive species, and wildlife movement were assessed for trail construction and trail use according to each project impact section (guideline of significance), as appropriate.

After the site was surveyed and mapped, the project impacts as shown on the project map were analyzed by GIS. Vegetation impacts have been accounted for in Table 2.3-3, Impacts to Non-

Jurisdictional Vegetation Communities, and are combined as general project impacts. The mitigation measures for vegetation/habitat impacts require compensation on site in the project's open space, according to the type of habitat and in accordance with the County standard mitigation ratios, with some adjustments for replacement with habitats with similar function and similar or better value.

Mitigation for impacts to most upland vegetation/habitat types are generally determined by mitigation ratios (acre to be purchased or conserved, to acre impacted by the project) set in the County *Guidelines for Determining Significance* (2010). These standard vegetation/habitat mitigation ratios have factored in the importance of each type in the overall preservation of declining vegetation types and species. Mitigation ratios are standardized and not dependent upon the quality of the habitat. Rather, the mitigation ratios recognize the regional importance of the habitat, its overall rarity, and the number, variety and sensitivity of species it supports. Mitigation for wetlands is subject to other jurisdictions and is discussed separately below.

For Warner Ranch, most of the 109.4-acre vegetation/habitat mitigation requirement would occur on the project site in the 299.7 acres of the open space that is eligible for mitigation credit. However, there is a mitigation deficit for 3.5 acres of cactus scrub, 1.0 acres of oak woodland, and 6.7 acres of non-native grassland. A Final Revegetation Plan and financial bonding for success is required for the creation/restoration of 0.3 acre of riparian forest to ensure no net loss of wetlands and 3.5 acres of cactus scrub to ensure the RPO Sensitive Habitat Lands requirement of mitigation with equal or greater benefit to the affected species. The non-native grassland will be mitigated through the on-site preservation of 1.2 acres of valley needlegrass grassland and excess coastal sage scrub (including disturbed) (see mitigation in Section 2.3.5).

Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance (County of San Diego 2010) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The significance criteria include impacts to:

1. Special Status Species
2. Riparian Habitat and Sensitive Natural Communities
3. Jurisdictional Wetlands and Waterways
4. Wildlife Movement and Nursery Sites
5. Local Policies, Ordinances, and Adopted Plans
6. Cumulative Impacts to Biological Resources

2.3.2.1 Guideline 1: Special-Status Species

Guideline 1: The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by CDFW or USFWS, in any of the following ways:

1A The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

1B The project would impact an on-site population of a County List A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern. Impacts to these species are considered significant; however, impacts of less than 5 percent of the individual plants or of the sensitive species' habitat on a project site may be considered less than significant if a biologically based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of that plant or animal taxon.

1C The project would impact the local long-term survival of a County List C or D plant species or a County Group II animal species.

1D The project may impact arroyo toad aestivation, foraging or breeding habitat. Any alteration of suitable habitat within 1 kilometer (3,280 feet) in any direction of occupied breeding habitat or suitable stream segments (unless very steep slopes or other barriers constrain movement) could only be considered less than significant if a biologically based determination can be made that the project would not impact the aestivation or breeding behavior of arroyo toads.

1E The project would impact golden eagle habitat. Any alteration of habitat within 4,000 feet of an active golden eagle nest could only be considered less than significant if a biologically based determination can be made that the project would not have a substantially adverse effect on the long-term survival of the identified pair of golden eagles.

1F The project would result in the loss of functional foraging habitat for raptors. Impacts to raptor foraging habitat is considered significant; however, impacts of less than 5 percent of the raptor foraging habitat on a project site may be considered less than significant if a biologically based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of any raptor species.

1G The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species. Alteration of any portion of a core habitat could

only be considered less than significant if a biologically based determination can be made that the project would not have a substantially adverse effect on the core area and the species it supports.

1H The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown to adversely affect sensitive species.

1I The project would impact occupied burrowing owl (*Athene cunicularia*) habitat.

1J The project would impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

1K The project would impact occupied Hermes copper habitat.

1L The project would impact nesting success of the following sensitive bird species through grading, clearing, fire fuel modification, and/or other noise generating activities such as construction.

Species	Breeding Season
Coastal cactus wren	February 15 to August 15
Coastal California gnatcatcher	February 15 to August 31
Least Bell's vireo	March 15 to September 15
Southwestern willow flycatcher	May 1 to September 1
Tree-nesting raptors	January 15 to July 15
Ground-nesting raptors	February 1 to July 15
Golden eagle	January 1 to July 31
Light-footed clapper rail	February 15 to September 30

Analysis (Guidelines 1A-C: Effects on Federal, State, and County-Listed Species)

The proposed project is shown on Figures 2.3-4A through 2.3-4D, and project impacts are illustrated on Figures 2.3-4 through 2.3-6.

Federal- and/or State Listed Endangered or Threatened Species

There are no federally or state-listed plant species on site and none are expected to occur. Potential impacts to federal or state listed animals are as follow:

Arroyo Toad. Over 30 hours of surveys were conducted for the arroyo toad in the project area. These surveys were negative. Arroyo toad does not currently breed in Gomez Creek or Pala Creek, but there is suitable habitat on site for this species, and the property is in close proximity to a known population along the San Luis Rey River and on Pala Creek. Additionally, the western end of the off-site sewer line occurs in close proximity to the San Luis Rey River within potential aestivation areas (<0.1 acre of non-native grassland). Potential impacts (e.g., loss of individuals that may aestivate or forage on site during construction) would be **significant** (**Impact-BI-1**) and would require mitigation.

There are direct impacts to 91.8 acres of arroyo toad critical habitat and preservation of 40.0 acres of critical habitat within the on-site open space (Figure 2.3-6). The extent of the suitable breeding habitat on site for arroyo toad is within the on-site open space; suitable aestivation habitat is present adjacent to the breeding habitat. Impacts to critical habitat associated with the waterline and water tank were determined not to include suitable breeding or upland aestivation habitat for arroyo toad based on the focused toad surveys.

Southwestern Willow Flycatcher and Least Bell's Vireo. Over 80 hours of focused surveys were conducted for the southwestern willow flycatcher and least Bell's vireo. No southwestern willow flycatchers were observed in the project area, and one migrant least Bell's vireo was observed guideline. Neither of these species is considered currently present on site, but suitable habitat is present and would be preserved, with adequate buffers. These areas of suitable habitat may be occupied by the species in the future, including during construction, and potential indirect impacts of noise may occur and would be considered significant if they disrupted breeding behavior.

There are impacts to 0.1 acre of suitable southern coast live oak riparian forest habitat for the flycatcher and vireo from the proposed waterline. These impacts are considered **significant** (**Impact-BI-2**) and would require mitigation.

California Gnatcatcher. Over 80 hours of focused surveys were conducted for the California gnatcatcher. None were observed in the project area and no direct impacts would occur as a result of the proposed project. Thus, impacts do not meet County's significance guideline 2.2.2.1 (1a). On-site and off-site impacts to approximately 35.8 acres of suitable coastal sage scrub (including disturbed coastal sage scrub) and southern cactus scrub are considered significant and require mitigation per NCCP guidelines. Approximately 149.0 acres of suitable California gnatcatcher habitat will be preserved in on-site biological open space.

Impacts to coastal sage scrub will require the issuance of an HLP based on the completion of findings pursuant to Section 4(d) of FESA, unless the Draft NCMSCP is adopted and provides coverage for project impacts through the associated Section 10 permit. Based on the current status of

the NCMSCP and plans for project construction, it is expected that the HLP will be used to authorize impacts to coastal sage scrub. The HLP will require another protocol survey for California gnatcatcher within one year of issuance of the HLP; the HLP itself must be acted upon (i.e., vegetation cleared) within one year of issuance. The survey will be required for both on-site and off-site impacts to suitable habitat. The HLP will require approval from the USFWS and CDFW.

In order to receive the resource agencies approval, certain findings will need to be made. A summary of the Section 4(d) findings is provided below.

- The coastal sage scrub habitat in the project area is considered Intermediate Value habitat.
- The project does not have a substantial effect on habitat connectivity between focus areas
- The project area does not currently support California gnatcatchers, but provides suitable habitat.
- The habitat loss will not preclude or prevent the preparation of the subregional NCCP. In addition, approximately 149.0 acres of coastal sage scrub will be preserved in biological open space.

While there are no California gnatcatchers on site, there is suitable habitat on site for this species, and the property is in close proximity to known populations along the San Luis Rey River. Potential impacts (e.g., loss of individuals that may aestivate or forage on site during construction) would be **significant** (**Impact-BI-3**) and would require mitigation.

Quino Checkerspot Butterfly. Over 40 hours of focused surveys were conducted for the Quino checkerspot butterfly. No Quino checkerspot butterflies have been detected in the project area, and no direct impacts to individual species would occur. Impacts do not meet the County significance guideline 2.2.2.1(1a). In addition, because the closest known location is one CNDDB record approximately 6 miles north of the project area from 1997 and long distance movements by individuals are not common (up to 3.7 miles), the project area is unlikely to become occupied by this species. Therefore, there are **no impacts** to the species or impacts to suitable habitat for the species.

Stephens' Kangaroo Rat. Protocol surveys for Stephens' kangaroo rat were negative, and this species is not expected to occur in the vicinity of the project area. There are no documented captures of Stephens' kangaroo rat in the immediate Warner Ranch project vicinity, and there is extremely limited potential for any colonization to occur since the areas surrounding the grasslands on site are dominated by dense coastal sage scrub or chaparral, or are planted with citrus or avocado orchards. Based on trapping results and site evaluation, further trapping surveys for this species are not warranted unless conditions surrounding the property were drastically altered as through a major fire event, which could cause a potential colonization

increase. No direct impacts to individual species would occur as a result of the proposed project, and there are **no impacts** to the species or impacts to suitable habitat for the species.

County Plant List A and B, County Animal Group I, and State Species of Special Concern

County List A and B Plant Species. There are no direct impacts to rainbow manzanita or Parry's tetracoccus. No other County List A or B plant species have been observed in the project area.

County Animal Group I or State SSC Special-Status

Cactus Wren. There are two resident pairs of cactus wren in the project area. Southern cactus scrub supporting the northern pair on site will be completely impacted as a result of grading activities. Total impacts to southern cactus scrub are 2.7 acres, including the proposed fire buffer (Figures 2.3-4A through 2.3-4D). Impacts to the southern pair of cactus wren are approximately 10 percent (0.2 acre on the edges of a total 2.0-acre habitat patch) and development would be located on a north-facing slope, whereas preserved habitat will be on an opposite, south-facing slope. CDFW visited the site with the County and applicant and provided measures to minimize potential indirect impacts. It is expected that the southern pair of cactus wren will persist within the proposed on-site open space. Based on the County significance criteria 2.2.2.1 (B), impacts to a single pair of cactus wren and 2.7 acres associated occupied habitat for cactus wren would be **significant** (**Impact-BI-4**). Because occupied southern cactus scrub is Sensitive Habitat Land under RPO, mitigation if allowed must provide equal or greater benefit to the species if allowed. A project alternative to avoid this RPO impact is included in Chapter 4 of this EIR.

Golden Eagle. One golden eagle was observed flying over the project area in October 2010, but it does not nest on site or near the project area. The golden eagle nest survey was negative for nests within the project vicinity (Appendix E). There is no suitable habitat for golden eagle nesting in the project area. Impacts to golden eagle individuals and nest locations would be **less than significant**. Impacts to raptor foraging habitat is discussed in Section 2.3.2.1(F).

Special-Status Riparian Birds. Yellow warbler was observed in riparian scrub and forests in the project area. There are impacts to 0.1 acre of suitable southern coast live oak riparian forest habitat for yellow warbler from the proposed waterline. These impacts are considered **significant** (see **Impact-BI-2**) and would require mitigation.

Other Group I Birds. Southern California rufous-crowned sparrow is a County Group I species and state Species of Special Concern that was detected in the project area during wildlife surveys (Figure 2.3-1A). It could use a variety of habitats in the project area for foraging or breeding, including CSS (including disturbed), southern cactus scrub, southern mixed chaparral (including disturbed), extensive agriculture, non-native grassland, and valley needlegrass grassland. There are direct impacts to approximately 108.0 acres of suitable habitat for this

species, including the fire buffer and waterline. Direct impacts to suitable habitat for these species are considered **significant** (**Impact-BI-5**) and mitigated with the on-site preservation of 281.0 acres of suitable grassland and shrubland retained in open space.

Other Group I Birds. White-tailed kite, turkey vulture, and northern harrier are County Group I species and state Species of Special Concern that were observed foraging on the open areas of the site. Impacts to these species would include the loss of approximately 70.0 acres of open fields and grasslands that provide open foraging may exceed the significance threshold, with preservation of approximately 20.0 acres of open grassy habitat on site. There is no suitable nesting habitat for turkey vulture in the project area. Although northern harrier is known to nest in grassy areas, there are no records of nests from Warner Ranch. Direct impacts to foraging habitat for these open range raptors are **significant (Impact-BI-6)** and would require mitigation**.**

Other Group I Birds. Cooper's hawk, sharp-shinned hawk, and red-shouldered hawk are County Group I species and state Species of Special Concern that were observed in the project area during wildlife surveys. Cooper's hawk and red-shouldered hawk have the potential to nest and forage in woodland habitat in the project area, including southern cottonwood–willow riparian forest, southern coast live oak riparian forest (including disturbed), sycamore alluvial woodland, and coast live oak woodland. Sharp shinned hawk would forage but does not nest in this portion of the County. There are impacts to 0.1 acre of suitable habitat (southern coast live oak riparian forest) as a result of the waterline (see **Impact-BI-2**). The project development is located away from the riparian habitat, outside of appropriate wetland buffers, and it includes fuel management limited building zones as an additional protection. Therefore, the project would have **less-than- significant** impacts to these woodland foraging species.

Two-striped Garter Snake and Other Group I Reptiles. Two-striped garter snake, a County Group I species and a state Species of Special Concern, was observed in Gomez Creek, and is primarily found in riparian and pond habitats where its primary food sources are found. This species is most likely to stay within the riparian corridor and away from the agricultural and upland habitats proposed for the majority of the development. However, impacts to 0.1 acre of suitable habitat (southern coast live oak riparian forest) as a result of the waterline may result in direct impacts to this low-mobility species. This impact would be **significant** (**Impact-BI-7**) and would require mitigation. No additional Group I or state SSC special-status reptiles have been observed or have high potential to occur in the project area.

No additional Group I or state SSC special-status birds or reptiles and no Group I or state SSC special-status mammals, amphibians, fish or invertebrates have been observed or have high potential to occur in the project area.

County Plant List C and D Species, County Group II Animals

County List C and D Plant Species. Direct impacts to graceful tarplant will occur as a result of proposed grading activities. Approximately 99 percent of the population of graceful tarplant (approximately 23,424 individuals) is located within the proposed grading activities or fire buffer (Figures 2.3-4A through 2.3-4D). Engelmann oak and rush-like bristleweed will be directly impacted through grading activities or maintenance of the fire buffer.

Graceful tarplant is a CRPR 4.2 and a County Group D species which means it has limited distribution in California and is fairly uncommon. Based on its low rarity ranking by both CDFW and the County, impacts to the majority of the population of graceful tarplant in the project area is not expected to affect the overall conservation status of the species or impact the long-term survival of this plant. Impacts do not meet County significance thresholds.

County Group II Wildlife Species. Direct impacts to coastal western whiptail, northern red-diamond rattlesnake, Blainville's horned lizard, and orange-throated whiptail could occur as a result of project grading and thinning/clearing within the fire buffer. Small mammals are also low-mobility species and direct impacts could occur to northwestern San Diego pocket mouse and San Diego desert woodrat through grading activities (Figures 2.3-4A through 2.3-4D). The trapping study states that "the area of take is limited on a regional scale," and therefore, impacts "to these species from project implementation are not considered significant" (Envira 2010). However on a County level, the direct impacts of habitat conversion to residential uses to these low-mobility Group II sensitive reptiles and mammals would be **significant** (**Impact-BI-8**) and mitigated on site as habitat based mitigation at the County-required mitigation ratio within the proposed open space preservation area.

Mountain lion and mule deer are highly mobile species that could use a variety of habitats in the project area, but direct mortality of individuals during construction is not expected to occur. There are direct impacts to suitable habitat in the project area, including impacts within the fire buffer, but these County Group II species have a low sensitivity status, and suitable habitat is primarily located in woodland and shrubland habitat outside of the development boundary. Based on the preservation of habitat in on-site open space, the direct loss of suitable habitat would not impact the local long-term survival of these species and impacts would be **less than significant**.

San Diego black-tailed jackrabbit and ringtail have high potential to occur in the project area. There would be direct impacts to suitable habitat for San Diego black-tailed jackrabbit and a small amount of suitable ringtail habitat (0.1 acre of riparian woodland) will be directly impacted. Based on the preservation of habitat in on-site open space, the direct loss of suitable habitat for San Diego black-tailed jackrabbit and ringtail would not impact the local long-term survival of this species and impacts would be **less than significant**.

No additional Group II special-status mammals have been observed or have high potential to occur in the project area.

Monarch butterfly, a County Group II invertebrate, was detected in the project area, but there is no suitable wintering habitat in the project area and impacts would be **less than significant**. No other special-status invertebrates are expected to occur in the project area.

Analysis (Guideline 1D: Arroyo Toad)

This significance guideline requires analysis of impacts to suitable breeding, foraging, and aestivation habitat within 1 kilometer of occupied breeding habitat. Although the focused survey results were negative, there are records of arroyo toad in the San Luis Rey River and Pala Creek. The project does not propose any direct impacts to areas identified as potential breeding habitat (i.e., mulefat scrub within Gomez Creek and non-vegetated channel within Pala Creek) within 1 kilometer of the known records in the San Luis Rey River and Pala Creek.

As noted above, potential aestivation habitat is identified within extensive agriculture and upland areas adjacent to potential breeding habitat in Gomez Creek, as well as the western terminus of the off-site sewer line which supports potential aestivation habitat adjacent to the San Luis Rey River (<0.1 acre). Within the 1-kilometer radius, there are a number of barriers constraining movement to the project site (an active ranch to the west, SR 76, active pastures, Pala Casino and associated parking lots to the south, and development and residences to the east. This makes occupation by arroyo toad unlikely, but it is a potential species. Within the project site, there are approximately 18.4 acres identified as suitable upland habitat adjacent to Gomez Creek and Pala Creek that will be directly impacted through grading, the waterline, or the fire buffer. Based on the guideline of significance, this is a **significant** impact (see **Impact-BI-1**).

Analysis (Guideline 1E: Golden Eagle Habitat)

Golden eagles have potential to forage over Warner Ranch. County and CNDDB records indicated that two nest sites were located less than 4,000 feet from the project area. A nest survey was conducted in 2012 at and around these two locations and no nests or suitable nesting habitat was detected. Therefore, the project would not exceed the County's guideline of significance criterion 2.2.2.1 (e) for direct impacts to golden eagle nesting or for reduction in breeding capacity of the known pairs in the vicinity of the project.

A known eagle nest is at Gregory Canyon, in proximity to the project area was also reviewed but it is in the range of 5 to 10 miles away. The Draft Eagle Conservation Plan (USFWS 2011) states that project proponents should identify the location of eagle use areas within a 10-mile radius of the project footprint. *The Gregory Mountain Golden Eagle Territory in San Diego County, California: A Compilation of Historical Data* report (WRI 2012) describes golden eagle

territories as generally 20 to 25 square miles (12,800.0 to 16,000.0 acres). The 10-mile radius buffer around the project area would be part of the Gregory Canyon golden eagle's estimated 20 to 25 square mile territory.

The project is estimated to impact approximately 103.1 acres of suitable raptor foraging habitat, which is less than 1 percent of the estimated territory. There are impacts to 13.6 acres of high value foraging habitat, but only one golden eagle was observed during any of the surveys conducted. In consultation with the USFWS, and based on the results of the biological surveys (one golden eagle notation), it was determined that there would be no take of eagles based on loss of this foraging habitat. The Conceptual RMP prepared for the project incorporates recommendations of the USFWS for long-term monitoring of golden eagle use of the site. Potential impacts to golden eagle would be **significant** (see **Impact-BI-6**) and would require mitigation.

Analysis (Guideline 1F: Raptor Habitat)

Suitable foraging habitat in the project area for northern harrier, Cooper's hawk, red-shouldered hawk, white-tailed kite, turkey vulture, and sharp-shinned hawk includes extensive agriculture, non-native grassland, valley needlegrass grassland, coastal sage scrub (including disturbed), disturbed southern mixed chaparral, and mulefat scrub (for northern harrier). There are direct impacts to approximately 103.1 acres of suitable foraging habitat, with 166.5 acres of suitable foraging habitat that would be retained in biological open space. Based on the County significance guideline, direct impacts to more than 5 percent of functional raptor foraging habitat are considered **significant** (see **Impact-BI-6**) and would require mitigation.

Trail Impacts. The project's proposed trail system was considered to determine if foraging habitat would be affected. They would be multiuse, but not open to motorized vehicles of any kind. Suitable roosting and nesting habitat for raptors occurs in woodland areas adjacent to Gomez Creek, Pala Creek, and in an isolated area of sycamore alluvial woodland. The proposed fire buffer is located within 100 feet of some of the isolated woodland areas, and long-term indirect impacts could occur (see Figures 2.3-4A through 2.3-4D). The primary indirect effect would be increased human presence in proximity to potential nesting areas. The project's private trails are located outside of the wetland buffers within fuel management limited building zones adjacent to the development, and through a portion of the avocado grove. Access to the open space areas will be limited. The waterline access road to the northwest portion of the site will have a gate and it will not be part of the trail system. The old road to Pala Temecula Road (northeastern portion) will also have a locked gate and is not part of the trail system. The project's trails as designed would be unlikely to deter foraging activities by golden eagles, or nesting or foraging by other raptors, and impacts would be **less than significant**.

Analysis (Guideline 1G: Core Wildlife Areas)

Core wildlife areas near Warner Ranch include Mount Olympus to the north and San Luis Rey River to the south (Figure 2.3-2A). As discussed above, species richness in the project area is relatively high due to the property size, undeveloped land to the west and north, and presence of native upland and wetland habitats. The western side of the property likely has higher species richness than the eastern side due to the presence of upland, woodland, and wetland habitats and ecotones associated with Gomez Creek canyon. Species observed utilizing the project area include a variety of birds, reptiles, amphibians, mammals, and invertebrates commonly found in San Diego County and the habitats occurring on site.

Based on the results of multiyear and multispecies focused surveys, there is not a unique assemblage of wildlife species in the project area. In addition, the site was not found to support listed threatened and endangered species and thus it does not represent the same value of wildlife habitat as core areas to the south within the San Luis Rey River or more threatened coastal upland areas that support species such as California gnatcatcher. Furthermore, the assemblage of wildlife species that utilize the site is similar to what would be expected of other sites in the region (e.g., Rice Canyon, Trujillo Creek, and an unnamed tributary east of Magee Road). Raptor species were observed foraging on site, and the number of individuals and number of species are high, but not unexpectedly high for this region. Based on field study and observations and regional information, the project area is not known to be critical to the long-term viability of any species in this region.

Gomez Creek is considered a local movement corridor and a sensitive habitat lands (SHL) defined under RPO (Figure 2.3-2B). There are no direct impacts to Gomez Creek or Pala Creek, and where development is proposed adjacent to Gomez Creek, a 100-foot wetland buffer has been established. A portion of a proposed trail (<0.1 acre) is located in an existing paved road overlaps with the RPO wetland buffer along Gomez Creek. There is a small portion of the fire buffer (0.6 acre), a portion of the proposed waterline (0.9 acre), and a small impact from grading (<0.1 acre) that overlap the wetland buffer on the east side of Gomez Creek, but these encroachments will be offset by buffer enhancements.

The project reduces the overall native habitat (including non-native grassland) by approximately 16 percent, but preserves approximately 84 percent (304.0 acres) of native habitat (including non-native grassland) in biological open space. The majority of disturbance 62 percent) would be within developed or disturbed areas (the horse ranch and orchards). By clustering development mostly within already developed areas and preserving wetlands and wetland buffers (including no crossings of Gomez Creek), the on-site open space preserves multiple habitats and habitat linkages through the project area that will be preserved in perpetuity in a conservation easement. As discussed above, the project area does not represent a core wildlife area, but the preserved open

space would provide cover and habitat for a variety of species. Avoidance of impacts to Gomez and Pala Creeks and establishment of a buffer between Gomez Creek and the proposed development will ensure that these local movement corridors continue to be used by wildlife similar to current functions and conditions. Impacts to core wildlife areas are **less than significant**.

Analysis (Guideline 1H: Indirect Impacts)

Indirect effects of project occupation to sensitive plants or animals are those effects that could occur after project development with the introduction of development in an area that once was undeveloped. These types of impacts could include changes to wildlife dispersal, foraging, denning, burrowing, and nesting that could result from increased night lighting, noise, stormwater runoff, interface with domestic animals, trail use, and other impacts. Indirect impacts to vegetation generally include human-associated uses such as compacting soil within the drip-line of trees, overwatering mature trees, fugitive dust loads next to trails, and the potential for vegetation trampling next to trails. These potential indirect operational impacts to sensitive vegetation communities and animal species occur over the life of the project and may be considered significant.

Potential sources for indirect impacts during project construction to the vegetation communities and sensitive plant or animal species known to occur adjacent to the project construction area could include trampling of vegetation outside of the limits of grading by workers and vehicles during construction; erosion, runoff, dust, and siltation into off-site areas; impacts related to storage and access areas; and to migrating arroyo toads if present. Indirect effects could result from construction noise to sensitive avian species during their breeding seasons, including coastal California gnatcatcher, raptors, and other species listed under the MBTA. These potential indirect construction impacts to sensitive vegetation communities and animal species would be short term but would be considered **significant**, as explained below.

Special-status Plants and Vegetation (Construction). Indirect impacts to special-status plants and vegetation could result primarily from adverse edge effects. During construction activities, edge effects may include dust, which could disrupt plant vitality in the short term, or construction-related soil erosion and water runoff. Standard BMPs and measures to control dust, erosion, and runoff would minimize these effects, but indirect impacts would still likely occur. Short-term indirect impacts to special-status plant species could occur within 500 feet of the construction resulting from project implementation would be considered **significant** (**Impact-BI-9**) and would require mitigation.

Special-Status Plants and Vegetation (Long-Term). Potential long-term indirect impacts to sensitive plant species and vegetation could include trampling by humans traveling off-trail, invasion by exotic plants and animals, exposure to urban pollutants (fertilizers, pesticides,

herbicides, and other hazardous materials), disturbance of natural fire regime, soil erosion, hydrological changes (e.g., measured moisture due to urban runoff and agriculture, surface and groundwater level, and quality), and other changes (e.g., increased sun and wind exposure) along habitat edges. Although the project is designed to minimize perimeter distance of the preserve edge, trails extending into project open space, drainage directed towards open space, and lighting directed toward open space, long-term indirect impacts would still likely occur. These long-term indirect impacts to special-status plant would be considered **significant** (**Impact-BI-10**) and would require mitigation.

Special-Status Wildlife (Construction). Construction-related noise, dust, runoff, erosion, and other edge effects are also potential sources of indirect impacts on special-status wildlife species. Motion detector security lighting may be used around construction storage and staging areas, but there will be no night construction associated with the project. The same BMPs and impact minimization measures noted above would reduce impacts to wildlife, but indirect impacts could still occur. These impacts would be **significant** because these biological resources are considered special-status by federal, state, and local agencies (**Impact-BI-11**) and would require mitigation.

Special-Status Wildlife (Long-Term). Special-status wildlife observed or potentially occurring that could be affected on a long-term basis by the proposed development would be species primarily associated with chaparral, coastal sage scrub, southern cactus scrub, oak woodlands, grasslands, or wetland and riparian areas. There is suitable habitat for several federally and state-listed species on site, including arroyo toad, southwestern willow flycatcher, least Bell's vireo, California gnatcatcher, and Stephens' kangaroo rat. Although none of these species have been documented breeding on site, there is potential for arroyo toad, southwestern willow flycatcher, least Bell's vireo, and California gnatcatcher to occur on site in the future, and they could be indirectly affected by the project.

Potential indirect impacts to special-status wildlife species include direct trampling of wildlife or their necessary habitat by humans and pets traveling off-trail. Adverse effects could also result from domestic pets (cats and dogs) impacting prey (birds, ground squirrels, rabbits, other rodents). Invasion by exotic plants and animals, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, fire, hydrological changes (increased moisture from urban runoff and irrigation, surface and groundwater level and quality), solar and wind effects along edges, collection, deliberate killing (e.g., northern red-diamond rattlesnake), disruption of wildlife movement patterns, collisions with vehicles from increased traffic on SR 76, and loss of foraging habitat are also potentially adverse effects. Two-striped garter snake and other riparian species may be attracted to irrigated landscaping associated with the residential uses adjacent to Gomez Creek. As noted above, the project is designed to minimize edge effects, but long-term indirect impacts would still likely occur. Without compliance with the existing plans, programs, and policies, potential long-term

indirect impacts to all potentially occurring special-status species would be significant because they are considered sensitive by federal, state, and local agencies (**Impact-BI-12**) and would require mitigation.

Cactus wren within project open space will be subject to potential long-term indirect impacts. These impacts include potential disruption of cactus wren breeding due to presence of crows nesting in street trees adjacent to cactus wren habitat; relatively small native habitat corridors between the southeastern preserved cactus scrub habitat and other areas of potential habitat to the north and west; and human disturbance and trespass in the southeastern corner of the property. This would be a potentially **significant** indirect impact to cactus wren (see **Impact-BI-12**) and would require mitigation.

Long-term indirect impacts to nesting native birds protected under the MBTA would be considered significant, because they are protected under the MBTA. It is expected that there would be potential long-term indirect impacts to roosting and nesting habitat for raptors (**Impact-BI-13 and Impact-BI-14**) and would require mitigation. Indirect impacts to foraging habitat will be **less than significant**, because the trails do not lead away from the residential development. The project's public trail occurs along the frontage of SR76.

The off-site portion of the sewer line could result in short-term, indirect impacts associated with noise and increased human presence if construction occurs during the nesting season. Potential indirect impacts could occur to least Bell's vireo and southwestern willow flycatcher. These impacts are considered **significant** (**Impact-BI-15**) and would require mitigation.

Overall, indirect and edge effects have been minimized and the project's open space preserve has been maximized through application of NCCP preserve design principles such as maximizing the area to perimeter ratio for the preserve (covering 70 percent of the site and forming a large block of open space), providing for wildlife movement, and incorporating adequate fuel management in the project footprint.

Analysis (Guideline 1I: Burrowing Owl)

No burrowing owls have been detected in the project area; Suitable habitat is present but there is low potential for it to occur and there are no records or it occurring in the area. Therefore, the conclusion is that there are **no impacts** to burrowing owl.

Analysis (Guideline 1J: Cactus Wren)

Impacts to an on-site population of cactus wren including two pairs and 2.7 acres of occupied habitat would be **significant (**see **Impact-BI-4)** and would require mitigation**.**

Analysis (Guideline1 K: Hermes Copper)

Based on the habitat assessment conducted in 2011, there is no suitable habitat for Hermes copper butterfly within 150 meters (500 feet) of the proposed development. No flight surveys were required. There are **no direct (or indirect) impacts** to potential suitable habitat for this species.

Analysis (Guideline 1L: Nesting Success)

This guideline discusses impacts to the nesting success of cactus wren, California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, tree-nesting raptors, grounding-nesting raptors, golden eagle, and light-footed clapper rail. The direct impacts to these species or their habitat are discussed in Section 2.3.2. Short-term, construction-related noise impacts are discussed above, and are considered significant for all special-status species that have potential to occur in the project area, including tree- and ground-nesting raptors. Construction noise is a potential indirect impact to these species if they occur within or adjacent to the project area (see **Impact-BI-11** and **Impact-BI-13**) and would require mitigation. Long-term indirect impacts to roosting and nesting habitat for raptors are considered **significant** (see **Impact-BI-14**) and would require mitigation.

Cactus wren are known to occupy the cactus sage scrub on the site and the potential for indirect impacts from construction or long-term use near occupied habitat would be considered **significant** for the reasons given under Guideline 1H (see **Impact-BI-11** and **Impact-BI-12**) and would require mitigation.

California gnatcatcher is known to occur one mile east of the project boundary. The focused surveys for California gnatcatcher were negative and the closest record for this species is 1 mile east of the project boundary; **less than significant direct impacts** from noise are anticipated due to its distance from the limits of grading.

Least Bell's vireo and southwestern willow flycatcher are known to occur 1,000 feet south of the project boundary in riparian woodland. Construction-related noise will not impact species within the San Luis Rey River because it is located more than 1,000 feet from the project area and is separated by SR 76; however, the proposed off-site sewer line could result in indirect impacts (see **Impact-BI-15**) and would require mitigation.

Light-footed clapper rail does not occur in the vicinity and the closest occurrence is near the coast approximately 16 miles southwest of the project area. **No indirect impacts** to rail would occur.

2.3.2.2 Guideline 2: Impacts to Riparian Habitat or Sensitive Natural Communities

Guideline 2: Impacts would be significant if the project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS. Impacts would be significant if any of the following would occur:

2A Project-related construction, grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.

2B Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

2C The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.

2D The project would cause indirect impacts that would adversely affect sensitive habitats.

2E The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Analysis (Guideline 2A: Sensitive Habitats)

Direct impacts to vegetation communities would occur during grading activities as well as during vegetation removal within the proposed fire buffers. Table 2.3-3 and Table 2.3-4 (Off-Site Impacts) show the acreage of direct impacts to upland vegetation communities on site as a result of the limits of on-site grading, the proposed water line, off-site improvements, and the portion of the proposed fire buffer that extends beyond the limits of grading (Figures 2.3-4A through 2.3-4D and 2.3-5).

Based on the *Fire Protection Plan* (FIREWISE 2000 2011), the San Diego County Code stipulates that the fuel management zones (fire buffer areas) are a minimum 100-foot buffer surrounding all structures where flammable vegetation or other combustible growth is cleared away or modified. The fire buffers are separated into three zones. Zones 1 and 2 extend from the edge of development out 50 feet, and zone 3 extends an additional 50 feet from the edge of zone 2. Vegetation in zone 3 "may be cleared, irrigated and replanted with firewise landscaping

(manufactured slopes), non-irrigated natural slope thinning zones where native vegetation is thinned to 50 percent of its original fuel loading, and/or mowed (weed-whipped) grasses. This zone may include single or small clusters of trimmed fire resistant native and ornamental shrubs up to 48 inches in height and trimmed native or ornamental trees limbed up to 6 feet from the ground." Mulching and irrigation may be used depending on the plant species selected, and maintenance will be required throughout the year as needed.

Direct impacts will occur to the following special-status upland communities: Diegan coastal sage scrub (33.1 acres, including disturbed), southern cactus scrub (2.7 acres), southern mixed chaparral (2.3 acres), non-native grassland (20.3 acres), and extensive agricultural land (50.0 acres). Impacts to these communities would be considered **significant** (**Impacts BI-16a** through **16e).**

The off-site portions of the project include a waterline that extends north of the project area along Jeremy Way, road improvements at the intersection of Cole Grade Road and SR 76, and the installation of a sewer line along SR 76. The vegetation communities mapped for the waterline and intersection improvements are shown on Figure 2.3-1B. The off-site portion of the waterline is approximately 1.6 acres and includes disturbed habitat (0.9 acre), agriculture (0.6 acre), and Diegan coastal sage scrub (0.1 acre). The off-site waterline construction area is within existing Jeremey Way (3,000 feet long by 30 feet wide) and will be constructed with a typical traffic control plan to allow access by residents while keeping construction within the limits of work used of this impacts analysis. The intersection improvements project area is 2.6 acres and includes 0.9 acre of orchard and 1.7 acres of developed land. The proposed off-site sewer line[1] is located within approximately 5.4 acres of the roadway of SR 76 except for the western terminus which crosses into a small portion of disturbed habitat and non-native grassland (Figure 2.3-1B).

A 50 foot-wide oak root protection zone is required around the oak woodlands in the project area. Approximately 32.6 acres of this zone are located within open space; 0.5 acre is located within the proposed waterline. Impacts within mapped oak woodland or oak root protection zones must be mitigated at a 3:1 ratio with oak woodland habitat. Based on this guideline, this impact would require 1.5 acres of oak woodland mitigation (0.4 acre of this mitigation requirement will be fulfilled as part of the southern coast live oak riparian forest mitigation requirement). There is 0.1 acre of coast live oak woodland that will be preserved in biological open space; the remaining 1.3 acres will be mitigated through a combination of habitat creation and restoration.

Table 2.3-3 provides a summary of the direct impacts associated with the project, the acreage of the vegetation communities to be preserved in on-site open space, and any deficit/surplus of

[1] The sewer line is approximately 23,676 linear feet and is estimated to be 10 feet wide.

mitigation land. The project provides adequate mitigation for most project impacts. Vegetation communities with a deficit of mitigation following dedication of on-site open space are discussed further below.

Open space areas that are considered viable for mitigation include habitat that is connected to other large natural land areas (e.g., open space area in the western and northern portions of the project area) and polygons that are large enough to provide habitat for a variety of plant and wildlife species (e.g., open space in the eastern portion of the project area).

The proposed private trail would largely be on an existing road in the northeastern portion of the project site. Use of this existing road as a trail is not expected to diminish the function or value of habitat within open space in the northeastern portion of the site. Currently, the northwestern portion of the project site has trails on dirt roads to access the orchards. This road would also provide access to the waterline and water storage tank proposed on a ridgeline in the eastern portion of this area. These project features would not have heavy traffic or other uses that would substantially diminish the function and value of habitat within open space in the northwestern portion of the project site. The southwestern portion of the open space consists mainly of Gomez Creek which is avoided with a 100-foot wetland buffer. The southeastern portion of the project site is narrow but adjacent to undevelopable tribal land. This area was specifically avoided to minimize impacts to cactus wren and is considered a viable open space area.

Some vegetation communities that have excess mitigation acreage are counted as mitigation acreage for impacts to vegetation communities or land covers when they provide similar functions. For example, excess coastal sage scrub acreage is applied as mitigation toward impacts to non-native grassland and extensive agriculture because it can provide similar habitat functions for wildlife species such as raptor foraging and small mammals. Much of the coastal sage scrub on Warner Ranch has relatively low shrub cover (approximately 30–60 percent). This openness provides resources for species that typically utilize non-native grassland. Common raptor species on site, such as red-tailed hawk, are known to utilize a variety of open habitats, including sagebrush and other shrub habitats.

On-site biological open space is deficit in providing mitigation for impacts to southern cactus scrub. Mitigation will be provided through off-site land conservation or on-site restoration. Potential on-site restoration areas are identified in Appendix O of the Biological Technical Report, which is included as Appendix E to the EIR. Impacts from restoration would be to intensive agricultural land or disturbed land and would be **less than significant**.

Analysis (Guideline 2B: Jurisdictional Wetlands/Waters)

Direct Impacts. Direct impacts to jurisdictional wetlands/water would occur due to grading and brush management activities in a manner similar to impacts to upland vegetation communities. The project would impact 0.10 acre of Southern coast live oak riparian forest and 0.03 acre of unvegetated jurisdictional drainage. Direct impacts to wetlands and waters are described in Table 2.3-5 (Impacts to Waters and Wetlands of the U.S./State/County) (**Impacts BI-17a and BI-17b).** There are no impacts to federally regulated wetlands.

Areas downstream of the project development may be subject to erosion, sedimentation, and pollutants during the period of construction. Potential temporary indirect impacts to jurisdictional wetlands and waters on site would be **significant** (**Impact-BI-18**) and would require mitigation.

Downstream areas primarily include the San Luis Rey River, which Gomez Creek flows into through a large culvert under SR 76. Although standard construction BMPs, open space designation, preservation of natural hydrologic patterns, and avoidance and minimization of jurisdictional waters have been incorporated into the proposed project, long-term indirect impacts would likely occur. Long-term indirect impacts that could affect jurisdictional wetlands and waters include trampling by humans traveling off-trail, invasion by exotic plants and animals, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), disturbance of natural fire regime, soil erosion, hydrological changes (e.g., measured moisture due to urban runoff and agriculture, surface and groundwater level, and quality), and other changes (e.g., increased sun and wind exposure) along habitat edges. Potential long-term indirect impacts to jurisdictional wetlands and waters would be considered a **significant** impact (**Impact-BI-19** and would require mitigation).

Analysis (Guideline 2C: Groundwater Dependent Habitat)

Groundwater impacts were not addressed in the Biological Resources Report, because groundwater usage proposed as part of the project will be equal to or less than existing usage and therefore no impact to groundwater dependent habitat as a result of project implementation.

Analysis (Guideline 2D: Indirect Impacts to Sensitive Habitat)

Indirect Impacts. Indirect impacts to special-status upland vegetation communities and special-status plants could result primarily from adverse edge effects, as described above. During construction activities, edge effects may include dust, which could disrupt plant vitality in the short term, or construction-related soil erosion and water runoff. Standard construction best management practices (BMPs) and construction-related minimization measures to control dust, erosion, and runoff would minimize these effects; however, indirect impacts would likely occur. The short-term indirect impacts to special-status vegetation communities and special-status plant

species resulting from project implementation would be considered **significant** due to the likelihood for disturbance of these resources (**Impact-BI-20)** and would require mitigation**.**

Potential long-term indirect impacts to special status vegetation could include trampling by humans traveling off-trail, invasion by exotic plants and animals, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), disturbance of natural fire regime, soil erosion, hydrological changes (e.g., measured moisture due to urban runoff and agriculture, surface and groundwater level, and quality), and other changes (e.g., increased sun and wind exposure) along habitat edges. Although the project is designed to minimize preserve edges, long-term indirect impacts would likely occur. These long-term indirect impacts to special-status vegetation communities resulting from project implementation would be considered **significant (Impact-BI-21)** and would require mitigation.

Analysis (Guideline 2E: Wetland Buffers)

As described in Section 2.3.2, the County requires all RPO wetlands to have a buffer in order to protect its functions and values. The buffer requirements depend on the overall quality of the wetlands, and are between 50 and 200 feet. The functions and values of Gomez and Pala Creeks and the isolated wetlands are described in Section 1.4.2 and are categorized by flood storage and flood flow modification, nutrient retention and transformation, groundwater recharge, sediment trapping, toxicant trapping, wildlife habitat, aquatic habitat, and public use. Based on this information, a minimum 50- to 100-foot wetland buffer distance is proposed for RPO wetlands along Gomez Creek; and a 50-foot buffer is maintained for RPO wetlands along Pala Creek and other isolated wetlands in the project area. More detail regarding these buffers is provided below.

Gomez Creek

The sycamore alluvial woodland is a riparian community that occurs on an elevated terrace above the creek. The woodland varies in width from 10 to 200 feet and provides an additional buffer between the proposed development and ACOE-jurisdictional wetlands (i.e., active streambed of Gomez Creek). The majority of the project provides buffers between 100 and 200 feet from the outer edge of the RPO wetlands (i.e., sycamore alluvial woodland) to the proposed fire buffers. The project incorporates a 100-foot RPO wetland buffer adjacent to Gomez Creek with the following exceptions. There are three areas where development will encroach within the 100-foot RPO wetland buffer. These RPO wetlands along Gomez Creek have at least a 50-foot buffer between the proposed fire buffer and outer edge of sycamore alluvial woodland. Figures 2.3-7A through 2.3-7E shows the biological open space and 50- to 100-foot buffer distances from the RPO wetlands. In particular, the topography, geomorphology, hydrology, and vegetation is expected to be unaffected by the project. There are no storm drains directed toward the channel. Only a portion of the development adjacent to Gomez Creek has proposed residences (the southwestern border of

the project is proposed to have a roadway). The residential development that will be located adjacent to Gomez Creek, will be elevated above the terrace adjacent to the channel providing a grade separation of 7 to 10 vertical feet, with a 2:1 slope, that will reduce exposure of habitats within the creek to edge effects. The proposed entrance road into the development is approximately 100 to 350 feet from Gomez Creek; noise levels and human disturbance from individual homes located at least 150 feet from the riparian habitat associated with the creek is not expected to substantially affect wildlife functions of the wetlands.

The project includes impacts in the required wetland buffer for a water line and existing access road/trail. However, these impacts are allowed in the RPO exceptions. There are impacts from grading (<0.1 acre), from fuel management (0.6 acre), and for construction and maintenance of the waterline (0.9 acre) within the to this RPO wetland buffer. The grading impact from the proposed waterline is located primarily within an existing ranch road, and potential impacts to vegetation would be limited to vegetation directly adjacent the road. This road will be retained following implementation of the project to allow access to orchards and the proposed waterline and may require periodic maintenance, which would necessarily occur within the 100-foot wetland buffer adjacent to Gomez Creek. The fire buffer activities within this area would not degrade the quality of the wetland buffer because the activities do not come closer than the minimum 50-foot wetland buffer that will be placed in an open space easement, and the habitat functions within the fire buffer (outside the wetland buffer) would have additional restrictions to include activities, structures, and non-native landscaping, beyond the addition of a non-motorized trail. Additionally, the RPO allows for no net-loss impacts; therefore these impacts are considered **less than significant** per the County significance criteria 4.2(e), as long as there is mitigation to the no-net-loss standard for the wetland and buffer. Please refer to previous analysis for Guideline 2B: Jurisdictional Wetlands/Waters and condition of approval **COA BIO No. 4**. The project includes a trail that follows along the existing paved road (utility access) on site that goes through the orchards. This road curves in several areas, overlapping with the 100-foot wetland buffer associated with Gomez Creek in one area. The trail near the north-central isolated wetlands follows along an existing dirt path and overlaps slightly with the 50-foot wetland buffer, but additional trail construction would not be needed at this location and there would be minimal impacts. See the information provided below relevant to making RPO findings to allow the trail location.

According to the County RPO (County of San Diego 2007), trail crossings are permitted across wetlands (or wetland buffers) when the following conditions are met:

1. There is no feasible alternative that avoids the wetland;

   Shapouri & Associates analyzed placing the waterline in other access roads within the orchard; however, due to the proposed grading and steep cut slopes, a revised alignment

is not recommended because of the steep topography and the increased potential for erosion (Shapouri 2013—Appendix N of the Biological Resources Report (Appendix E to the EIR)). Shapouri and Associates also analyzed shifting the proposed development easterly to avoid the small encroachment of the fuel management into the outer wetland buffer (between 50 and 100 feet from the wetland); however, revising the development to avoid this impact would result in a significant loss of homes (approximately 24 homes) and realignment of roads (Shapouri 2013—Appendix N of the Biological Resources Report (Appendix E to the EIR)). The portion of the trail that overlaps with the RPO wetland buffer for Gomez Creek is located within an existing paved road. The trail was sited at this location because it follows an existing road and no additional impacts to vegetation are required. Alternatives to this trail location would be more impactive to existing vegetation. As explained in the preceding text, trail encroachments have been limited to those that are in place. The encroachments for waterline grading, fuel management, and the trail occupy the minimum area feasible to meet infrastructure requirements.

2. The crossings are located and designed in such a way as to cause the least impact to environmental resources, minimize impacts to sensitive species and prevent barriers to wildlife movement (e.g., crossing widths shall be the minimum feasible and wetlands shall be bridged where feasible);

   The waterline grading and trail encroachments are due to siting of these facilities within existing roads to minimize impact to native habitats. The fire buffer encroachment occurs in an area of extensive agriculture and does not result in additional impacts to sensitive environmental resources.

3. The least-damaging construction methods are utilized (e.g., staging areas shall be located outside of sensitive areas, work shall not be performed during the sensitive avian breeding season, noise attenuation measures shall be included and hours of operation shall be limited so as to comply with all applicable ordinances and to avoid impacts to sensitive resources);

   Construction of these facilities will be subject to mitigation measures that require the least-damaging construction methods including avoidance of the breeding season or use of noise attenuation measures and biological construction monitoring.

4. The applicant shall prepare an analysis of whether the crossing could feasibly serve adjoining properties and thereby result in minimizing the number of additional crossings required by adjacent development; and

   No crossings are proposed and there are no adjoining properties that would be affected or served by the proposed improvements.

5. There must be no net loss of wetlands and any impacts to wetlands shall be mitigated at a minimum ratio of 3:1 (this shall include a minimum 1:1 creation component, while restoration/enhancement of existing wetlands may be used to make up the remaining requirements for a total 3:1 ratio).

   Mitigation for the wetland impacts and for wetlands buffer encroachments is proposed in the form of revegetation and in the form of enhancement of the affected buffer through native habitat revegetation (see Appendix O of the Biological Technical Report, which is included as Appendix E to the EIR). The buffer enhancement will consist of native upland habitat revegetation in areas where the buffer is less than 100 feet wide in order to increase the suitability of the buffer for wildlife usage, increase screening between Gomez Creek and the development area, and discourage encroachments by humans through the planting of cactus and other "barrier" species.

For Gomez Creek and based on the above information, the trail alignment/crossing would be permitted under RPO as long as there is mitigation to the no-net-loss standard for the wetland and buffer, under County Significance Guideline 2E.

Pala Creek

Pala Creek has a low to moderate value as a RPO wetland based on its functions and values described above. A 50-foot RPO wetland buffer is shown on Figures 2.3-7A through 2.3-7E. The project designates open space throughout this area of the SPA. There are no impacts to RPO wetlands or wetland buffers associated with Pala Creek.

The isolated RPO wetlands located in the north-central portion of the project area are comprised primarily of sycamore alluvial woodland and mulefat scrub. The functions and values are similar to those of Pala Creek as described above. Based on the results of the jurisdictional delineation, these wetlands do not have a significant nexus through surface or groundwater to waters of the United States and are mapped as isolated wetlands under the jurisdiction of CDFW and County only. Although the potential functions and values of the isolated wetlands are similar to those of Pala Creek, the lack of regular surface flow and isolated nature of the area limit its overall functions and values as a wetland. In addition, there are no proposed drainage outfalls that will cause erosion and/or sedimentation in the wetland. Based on this information, a wetland buffer of 50 feet within the project site is proposed for this RPO wetland and is shown on Figures 2.3-7A through 2.3-7E. No alteration is proposed that would impact the wetland or its buffer. Per the significance guideline 2E, there would be no impact to the Pala Creek wetland buffer.

2.3.2.3 Guideline 3: Impacts to Jurisdictional Wetlands and Waterways

Guideline 3: The project would have a substantial adverse effect on federally protected wetlands identified by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Analysis (Guideline 3: Wetlands and Waterways)

There are **no impacts** to federally regulated wetlands. Direct impacts to 0.13 acre (861 linear feet) of waters under the jurisdiction of the County and/or CDFW are described above in Section 2.3.2.2(B).

2.3.2.4 Guideline 4: Impacts to Wildlife Movement and Nursery Sites

Guideline 4: Impacts would be considered significant if the project would interfere substantially with the movement of a 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.

4A The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

4B The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges will be required to provide connectivity. Wildlife underpasses shall have dimensions (length, width, height) suitable for passage by the affected species based on a site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant road-kill or interference with an existing wildlife corridor/linkage.

4C The project would create artificial wildlife corridors that do not follow natural movement patterns. For example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.

4D The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

4E The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover,

placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography and adjacent land uses. Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer and other large animals should reach rim-to-rim along drainages.

4F The project does not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkage. For example, development (such as homes or structures) sited along the rim of a corridor could present a visual barrier to wildlife movement. For stepping-stone/archipelago corridors, a project does not maintain visual continuity between habitat patches.

Analysis (Guideline 4A: Impacts to Wildlife Access or Movement)

Gomez Creek and Pala Creek serve as wildlife corridors and habitat linkages between the upstream habitats of these creeks and the San Luis Rey River. Gomez Creek connects to the San Luis Rey River through a culvert crossing under SR 76; and Pala–Temecula Creek connects to the San Luis Rey through a culvert under Pala Mission Road and SR 76.

There are no impacts to Gomez Creek that would alter wildlife access or movement. There are no impacts to Pala Creek. Existing habitat linkages and wildlife corridor functions will remain after project buildout. Wildlife is free to move through Gomez Creek and Pala Creek in its current condition and movement is not expected to be reduced by the project. Impacts would be **less than significant**.

Analysis (Guideline 4B: Impacts to Habitat Connectivity)

As discussed above, the core wildlife areas near Warner Ranch include Mount Olympus to the north and San Luis Rey River to the south. The project is designed to preserve large blocks of undeveloped, native habitat in on-site open space (84 percent of the site). Approximately 62 percent of the project footprint is within existing ranch areas that have not functioned as habitat blocks for decades. The areas being preserved in open space also include the Gomez and Pala Creeks riparian corridors, which will continue to function as local wildlife movement corridors. The large blocks of vegetation communities northwest and northeast of the proposed project are adjacent to undeveloped land. The proposed project would not interfere with blocks of habitat and significant impacts are not expected.

Potential indirect impacts from increased traffic on SR 76 could result in increased mortality for wildlife that cross SR 76 and/or decrease connectivity as species may be discouraged from crossing SR 76. Conversely, if average vehicle speeds are reduced due to increased traffic,

wildlife mortality may decrease as species can more easily cross the highway when vehicle speeds are lower. Traffic volume is projected to increase from 24,450 average daily trips to 29,265 average daily trips. Caltrans was contacted for information regarding roadkill data along this route of SR 76; however, they do not keep data for this area. While data regarding roadkill and wildlife connectivity in this area is not known, the 20 percent increase in traffic may result in either increased mortality rates or decreased wildlife connectivity. The north-south connection along Gomez Creek is an important wildlife movement corridor that has the potential to be adversely affected by this increase in traffic. The potential adverse impact to wildlife movement along Gomez Creek would be a **significant** impact due to the importance of wildlife movement between areas north and south of the project site (**Impact-BI-22**) and would require mitigation.

Analysis (Guideline 4C: Impacts from Creation of Artificial Corridors)

As described above, the proposed project will allow for movement through the Gomez and Pala Creeks, as wells as the through the vegetation communities northwest and northeast of the proposed project. There are multiple opportunities for wildlife movement in and around the project area. The proposed project would not create any artificial wildlife corridors and would **not be a significant impact**.

Analysis (Guideline 4D: Impacts from Increases in Noise and Nighttime Lighting)

Potential indirect impacts to Gomez Creek could occur east of the creek where the residential development is proposed. Back yards face the creek but are topographically separated.

Short-term, construction-related indirect impacts include increased human presence; the construction area will be fenced and monitored, but may have motion-censored lighting for additional security. Long-term indirect impacts from increased lighting and human presence from the residential areas could deter wildlife movement in this area, in particular large mammals. Birds, reptiles, and small mammal movement is not likely to be affected. Movement by large mammals through this area is already constrained due to the presence of SR 76 and existing agricultural operations. The project is expected to have a negligible effect on the limited amount of large mammal movement through this area, because while there will be increased human activity associated with the development there will also be an enhancement wetland buffer separating that activity from Gomez Creek. The net result is that movement of large mammals through this area is not expected to substantially change; and therefore impacts are **less than significant**.

Analysis (Guideline 4E: Effects on Corridor Width)

The Gomez Creek riparian corridor varies from an unrestricted width upstream to 200 feet wide as it narrows near SR 76 where it is adjacent to existing structures. The corridor is less than 400

feet wide for less than 500 linear feet, as measured from the proposed limits of development to the existing residence on the west side of Gomez Creek. One of the goals and criteria for linkages and corridors described in the Multiple Species Conservation Program County of San Diego Subarea Plan (County of San Diego 1997), states:

> If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide corridors are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages, especially if the topography is steep.

As proposed, the project would meet this standard because the corridor segment that is less than 400 feet wide is less than 500 feet long. The majority of the corridor is greater than 1,000 feet both north and south of the project footprint. Furthermore, Gomez Creek is a movement corridor that occurs within a region with multiple movement corridors. The preservation of biological open space along with a buffer along Gomez Creek, combined with the grade separation of the development (located approximately 7 to 10 vertical feet above the adjacent open space and approximately 22 to 25 feet above the creek bed), indicate that species usages of the corridor would not be significantly diminished by the proposed development.

Analysis (Guideline 4F: Maintenance of Visual Continuity)

As noted above, the residential development will be elevated above the terrace adjacent to the channel providing a grade separation that will reduce exposure of habitats within the creek to edge effects. Based on this information and the width of the Gomez Creek riparian corridor, the proposed project would not interfere with visual continuity along the Gomez Creek riparian corridor, and impacts would be **less than significant**.

2.3.2.5 Guideline 5: Local Policies, Ordinances, Adopted Plans

Guideline 5: Impacts would be significant if the project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP. Significant impacts would occur if:

5A For lands outside of the MSCP, the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning (NCCP) Process Guidelines.

5B The project would preclude or prevent the preparation of the subregional Natural Communities Conservation Planning (NCCP) Process. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

5C The project will impact any amount of wetlands or sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO).

5D The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the Natural Communities Conservation Planning (NCCP) Process Guidelines.

5E The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.

5F For lands within the Multiple Species Conservation Program (MSCP), the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO).

5G The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning (NCCP) Process Guidelines.

5H The project does not maintain existing movement corridors and/or habitat linkages as defined by the Biological Mitigation Ordinance (BMO).

5I The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

5J The project would reduce the likelihood of survival and recovery of listed species in the wild.

5K The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).

5L The project would result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

Analysis (Guideline 5A: Exceed Interim Take of CSS)

Since the Draft NCMSCP has not been adopted, impacts to coastal sage scrub are subject to the 4(d) rule, which provides interim approval for impacts to 5 percent of coastal sage scrub of the County's habitat loss threshold. There are impacts to 26.9 acres of coastal sage scrub and 6.1 acres of disturbed coastal sage scrub. This requirement is met because the County's approvals, including this project, have not exceeded the 5 percent threshold.

Analysis (Guideline 5B: Prevent Preparation of the NCCP Plan)

The proposed project is located outside of the adopted MSCP, but has been planned with consideration of the Draft NCMSCP which designates the project area as draft future PAMA. In areas outside of the adopted MSCP and within the planning area for the Coastal Sage Scrub NCCP.

The County's HLP Ordinance requires compliance with the NCCP. The County became a participant in the NCCP in 1993 with the stated intent to "provide for regional protection and perpetuation of natural wildlife diversity while allowing compatible land use and appropriate development and growth." The NCCP process guidelines were established as interim guidelines until formal subregional plans were approved. The Draft NCMSCP would be the subregional plan for this portion of the County when adopted. Under the Draft NCMSCP, most of the project area is within a proposed Pre-Approved Mitigation Area (PAMA) and, therefore, the project's preserve design and its on-site mitigation is important to development of the NCMSCP. The proposed project would preserve 70 percent of the future PAMA. Decision-makers must determine whether the project complies with the interim program by making findings relative to the overall goals and policies of the NCCP, including that the project would not preclude or prevent the preparation of the future NCMSCP.

The findings relate to maintaining connectivity between areas of high habitat values, minimizing and mitigating the habitat loss, and not reducing the likelihood of survival or recovery of listed species. The required findings can be made because the project proposes development on the most disturbed habitats, primarily those that have been farmed for decades, in the southern area that is adjacent to SR 76 and existing development. The project has avoided high value resource areas and provided preservation for approximately 84 percent of the native habitats on site. The project proposes open space for wildlife use, including areas adjacent to the Pala Core, Gomez Creek, and the site's mountain areas. The project would accomplish its mitigation primarily by preservation of the northern block of habitat that has the most connectivity with other undeveloped lands. The habitat loss would not appreciably reduce the likelihood of survival and recovery of listed species in the wild, and, in fact, biological surveys did not demonstrate direct impacts to listed species. The project also incorporates project measures such as preconstruction surveys, grading limitations and monitoring, an RMP, fencing as necessary, and signage to reduce edge effects. Overall, the project is consistent with the HLP Ordinance and the NCCP because it contributes to the regional preserve design, does not jeopardize the continued survival of endangered species, and appropriately mitigates for impacts. Habitat loss would be incidental to lawful activities.

Analysis (Guideline 5C: Impacts to RPO Wetlands or RPO Sensitive Habitat Lands)

In the project area, RPO resources include wetlands, wetland buffers, and sensitive habitat lands. Impacts to jurisdictional waters and wetlands are discussed above in Section 2.3.2.4(A). There are impacts to approximately 1.2 acres of RPO wetland buffers located within the fire buffer and waterline (1.2 acres) and less than 0.1 acre is within the limits of grading, based on 100-foot RPO buffers extending outward from the wetland.

Sensitive Habitat Lands include the wildlife movement function along Gomez Creek. The development includes a 100 foot limited building zone easement (fire protection zone) and there is topographic relief between the development zone and Gomez Creek that minimizes impacts of the 1.2-acre encroachment into the RPO wetland buffer in this area. In addition, portions of the extensive agriculture within the RPO wetland buffer along Gomez Creek will be enhanced with native vegetation to improve wildlife movement. As described in Section 2.3.2.2(E), impacts to the RPO Sensitive Habitat Lands (Gomez Creek wildlife movement function) are **less than significant**.

RPO Sensitive Habitat Lands on site also include the impacts to 2.7 acres of southern cactus scrub. RPO requires "development, grading, grubbing, clearing or any other activity or use damaging to sensitive habitat lands shall be prohibited, except that the authority may allow development when all feasible measures necessary to protect and preserve the sensitive habitat lands are required as a condition of permit approval and where mitigation provides an equal or greater benefit to the affected species." The applicant's engineer has prepared a feasibility study demonstrating that the impact has been minimized (attachment to Appendix E to the EIR). Compliance with the requirements of the RPO through specific RPO mitigation, "equal or greater benefit to the affected species," for the Sensitive Habitat Lands must be demonstrated (see **Impact-BI-4**). This would require that the impacted population of wrens have mitigation that includes a no net loss of habitat to their benefit.

Analysis (Guideline 5D: Compliance with Mitigation Requirements for CSS)

Impacts to coastal sage scrub will be mitigated in accordance to Section 4.3 of the Process Guidelines through dedication of land to open space, and the project does not preclude connectivity between areas of high habitat values defined by the Process Guidelines. Impacts would be **less than significant**.

Analysis (Guideline 5E: Goals and Objectives of Regional Planning Efforts)

There are no Habitat Conservation Plans (HCP), Habitat Management Plans (HMP), or Special Area Management Plans (SAMP) currently associated with the Warner Ranch project. The proposed project conforms to the goals and requirements as outlined in the above mentioned regional planning efforts. Therefore, there are **no impacts**.

Analysis (Guideline 5F: Minimize Impacts to BRCAs)

Since the Draft NCMSCP has not yet been adopted, the project does not analyze resources defined in the BMO. There are **no impacts** related to this guideline.

Analysis (Guideline 5G: High Value Habitat Connectivity)

The coastal sage scrub (including disturbed CSS) that would be impacted by the proposed project is considered Intermediate Value. The 81.7 percent of the coastal sage scrub in the project area will be preserved in an open space easement and function as a connection between coastal sage scrub communities in the region. Impacts would be **less than significant**.

Analysis (Guideline 5H: BMO-defined Movement Corridor and/or Linkages)

Since the Draft NCMSCP has not yet been adopted, the project does not analyze resources defined in the BMO. **No impacts** would result.

Analysis (Guideline 5I: Impacts to MSCP Narrow Endemic Species)

Since the Draft NCMSCP has not yet been adopted, it does not impact MSCP narrow endemic species and **no impacts** would occur.

Analysis (Guideline 5J: Effects on Survival of Listed Species)

All special-status plant and wildlife species are discussed in Section 2.3.1.5. No listed species have been documented breeding on site. Potential future impacts to arroyo toad are included above (refer to **Impact-BI-1**). Potential impacts to California gnatcatcher habitat are included above (refer to **Impact-BI-3**). Pre-construction surveys and mitigation measures are provided so the project will not affect the survival and recovery of any listed species. Impacts would be **less than significant**.

Analysis (Guideline 5K: Compliance with MBTA)

The California Department of Fish and Wildlife (CDFW) regulates activities subject to the MBTA. Any impacts to avian species protected under the MBTA would be considered **significant (Impact-BI-23)** and would require mitigation. These impacts are discussed in more detail in Section 2.3.2.1.

Analysis (Guideline.5L: Compliance with Bald and Golden Eagle Protection Act)

The project will not result in the take of eagles, eagle eggs, or any part of an eagle as described in the Bald and Golden Eagle Protection Act. Therefore, there are **no impacts** related to County significance guideline 4.5(l).

2.3.2.6 Cumulative Impact Analysis

The cumulative study area for biological resources is based on the geographic area where projects may result in cumulatively significant impacts to biological resources related to those resources identified as present or potentially present on the Warner Ranch project site. The resources of concern within the Warner Ranch project site include several listed species which have not been identified on site but have some potential to occur and therefore may be subject to significant cumulative impacts: arroyo toad, least Bell's vireo, southwestern willow flycatcher, and California gnatcatcher. In addition, species and resources identified on site include cactus wren and wildlife movement/habitat connectivity between the San Luis Rey and Mount Olympus. As such, the cumulative study area takes into account critical habitat units for the four listed species, mapping of the cactus populations, and areas of important habitat connectivity. The compilation of these factors resulted in the following boundaries for the cumulative study area, as shown on Figure 2.3-8:

- North – San Diego County/Riverside County border is used as a boundary condition as it allows for inclusion of a significant portion of Pala Creek and all of Mount Olympus. None of the critical habitat units of the species of concern extend into Riverside County. Populations of California gnatcatcher and cactus wren in southern Riverside County are geographically separated from populations in the San Luis Rey Valley.
- East – San Luis Rey Valley, including Pauma Valley, is included. The upper portion of the Palomar Mountains is not included because of differing habitat and species composition, compared with the Warner Ranch project area.
- South – San Luis Rey Valley, including tributary drainages, are included. The community of Valley Center is excluded as none of the critical habitat units of the species of concern extend into this area and habitat connectivity with this area is not identified as a biological resource of concern for the Warner Ranch project.
- West – San Luis Rey Valley, including tributary drainages, up to Interstate 15 (I-15). While many of the critical habitat units cross I-15, the freeway represents a significant barrier and is a reasonable division between subpopulations, especially given the location of Warner Ranch approximately 4 miles from I-15. Projects west of I-15 are not likely to have significant cumulative impacts to resources east of I-15. With regards to California gnatcatcher and cactus wren specifically, the occurrences of these species in the vicinity of Fallbrook are geographically separated from populations in the San Luis Rey Valley east of I-15, and as such, these areas are not included in the cumulative study area.

Projects within the cumulative study area for biological resources are as listed in Table 2.3-6, Projects with Potential Cumulative Impacts to Biological Resources, are divided amongst those

that do not have identified significant biological resource impacts and those that do. The guidelines for cumulative impacts are based on the same significance guidelines as for determining project level impacts.

Cumulative Impacts to Sensitive Habitats. Table 2.3-7, Approximate Impacts to Habitat/ Vegetation Types, summarizes the cumulative impacts of six projects, with and without Warner Ranch (County of San Diego 2014a, 2014b). Of the 12 habitat types affected, Warner Ranch would add to the cumulative loss of chaparral, coastal sage scrub, non-native grassland, southern cactus scrub, and other wetlands/waters. Warner Ranch would not contribute to the cumulative loss of sensitive habitats including oak woodlands, riparian habitats, wetlands, open water, or eucalyptus. While the project does contribute to the cumulative loss of other sensitive habitats (chaparral, coastal sage scrub, grasslands), the cumulative loss of these habitats is not significant given the extent of these habitats within the cumulative study area. Comparison of the habitat acreage losses of these projects with the total amount of these habitats according to SANDAG's most recent regional vegetation mapping indicate that the cumulative loss of coastal sage scrub and chaparral would be less than 1 percent and less than 4 percent for grassland (SANDAG 2011). Given such a small amount of habitat loss, these vegetation community types will persist in this region despite cumulative impacts. Furthermore, each project will include measures to fully mitigate the loss of sensitive habitats, thus ensuring the local, long-term conservation of like-functioning habitat. In terms of impacts to species that may be covered under a future NCCP, and in particular those species associated with coastal sage scrub (including California gnatcatcher), each project is required to conform with the planning guidelines and policies for regional conservation, including the NCCP. As discussed in Section 2.3.2 and provided in the Biological Technical Report, the Warner Ranch project meets the findings required for interim habitat loss of coastal sage scrub and would ensure that the project would not preclude conservation goals of the NCCP by ensuring that important populations of covered species are not lost to development. Additionally, the project was evaluated under the NCMSCP and as such multiple meetings and negotiations occurred with the resource agencies to ensure appropriate habitat conservation. Therefore, the project's contribution to cumulative impacts would be **less than significant**.

Cumulative Impacts to Sensitive Plants. As discussed in Section 2.3.2.1, project construction would not result in the loss of any federal or state listed plants or any County List A and B Species. There are no direct impacts to rainbow manzanita or Parry's tetracoccus. No other County List A or B species have been observed in the project area. Thus, **no cumulative impacts** would result.

List C and D and Other Species. Direct impacts to prostrate spineflower and graceful tarplant will occur as a result of proposed grading activities. The entire population of prostrate spineflower (approximately 410) is located within the proposed grading activities, and 99 percent

of the population of graceful tarplant (approximately 23,424) is located within the proposed grading activities or fire buffer. These species grow in non-native grasslands and tolerate some disturbance, as from ranching.

Prostrate spineflower is not recognized by any federal, state, or local agencies as special-status. It was considered by CNPS for ranking as a rare plant, but was rejected based on being "too common". Based on its stable local populations and lack of rarity, impacts to approximately 410 individuals in the project area which is also a low number of individuals for an annual plant would not affect the overall conservation status of the species, or impact the long-term survival of this plant. Potential cumulative impacts are **not likely to be significant**.

Graceful tarplant is a CRPR 4.2 and County Group D species, which means it has limited distribution in California and is fairly uncommon. Based on its low rarity ranking by both CDFW and the County, impacts to the majority of the population of graceful tarplant in the project area would not affect the overall conservation status of the species, or impact the long-term survival of this plant. Potential **cumulative impacts are not likely to be significant**.

Cumulative Impacts to Sensitive Wildlife. As detailed in Section 2.3.2.1, no federal or state-listed species would be impacted by the project, but there are two resident pairs of cactus wren within the project area. None of the other identified projects have identified impacts to cactus wren. None of the projects would result in a net-loss of habitat for least Bell's vireo or southwestern willow flycatcher.

As discussed above, the project conforms with the planning guidelines and policies for regional conservation, including the NCCP and was evaluated by the resource agencies to ensure that the project footprint does not encroach into areas that are important for regional conservation. Therefore, the lack of other projects that would have contributing impacts and the coordination with resource agencies would ensure that the project's contribution to cumulative impacts is considered **less than significant**.

Cumulative Impacts to Wildlife Movement As detailed in Section 2.3.2.4, the project would have potentially significant impacts to wildlife movement. None are located along Gomez Creek such that they may, in combination with the Warner Ranch project, contribute to the cumulative loss of wildlife movement along the Gomez Creek corridor between Mount Olympus and the San Luis Rey River. As discussed above, the project has been coordinated with the resource agencies to ensure that the project footprint does not encroach into areas that are important for regional conservation. Therefore, the lack of other projects that would have contributing impacts and coordination with resource agencies would ensure that the project's contribution to cumulative impacts is considered **less than significant**.

2.3.3 Significance of Impacts Prior to Mitigation

The following significant impacts have been identified:

2.3.3.1 Sensitive Species

Impact-BI-1 The proposed project has the potential to impact arroyo toad on 18.3 acres of suitable aestivation habitat within 1,000 meters (1 kilometer) of occupied habitat on the San Luis Rey River, if arroyo toad were to migrate across SR 76 to the site in the future and occupy potentially suitable arroyo toad habitat in Gomez Creek.

Impact-BI-2 The proposed project has the potential to impact southwestern willow flycatcher and least Bell's vireo on 0.1 acre of wetland scrub, woodland or forest, if these riparian obligate breeding species occur on site in proximity to the development in the future.

Impact-BI-3 The proposed project has the potential to impact California gnatcatcher on approximately 35.9 acres of suitable coastal sage scrub (including disturbed coastal sage scrub) and southern cactus scrub if this species occurs on site in the future.

Impact-BI-4 The proposed project would directly impact one cactus wren location and 2.7 acres of occupied southern cactus scrub.

Impact-BI-5 The proposed project would directly impact 108.0 acres of occupied habitat for Southern California rufous-crowned sparrow (County Group I species).

Impact-BI-6 The proposed project would directly impact approximately 103.1 acres of foraging habitat for golden eagle, white-tailed kite, turkey vulture and northern harrier (County Group I species).

Impact-BI-7 The proposed project has the potential to directly impact two-striped garter snake, yellow warbler, and other riparian County Group I species.

Impact-BI-8 The proposed project would directly impact occupied habitat for Coastal western whiptail, northern red-diamond rattlesnake, Blainville's horned lizard, orange-throated whiptail, Northwestern San Diego pocket mouse and San Diego desert woodrat (County Group II species).

Impact-BI-9 The proposed project could result in potential indirect impacts to special-status plant species and vegetation on a short-term basis due to construction activity.

Impact-BI-10 Potential long-term indirect impacts to special-status plant species and vegetation could include trampling by humans and pets traveling off-trail, invasion by exotic plants and animals, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, fire, hydrological changes (e.g., surface and groundwater level and quality), and collection.

Impact-BI-11 The proposed project could result in potential indirect impacts to special-status wildlife species on a short-term basis due to construction activity.

Impact-BI-12 Potential long-term indirect impacts to special-status wildlife species could include trampling of wildlife or necessary habitat by humans and pets traveling off-trail, domestic pets (e.g., cats and dogs) impacting prey (e.g., ground squirrel, rabbits, other rodents), invasion by exotic plants and animals, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, fire, hydrological changes (e.g., surface and groundwater level and quality), collection, killing (red-diamond rattlesnake), disruption of wildlife movement patterns, collisions with vehicles, and loss of foraging habitat.

Impact-BI-13 There are potential short-term indirect impacts to nesting raptors.

Impact-BI-14 Potential long-term indirect impacts to roosting and nesting habitat for raptors would be a significant impact.

Impact-BI-15 The proposed off-site waterline and sewer line could result in short-term, indirect impacts associated with noise and increased human presence if the construction occurred during the nesting season for nesting birds, including California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher.

2.3.3.2 Sensitive Habitat and Jurisdictional Waters

Impact-BI-16 The proposed project would result in direct permanent loss of 105.0 acres of the following special-status upland vegetation communities: Diegan coastal sage scrub (including disturbed), granitic southern mixed chaparral, non-native grassland, and extensive agriculture (pasture land).

Impact-BI-16a The proposed project would result in direct permanent loss of 2.7 acres of southern cactus scrub.

Impact-BI-16b The proposed project has the potential to result in the loss of 33.2 acres of Diegan coastal sage scrub.

Impact-BI-16c The proposed project has the potential to result in the loss of 2.3 acres of granitic southern mixed chaparral.

Impact-BI-16d The proposed project has the potential to result in the loss of 20.3 acres of non-native grassland.

Impact-BI-16e The proposed project has the potential to result in the loss of 50.1 acres of extensive agricultural land.

Impact-BI-17 The proposed project would result in direct permanent loss of 0.13 acre of the following special-status wetland/jurisdictional communities: Southern coast live oak riparian forest and non-wetland drainages.

Impact 17a The proposed project has the potential to result in the permanent loss of 0.1 acre of Southern coast live oak riparian forest

Impact 17b The proposed project has the potential to result in the permanent loss of 0.03 acre of non-wetland drainages.

Impact-BI-18 The proposed project would result in indirect short-term impacts to jurisdictional waters, including wetlands, within on-site open space and adjacent native habitat areas during construction.

Impact-BI-19 The proposed project would result in indirect long-term impacts to jurisdictional waters, including wetlands, within on-site open space and adjacent native habitat areas following project.

Impact-BI-20 The proposed project would result in indirect short-term impacts to special-status vegetation communities within on-site open space and adjacent native habitat areas during construction.

Impact-BI-21 The proposed project would result in indirect long-term impacts to special-status vegetation communities within on-site open space and adjacent native habitat areas following project construction.

2.3.3.3 Impacts to Wildlife Movement

Impact-BI-22 The 20 percent increase in traffic may result in increased mortality of wildlife and adversely affect wildlife connectivity along Gomez Creek.

2.3.3.4 Impacts to Nesting Birds

Impact-BI-23 If mass grading occurs during the period of March 15 through August 31, bird nesting could be adversely affected.

2.3.4 Mitigation

The proposed project includes on-site open space that provides adequate mitigation for project impacts to vegetation. Table 2.3-8, Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas, lists the total impacts to various vegetation communities, the mitigation ratios that are applicable to the various significant impact determinations, the amount of preserve area within on-site open space, and any deficit or surplus of mitigation. Vegetation communities with a deficit of mitigation following dedication of on-site open space are discussed further below.

Following the County Guidelines, there are several areas that will be considered "impact neutral." Impact neutral areas are land that is not being directly impacted, but cannot be counted toward mitigation; these areas include RPO wetlands and wetland buffers and isolated pockets of open space. Areas that are designated as impact neutral are not included in the project open space acreage. The isolated pockets of open space that have been excluded from mitigation are small slivers of open space in the southeast portion of the project. These areas are located adjacent to off-site natural lands; since future development of the off-site areas is unknown, they may become unviable.

Open space areas that are considered viable for mitigation include habitat that is connected to other large natural land areas (e.g., open space area in the western portion of the project area) and polygons that are large enough to provide habitat for a variety of plant and wildlife species (e.g., open space in the northeastern portion of the project area).

2.3.4.1 Mitigation Measures

Conditions of Approval (COA)

COA BIO No. 1 **Biological Easement.** In order to protect sensitive biological resources, pursuant to the RPO and CEQA, a biological open space easement will be granted over 359.0 acres, as shown on the Tentative Map. This easement will be granted to the County of San Diego and prohibits all of the following: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. Granting of this open space

authorizes the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. The exceptions to this prohibition are: 1) Vegetation clearing by hand by written order of the fire authority for reducing an identified fire hazard; 2) Activities conducted pursuant to an approved revegetation or resource management plan; 3) Vector control by written order of the County; and 4) Construction, use, and maintenance of approved multiuse, non-motorized trails.

COA BIO No. 2 Resource Management Plan (RMP) In order to provide for the long-term management of the proposed open space preserve, the RMP will be prepared and implemented. The final RMP will be completed to the satisfaction of the Director of the Department of Planning and Development Services (PDS) or DPR, as follows: 1) The plan will be prepared and approved pursuant to the most current version of the County of San Diego Biological Report Format and Content Requirements; 2) The habitat land to be managed will be owned by a land conservancy or equivalent; 3) Open space easements will be dedicated in perpetuity; 4) A resource manager will be selected and approved, with evidence provided demonstrating acceptance of this responsibility, 5) The RMP funding mechanism will be identified and adequate to fund annual costs for implementation; and 6) A contract between the applicant and County will be executed for the implementation of the RMP, and funding will be established with the County as the third party beneficiary.

COA BIO No. 3 **Resource Avoidance Areas/Preconstruction Survey – Arroyo Toad.** In order to minimize impacts to listed species pursuant to the RPO and Endangered Species Act (ESA), preconstruction surveys will occur to define Resource Avoidance Areas (RAA) on the grading plans, or to define the need for ESA Take Permits, if necessary. The following surveys are required prior to approval of each phase of grading: 1) A qualified arroyo toad biologist will examine the impact areas to determine if any portions of the impact area have suitable habitat for occupation by arroyo toad and will prepare a survey report. Upon written agreement with USFWS, a protocol survey may or may not be required. If it is determined that the site is occupied, the RAA will be defined and marked on all plans. If the project requires a "take," evidence that an ESA Take Permit will be submitted to the Director of Planning and Land Use. 2) There will be no brushing, clearing, and/or grading allowed within arroyo toad RAAs year-round unless the Director of Planning and Development Services waives

this condition through written concurrence from the USFWS, provided that no arroyo toads are present in the vicinity of the brushing, clearing, or grading based on implementation of a relocation plan approved by the USFWS. The plan will require the details of installation of exclusionary fencing after it may reasonably be assumed that all toads are outside of the project boundaries (after first substantial rain of the season [greater than 0.5 inch] after February, unless it can be shown that arroyo toad are active earlier in the vicinity).

COA BIO No. 4 **Oak Woodland, Oak Riparian Forest, and Non-wetland Drainage Restoration.** Mitigation required for impacts to oak root zone, southern coast live oak riparian forest, and non-wetland drainage will be provided via one of the options below.

Option 1: A Revegetation Plan is attached and evaluates the option of creation/enhancement of 1.0 acre of oak woodland, including 0.3 acre of southern coast live oak riparian forest and 0.7 acre of oak woodland on the project site; and creation, enhancement, or restoration of 0.03 acre of non-wetland drainage. On-site areas of potential wetlands creation/ enhancement are identified in Appendix O of the Biological Technical Report, which is included as Appendix E to the EIR.

The Revegetation Plan shall conform to the most current version of the County of San Diego Report Format and Content Requirements for Revegetation Plans. In order to assure project completion and success of the Revegetation Plan, a surety shall be provided and an agreement shall be executed with the County of San Diego and consist of a letter of credit, bond, or cash for 100 percent of the estimated costs associated with the implementation of the Revegetation Plan and a 10 percent cash deposit of the cost of all improvements (no less than $3,000.00; no more than $30,000.00). The surety shall be released upon completion of the Revegetation Plan provided the installed vegetation is in a healthy condition and meets the plan's success criteria.

Option 2: If purchasing Mitigation Credit, the mitigation bank shall be approved by the CDFW. The following evidence of purchase shall include the following information to be provided by the mitigation bank:

1. A copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased.

2. If not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land.
3. To ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land.
4. An accounting of the status of the mitigation bank. This shall include the total amount of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.

Option 3: If habitat credit cannot be purchased in a mitigation bank, then the applicant shall provide for the conservation of habitat of the same amount and type of land located in San Diego County as indicated below:

The type of habitat and the location of the proposed mitigation, should be pre-approved by PDS before purchase or entering into any agreement for purchase.

A RMP shall be prepared and approved pursuant to the County of San Diego Biological Report Format and Content Requirements to the satisfaction of the Director of PDS. If the off-site mitigation is proposed to be owned and/or managed by DPR, the RMP shall also be approved by the Director of DPR.

In lieu of providing a private habitat manager, the applicant may contract with a federal, state or local government agency with the primary mission of resource management to take fee title and manage the mitigation land. Evidence of satisfaction must include a copy of the contract with the agency, and a written statement from the agency that (1) the land contains the specified acreage and the specified habitat, or like functioning habitat, and (2) the land will be managed by the agency for conservation of natural resources in perpetuity.

Documentation: The applicant shall purchase the off-site mitigation credits and provide the evidence to the PDS for review and approval. If the off-site mitigation is proposed to be owned or managed by DPR, the applicant must provide evidence to the PDS that DPR agrees to this proposal. It is recommended that the applicant submit the mitigation proposal to the PDS, for a pre-approval. If an RMP is going to be

submitted in-lieu of purchasing credits, then the RMP shall be prepared and an application for the RMP shall be submitted to the PDS.

Timing: Prior to the approval of the map and prior to the approval of any plan and issuance of any permit, the mitigation shall be completed.

Monitoring: The PDS shall review the mitigation purchase for compliance with this condition. Upon request from the applicant PDS can preapprove the location and type of mitigation only. The credits shall be purchased before the requirement can be completed. If the applicant chooses option #2, then the PDS shall accept an application for an RMP, and PDS shall review the RMP submittal for compliance with this condition and the RMP Guidelines.

Option 4: Impacts to 0.1 acre of southern coast live oak riparian forest from the waterline shall be avoided, which would reduce impacts associated with oak woodland impacts and reduce required mitigation from 1.0 acre to 0.7 acre. Evidence of avoidance shall be provided and approved by PDS and substantiated through a biological monitoring compliance report submitted to PDS.

COA BIO No. 5 **Resource Avoidance Areas/Preconstruction Survey – California gnatcatcher.** In order to minimize impacts to listed species pursuant to RPO and the NCCP, RAAs will be established on the grading plans. There will be no brushing, clearing, and/or grading allowed within California gnatcatcher RAA (coastal sage scrub) during the breeding season, defined as between February 15 and August 31, unless it can be shown that portions of the RAA are not occupied by California gnatcatcher, or the Director of PDS waives this condition, through written concurrence from the USFWS and the CDFW and provided that no California gnatcatcher nests are within 300 feet of the brushing, clearing, or grading.

COA BIO No. 6 **Resource Avoidance Areas/Preconstruction Survey.** In order to minimize impacts to sensitive species pursuant to the RPO and CEQA, RAAs will be established on the grading plans. There will be no brushing, clearing, and/or grading allowed within Coastal cactus wren breeding habitat RAAs (southern cactus scrub) during the breeding season, defined as between February 15 and August 15, unless the Director of PDS waives this condition through written concurrence from the USFWS and the CDFW, provided that no cactus wren nests are within 300 feet of the brushing, clearing, or grading.

COA BIO No. 7 **Biological Monitoring Contract.** In order to prevent inadvertent disturbance to sensitive biological resources, a County-approved "Biological Monitor," shall be contracted to perform biological monitoring during grading, clearing, grubbing, trenching, and construction activities. A contract shall be provided to the County demonstrating the work to be completed, and a Memorandum of Understanding (MOU) between the biological consulting company and the County of San Diego shall be executed. The contract shall include a cost estimate for the monitoring work and reporting. The cost of the monitoring shall be added to the grading bonds that will be posted with the Department of Public Works or bond separately with the PDS.

COA BIO No. 8 **Biological Monitoring Prior to Construction.** In order to prevent inadvertent disturbance to sensitive biological resources, pre-grading work will include duties pursuant to the most current version of the County of San Diego Biological Report Format and Requirement Guidelines. The Biologist shall attend the preconstruction meetings and other meetings to discuss construction requirements. Such meeting shall include the PDS Permit Compliance Section. The Biological Monitor will verify that the limits of each phase of project construction have been clearly delineated with temporary fencing by a survey crew. On site, the temporary fencing shall be required when grading is proposed within 300 feet of open space. Off-site, temporary fencing shall be installed to indicate the allowable limits of grading, clearing, and staging areas. Construction access shall utilize existing developed areas or be within the identified construction area and be clearly marked (i.e., flagged and/or staked). The Biological Monitor will also verify that any security lighting around staging or storage areas are motion censored.

Construction staging areas, equipment refueling areas, and other areas for equipment and materials storage shall be located within the identified construction area and displayed on the project plans. The Biological Monitor will supervise and verify placement of temporary fencing of open space easements. The placement of such fencing shall be approved by the PDS, Permit Compliance Section. For each grading phase, these items shall be checked by the Biological Monitor before initiation of clearing or construction. The Biological Monitor shall submit a letter to the County indicating compliance and the readiness for work to commence.

COA BIO No. 9 **Biological Monitoring During Construction.** In order to prevent inadvertent disturbance to sensitive biological resources, grading generally located within 300 feet of proposed open space, within 100 feet of RAAs, or within natural and naturalized habitats as determined by the Biological Monitor shall be monitored, and the work will include monitoring duties before, during, and after construction pursuant to the most current version of the County of San Diego Biological Report Format and Requirement Guidelines. The Biological Monitor shall supervise and monitor grading activities to ensure against damage to biological resources that are intended to be protected and preserved. The Biological Monitor shall perform the following duties, as necessary 1) prepare a California gnatcatcher- and arroyo toad-monitoring program to the satisfaction of PDS Permit Compliance Section and the Wildlife Agencies; 2) perform weekly inspection of fencing and erosion control measures (daily during rain events) near proposed preservation areas and report deficiencies immediately to the DPW Construction Inspector; 3) periodically monitor the work area for excessive dust generation in compliance with the County grading ordinance and report deficiencies immediately to the DPW Construction Inspector; 4) conduct training for contractors and construction personnel for the purpose of resource protection (description of endangered species, habitat, and conservation measures); 5) monitor construction-related lighting (lowest intensity allowed for safety, shielded, and directed away from preserved habitat); 6) monitor equipment maintenance, staging, and fuel dispensing areas to ensure there is no runoff to waters of the United States; 7) stop or divert all work when deficiencies require mediation and notify DPW Construction Inspector and PDS Permit Compliance Section within 24 hours; 8) produce periodic (monthly during grading) and final reports and submit to PDS (final report will release bond); 9) confer with the Wildlife Agencies and PDS Permit Compliance Coordinator within 24 hours any time protected habitat, gnatcatchers, toads, or raptors are being affected by construction; 10) attend construction meetings and other meetings as necessary; and 11) prepare and submit a final letter report substantiating the monitoring and that grading did not impact the project open space areas or other sensitive biological resources (include photos of temporary fencing prior to grading and of the site after clearing and grading, monitoring logs).

COA BIO No. 10 **Temporary Fencing.** In order to prevent inadvertent disturbance to sensitive biological resources, temporary construction fencing shall be

installed. Temporary fencing is required in all locations of the project where proposed grading or clearing is within 300 feet of an open space easement boundary or within 100 feet of an area that is designated as a RAA. The placement of such fencing shall be approved by the PDS, Permit Compliance Section. Upon approval, the fencing shall remain in place until the conclusion of grading activities after which the fencing shall be removed.

COA BIO No. 11 **Limited Building Zone Easement.** In order to protect sensitive biological resources in the adjacent biological open space easement, pursuant to the RPO and CEQA, a Limited Building Zone Easement will be granted to the County, as shown on the Tentative Map. The purpose of this easement is to limit the need to clear or modify vegetation for fire protection purposes within the adjacent biological open space easement, restrict unauthorized access, prohibit landscaping with exotic pest plants that may invade the open space easement, and prohibit artificial lighting and focal use areas that would alter wildlife behavior in the open space easement. This easement requires the landowner to maintain permanent fencing and signage. The easement precludes 1) placement, installation, or construction of habitable structures, including garages or accessory structures designed or intended for occupancy by humans or animals, 2) landscaping with exotic pest plants, 3) artificial lighting except low-pressure sodium fixtures shielded and directed away from the open space easement, 4) focal use areas including arenas, pools, and patios.

In addition, landscape plans shall have a prohibition of street trees or shrubs (native or non-native) in landscaping adjacent to preserved open space areas where cactus wren are located to minimize perching from avian predators, and require all lighting be shielded and or directed downward to not shine on any adjacent open space.

COA BIO No. 12 **Open Space Signage.** In order to protect the proposed open space easement from entry, informational signs will be installed, where appropriate, along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the final RMP for pathways and trails. The signs must be corrosion resistant, a minimum of 6 inches by 9 inches in size, on posts not less than three (3) feet in height from the ground surface, and state "Sensitive Environmental Resources Protected by Easement. Entry without express written permission from the County of San Diego is prohibited."

COA BIO No. 13 **Open Space Fence/Wall.** In order to protect the proposed open space easement from entry, an open space fence or wall will be installed along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the final RMP for pathways and trails. The barrier must be a minimum construction of vertical metal fencing, but may be other suitable construction material, as approved by PDS. Split-rail fencing will be installed along the trail where parallel to the Gomez Creek corridor.

COA BIO No. 14 **Placement of Open Space Fencing and Signage.** Prior to completion of grading, the fencing and signage shall be installed as approved on the Conceptual Grading and Development Plan.

COA BIO No. 15 **Easement Avoidance.** Prior to completion of grading, the Biological Monitor will prepare and submit a final letter report substantiating that the clearing, grading, and construction did not impact the project open space areas, pursuant to County Grading Ordinance Section 87.112. The easements indicated on the grading plans are for the protection of sensitive environmental resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. It is unlawful to grade or clear within the open space easements. Any disturbance shall constitute a violation of the County Grading Ordinance Section 87.112 and will result in enforcement action and restoration.

COA BIO No. 16 If installation of the waterline along Jeremy Way occurs during the period of February 15 to August 31 (California gnatcatcher breeding season) or if installation of the sewer line along the SR 76 right-of-way occurs during the period of March 15 through August 31 (least Bell's vireo breeding season), a County-approved biologist shall conduct pre-construction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area. If the habitat is suitable for raptors, the survey area shall extend to 500 feet from the impact area, and if the habitat is suitable only for nesting by non-listed and non-raptor avifauna, the survey area shall extend 50 to 300 feet from the impact area, depending on the habitat type. The survey shall begin not more than 3 days prior to the beginning of construction activities. If nesting birds are detected by the biologist, the following buffers would be

established: 1) no work within 50 feet of a non-listed and non-raptor avifauna nest; 2) no work within 300 feet of a federally or state-listed species, such as southwestern willow flycatcher or least Bell's vireo; and 3) no work within 500 feet of a raptor nest. The buffer will be flagged in the field and mapped on the construction plans. To the extent possible, the non-construction buffer zones will be avoided until the nesting cycle is complete. However, it may be reasonable for the County to reduce these buffer widths depending in the project area-specific conditions (e.g., the width and type of screening vegetation) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction must take place within these buffer widths, the project applicant should contact the County to determine how to best minimize impacts to nesting birds.

COA BIO No. 17 **Revegetation Plan or Off-Site Conservation.** In order to mitigate for impacts to 2.7 acres of southern cactus scrub, which are sensitive biological resources pursuant to the RPO and CEQA, revegetation or off-site conservation shall occur. On-site areas of potential cactus scrub creation/enhancement are identified in Appendix O of the Biological Technical Report, which is included as Appendix E to the EIR.

Option 1: Revegetation of 3.5 acres of cactus scrub habitat benefitting cactus wren shall be created by implementation of a Revegetation Plan to be submitted and approved prior to approval of the (first) Final Map. The Revegetation Plan shall focus on the following locations in order of importance: a) the on-site southeastern border in and adjacent to fuel management areas to provide connectivity with existing suitable cactus wren habitat, b) suitable south-facing slopes in the project area, c) suitable RPO wetland buffers, and d) created and conserved in an off-site preserve benefiting cactus wren (see mapped locations in the Conceptual RMP). The Revegetation Plan shall be prepared in conformance with County Requirements for Revegetation Plans, in accordance with the specifics included in the Conceptual RMP, and implemented prior to impacts of grading for the phase of development which includes cactus wren habitat. This timing would allow on-site cactus scrub revegetation to be installed and managed/monitored before the occupied areas would be impacted and so that appropriate restored habitat for cactus wren would be available in the on-site open space for dispersal. A Preliminary Revegetation Memo is attached to this report and discusses the options

for creation/enhancement of 3.5 acres of cactus scrub on the project site including salvaging on-site cacti and clustering of mature cacti within the revegetation areas. Due to conservation of one pair of cactus wren within the project open space; the additional 3.5 acres of cactus scrub revegetation would be considered occupied habitat. The Revegetation Plan will also include creation/ enhancement options for riparian vegetation and RPO buffer enhancement.

In order to assure project completion and success of the Revegetation Plan, a surety shall be provided and an agreement shall be executed with the County of San Diego and consist of a letter of credit, bond, or cash for 100 percent of the estimated costs associated with the implementation of the Revegetation Plan and a 10 percent cash deposit of the cost of all improvements (no less than $3,000.00; no more than $30,000.00). The surety shall be released upon completion of the Revegetation Plan provided the installed vegetation is in a healthy condition and meets the plan's success criteria.

The type of habitat and the location of the proposed revegetation, should be pre-approved by PDS before initiating revegetation implementation. The habitat shall support at least one pair of cactus wren and provide an equal or greater benefit to the species when compared with the habitat impacted by the project.

Option 2: If purchasing Mitigation Credit, the mitigation bank shall be approved by the CDFW and is expected to be located in an area which benefits the conservation of cactus wren in San Luis Rey River Valley east of I-15 or in the vicinity of Valley Center (i.e., within the presumed corridor between the San Luis Rey River and San Pasqual Valley). The following evidence of purchase shall include the following information to be provided by the mitigation bank:

1. A copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased.
2. If not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land.

3. To ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land.
4. An accounting of the status of the mitigation bank. This shall include the total amount of credits available at the bank, the amount required by this project, and the amount remaining after utilization by this project.

The type of habitat and the location of the proposed mitigation, should be pre-approved by PDS before purchase or entering into any agreement for purchase. The habitat shall support at least one pair of cactus wren and provide an equal or greater benefit to the species when compared with the habitat impacted by the project and potential benefits of on-site revegetation.

Option 3: If habitat credit cannot be purchased in a mitigation bank, then the applicant shall provide for the conservation of habitat of the same amount and type of land located in in an area which benefits the conservation of cactus wren in San Luis Rey River Valley east of I-15 or in the vicinity of Valley Center (i.e., within the presumed corridor between the San Luis Rey River and San Pasqual Valley) as indicated below:

The type of habitat and the location of the proposed mitigation, should be pre-approved by PDS before purchase or entering into any agreement for purchase. The habitat shall support at least one pair of cactus wren and provide an equal or greater benefit to the species when compared with the habitat impacted by the project and potential benefits of on-site revegetation.

An RMP shall be prepared and approved pursuant to the County of San Diego Biological Report Format and Content Requirements to the satisfaction of the Director of PDS and CDFW. If the off-site mitigation is proposed to be owned and/or managed by DPR, the RMP shall also be approved by the Director of DPR.

In lieu of providing a private habitat manager, the applicant may contract with a federal, state, or local government agency with the primary mission of resource management to take fee title and manage the mitigation land. Evidence of satisfaction must include a copy of the contract with the agency and a written statement from the agency that (1) the land contains the specified acreage and the specified habitat, or like-functioning habitat,

and (2) the land will be managed by the agency for conservation of natural resources in perpetuity.

Documentation: The applicant shall purchase the off-site mitigation credits and provide the evidence to the PDS for review and approval. If the off-site mitigation is proposed to be owned or managed by DPR, the applicant must provide evidence to the PDS that DPR agrees to this proposal. It is recommended that the applicant submit the mitigation proposal to the PDS, for a pre-approval. If an RMP is going to be submitted in-lieu of purchasing credits, then the RMP shall be prepared, and an application for the RMP shall be submitted to the PDS.

Timing: Prior to the approval of the map and prior to the approval of any plan and issuance of any permit, the mitigation shall be completed.

Monitoring: The PDS shall review the mitigation purchase for compliance with this condition. Upon request from the applicant, PDS can preapprove the location and type of mitigation only. The credits shall be purchased before the requirement can be completed. If the applicant chooses option No. 2, then the PDS shall accept an application for an RMP, and PDS shall review the RMP submittal for compliance with this condition and the RMP Guidelines.

COA BIO No. 18 **Resource Avoidance Areas/Preconstruction Survey.** In order to minimize impacts to sensitive species pursuant to RPO and CEQA, RAAs will be established on the grading plans. There will be no brushing, clearing, and/or grading allowed within raptor breeding habitat RAA (suitable trees) during the breeding season, defined as between February 1 and June 1, unless the Director of PDS waives this condition through written concurrence from the USFWS and the CDFW, provided that no raptor nests are within 500 feet of the brushing, clearing or grading.

COA BIO No. 19 To comply with the state and federal regulations for impacts to "waters of the United States and state," the following agency permits are required, or verification that they are not required shall be obtained.

1. The following permit and agreement shall be obtained, or provide evidence from the respective resource agency satisfactory to the director of Planning and Land Use that such an agreement or permit is not required:

a. A Clean Water Act, Section 401/404 permit issued by the California RWQCB and the ACOE for all project-related disturbances of waters of the United States and/or associated wetlands.

b. A Section 1602 Streambed Alteration Agreement issued by the CDFW for all project-related disturbances of any streambed.

2. Documentation: The applicant shall consult each agency to determine if a permit or agreement is required. Upon completion of the agency review of this project, the applicant shall provide a copy of the permit(s)/agreement(s), or evidence from each agency that such an agreement or permit is not required to the PDS for compliance.

3. Timing: Prior to approval of any grading and or improvement plans and issuance of any Grading or Construction Permits.

Monitoring: The PDS shall review the permits/agreement for compliance with this condition. Copies of these permits should be transmitted to the Department of Public Works (DPW) for implementation on the grading plans.

COA BIO No. 20 As part of the Revegetation Plan (described in COA BIO No. 17), extensive agriculture areas within the RPO wetland buffer will be revegetated with a combination of transitional riparian species and upland native shrubs in order to enhance the Gomez Creek corridor for wildlife movement. The Revegetation Plan must demonstrate, to the satisfaction of PDS, that the net result of the revegetation is that the reduced but revegetated buffer along Gomez Creek provides an equal or greater benefit to species that utilize that corridor compared with a 100' foot buffer that lacks the revegetation proposed.

COA BIO No. 21 If mass grading occurs during the period of March 15 through August 31, a County-approved biologist shall conduct pre-construction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area. If the habitat is suitable for raptors, the survey area shall extend to 500 feet from the impact area and if the habitat is suitable only for nesting by non-listed and non-raptor avifauna, the survey area shall extend 50 to 300 feet from the impact area, depending on the habitat type. The survey shall begin not more than 3 days prior to the beginning of construction activities. If nesting birds are detected by the biologist, the following buffers would be established: 1) no work within 50 feet of a non-listed and non-raptor avifauna nest; 2) no work within 300 feet of a federally or state-listed species, such as southwestern willow flycatcher or least Bell's vireo; and 3) no work

within 500 feet of a raptor nest. The buffer will be flagged in the field and mapped on the construction plans. To the extent possible, the non-construction buffer zones will be avoided until the nesting cycle is complete. However, it may be reasonable for the County to reduce these buffer widths depending in the project area-specific conditions (e.g., the width and type of screening vegetation) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If mass grading must take place within these buffer widths, the project applicant should contact the County to determine how to best minimize impacts to nesting birds.

COA BIO No. 22 A traffic signal light shall be installed at the main entrance to the project thereby reducing vehicle speeds along SR 76 at the Gomez Creek crossing and reducing the likelihood of wildlife-vehicle collisions. Additionally, a permanent 8-foot tall woven-mesh or welded wire game management (wildlife damage control) fence shall be installed on both sides of Gomez Creek along the lower approximately 1,000 feet on site, such that wildlife are directed toward the undercrossing at Pala Road. The mesh will include approximate 7-inch tall grids along the top half, gradating down to 3-inch mesh in the lower quarter. This will provide visual and physical deterrence for larger wildlife and physical deterrence for smaller wildlife while maintaining material weight and cost efficiency. Fencing will be joined to the box culverts at SR 76 or will be directly adjacent to the culvert opening such that wildlife may not squeeze through or past the joint (intersection of the two).

For monitoring purposes, a digital game motion/heat triggering camera station will be established such that continual coverage of the undercrossing is achieved. If feasible, the station will include a solar cell to provide power and recharge batteries and a cellular transmitter to relay photographs to an off-site repository. Monitoring will begin at least 3 months prior to construction, continue through construction, as a condition of the grading plans, and be maintained in place for at least a period of 5 years following buildout of the project.

Photos will be evaluated and reported to PDS on a quarterly basis. As part of the Resource Management Plan, an annual report will provide a summary of monitoring results and any proposed adaptive management measures related to the directive fencing. Monitoring may continue at the discretion of the open space land manager, as deemed necessary to provide information for adaptive management.

Impact-BI-1 (arroyo toad)

While no arroyo toads have been documented on the project site, implementation of the proposed project could result in significant direct impacts to 18.3 acres of potential arroyo toad aestivation habitat. The following mitigation is proposed:

M-BI-1 The Biological Easement (see COA BIO No. 1) will conserve 359 acres.

M-BI-2 The RMP (see COA BIO No. 2) provides for long-term management of the proposed open space preserve.

M-BI-3 The construction monitoring (see COA BIO No. 3) includes toad surveys and toad exclusionary measures, if needed.

M-BI-4 ESA permitting and consultation will be done if toad is detected within the construction limits.

Impact-BI-2 (southwestern willow flycatcher and least Bell's vireo)

While no southwestern willow flycatcher or least Bell's vireo have been documented on the project site, implementation of the proposed project has the potential to impact 0.1 acre of potential southwestern willow flycatcher and least Bell's vireo breeding habitat. The following mitigation is proposed:

The Biological Easement and RMP (See **M-BI-1** and **M-BI-2)**, above will include approximately 17.3 acres of suitable habitat.

M-BI-5 The restoration or avoidance requirements (See COA BIO No. 4, above) would result in restoration of 0.3 acres of southern coast live oak riparian forest or avoidance of impacts.

Impact-BI-3 (California gnatcatcher)

While no California gnatcatchers have been documented on the project site, implementation of the proposed project has the potential to impact 35.9 acres of suitable California gnatcatcher habitat. The following mitigation is proposed:

The Biological Easement and RMP (See COA BIO No. 1 and COA BIO No. 2, above), would conserve 139.9 acres of suitable habitat for California gnatcatcher in an on-site open space easement.

M-BI-6 The construction monitoring (See COA BIO No. 5) includes California gnatcatcher surveys and avoidance measures.

Impact-BI-4 (cactus wren)

Implementation of the proposed project has the potential to impact one cactus wren location and 2.7 acres of occupied habitat. The following mitigation is proposed:

The Biological Easement and RMP (See **M-BI-1** and **M-BI-2**, above), would conserve 1.9 acres of suitable habitat for cactus wren in an on-site open space easement.

M-BI-7 The revegetation requirements (See COA BIO No. 17, above) would result in on-site creation/revegetation of 3.5 acres of southern cactus scrub, the purchase of mitigation credit, or off-site conservation and management. The applicant is required to implement mitigation that will result in equal or greater benefit to the species, as determined by PDS review of specific mitigation alternatives.

M-BI-8 The construction monitoring (See COA Bio No. 6) includes cactus wren surveys and avoidance measures.

Impact-BI-5 (Southern California rufous-crowned sparrow)

Implementation of the proposed project has the potential to impact 108.0 acres of occupied Southern California rufous-crowned sparrow habitat. The following mitigation is proposed:

The Biological Easement and RMP (see **M-BI-1** and **M-BI-2**, above) which conserves 280.3 acres of suitable grassland and shrubland habitat in an on-site open space easement.

Impact-BI-6 (golden eagle, white-tailed kite, turkey vulture, and northern harrier)

Implementation of the proposed project has the potential to impact 103.4 acres of foraging habitat for white-tailed kite, turkey vulture, and northern harrier. This area includes impacts to 11.4 acres of the most likely utilized foraging habitat and 91.0 acres of low to moderate suitability foraging habitat for golden eagle. The following mitigation is proposed:

The Biological Easement and RMP (see **M-BI-1** and **M-BI-2**, above), which conserves 165.1 acres of suitable forging habitat in an on-site open space easement and provides a specific monitoring program directed towards long-term golden eagle management and conservation.

Impact-BI-7 (two-striped garter snake, yellow warbler, and other riparian County Group I species)

Implementation of the proposed project has the potential to directly impact two-striped garter snake through the loss of 0.1 acre of suitable habitat due to installation of the waterline. The following mitigation is proposed:

The Biological Easement (see **M-BI-1**) will include approximately 17.3 acres of suitable habitat.

The restoration or avoidance requirements (See **M-BI-5**, above) would result in restoration of 0.3 acre of southern coast live oak riparian forest or avoidance of impacts.

Impact-BI-8 (County Group II species)

Implementation of the proposed project has the potential to directly impact Coastal western whiptail, northern red-diamond rattlesnake, Blainville's horned lizard, orange-throated whiptail, Northwestern San Diego pocket mouse, and San Diego desert woodrat (County Group II species). The following mitigation is proposed:

The Biological Easement and RMP (see **M-BI-1** and **M-BI-2**, above), which conserves 303.6 acres of suitable habitats in an on-site open space easement.

Impact-BI-9 (special status plant species and vegetation, short-term)

Implementation of the proposed project has the potential to result in short-term, indirect impacts to special-status plant species and vegetation. The following mitigation is proposed:

M-BI-9 **Biological Monitoring (**see COA BIO No. 7 through No. 10, above), which will ensure all work is limited to the development boundary through temporary fencing of disturbance areas in accordance with the approved plans and a biological monitor will be on site during pre-construction and construction activities in order to monitor the clearing/grubbing activities and minimize indirect impacts to adjacent open space areas, including jurisdictional waters.

Impact-BI-10 (special status plant species and vegetation, long-term)

Implementation of the proposed project has the potential to result in long-term, indirect impacts to special-status plant species and vegetation. The following mitigation is proposed:

M-BI-10 **RMP, Limited Building Zone Easement, Open Space Signage and Fencing/Wall, Easement Avoidance** (see COA BIO No. 2 and No. 11 through No. 15, above), which provide for long-term resource management and

monitoring and require that a limited building zone easement be dedicated to the County to minimize impacts adjacent to open space areas; open space easements be clearly marked with signs and fencing, as needed; and that signage and fencing be installed prior to completion of grading, including jurisdictional waters.

Impact-BI-11 (special-status wildlife species, short-term)

Implementation of the proposed project has the potential to result in short-term, indirect impacts to special-status wildlife species. The following mitigation is proposed:

See **M-BI-9**, above.

Impact-BI-12 (special status wildlife species, long-term)

Implementation of the proposed project has the potential to result in long-term, indirect impacts to special-status wildlife species. The following mitigation is proposed:

See **M-BI-10**, above.

Impact-BI-13 (nesting raptors, short-term)

Implementation of the proposed project has the potential to result in short-term, indirect impacts to nesting raptors. The following mitigation is proposed:

See **M-BI-9**, above.

Impact-BI-14 (raptor roosting and nesting habitat)

Implementation of the proposed project has the potential to result in long-term, indirect impacts to raptor roosting and nesting habitat. The following mitigation is proposed:

See **M-BI-10**, above.

Impact-BI-15 (nesting birds, short-term)

Implementation of the off-site waterline and sewer line as part of the proposed project has the potential to result in short-term, indirect impacts to nesting birds, including California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. The following mitigation is proposed:

M-BI-11 See COA BIO No. 16, which requires pre-construction surveys in suitable nesting habitat if installation of the waterline or sewer line occurs between February 15 and August 31.

Impact-BI-16 (special-status upland vegetation communities)

Implementation of the proposed project has the potential to result in the permanent loss of 105.0 acres of special-status upland vegetation communities, including Diegan coastal sage scrub, granitic southern mixed chaparral, non-native grassland, and extensive agriculture. The mitigation described below for each specific community.

Impact-BI-16a (southern cactus scrub)

Implementation of the proposed project has the potential to result in the permanent loss of 2.7 acres of southern cactus scrub. The following mitigation is proposed:

The Biological Easement (see **M-BI-1**) conserves 359.0 acres of habitat in an on-site open space easement, including 1.9 acres of southern cactus scrub.

See **M-BI-7**, above, which requires revegetation of southern cactus scrub.

Impact-BI-16b (Diegan coastal sage scrub)

Implementation of the proposed project has the potential to result in the loss of Diegan coastal sage scrub. The following mitigation is proposed:

The Biological Easement and RMP (see **M-BI-1** and **M-BI-2**, above), which conserves 359.0 acres of habitat in an on-site open space easement, including 138.0 acres of Diegan coastal sage scrub.

Impact-BI-16c (granitic southern mixed chaparral)

Implementation of the proposed project has the potential to result in the loss of granitic southern mixed chaparral. The following mitigation is proposed:

The Biological Easement and RMP (see **M-BI-1** and **M-BI-2**, above), which conserves 359.0 acres of habitat in an on-site open space easement, including 103.4 acres of southern mixed chaparral habitats.

Impact-BI-16d (non-native grassland)

Implementation of the proposed project has the potential to result in the loss of non-native grassland. The following mitigation is proposed:

The Biological Easement and RMP (see **M-BI-1** and **M-BI-2**, above), which conserves 359.0 acres of habitat in an on-site open space easement, including 10.2 acres of non-native grassland or similar habitats.

Impact-BI-16e (extensive agricultural land)

Implementation of the proposed project has the potential to result in the loss of extensive agricultural land. The following mitigation is proposed:

The Biological Easement and RMP (see **M-BI-1** and **M-BI-2**, above), which conserves 359.0 acres of habitat in an on-site open space easement. Approximately 25.1 acres of habitat is required for impacts to extensive agriculture, which will be mitigated through excess acres of Diegan coastal sage scrub conserved.

Impact-BI-17 (special-status wetland/jurisdictional communities)

Implementation of the proposed project has the potential to result in the permanent loss of 0.1 acres of special-status wetland/jurisdictional communities, including Southern coast live oak riparian forest and non-wetland drainages.

Impact-BI-17a (Southern coast live oak riparian forest)

Implementation of the proposed project has the potential to result in the permanent loss of 0.1 acre of Southern coast live oak riparian forest. The following mitigation is proposed:

See **M-BI-5**, above, which describes the restoration or avoidance requirements would result in restoration of 0.3 acre of southern coast live oak riparian forest or avoidance of impacts.

M-BI-12 See COA BIO No. 19, above, which requires impacts to waters of the U.S. and state comply with state and federal regulations and obtain the appropriate agency permits.

Impact-BI-17b (non-wetland drainages)

Implementation of the proposed project has the potential to result in the permanent loss of non-wetland drainages. The following mitigation is proposed:

The Biological Easement and RMP (see **M-BI-1** and **M-BI-2**, above), which conserves 359.0 acres of habitat in an on-site open space easement, including non-wetland drainages.

See **M-BI-12**, above.

Impact-BI-18 (jurisdictional waters, short-term)

Implementation of the proposed project has the potential to result in indirect short-term impacts to jurisdictional waters, including wetlands during construction. The following mitigation is proposed:

See **M-BI-9**, above.

Impact-BI-19 (jurisdictional waters, long-term)

Implementation of the proposed project has the potential to result in indirect long-term impacts to jurisdictional waters within on-site open space and adjacent native habitat areas following construction. The following mitigation is proposed:

See **M-BI-10**, above.

Impact-BI-20 (special-status vegetation communities, short-term)

Implementation of the proposed project has the potential to result in indirect short-term impacts to special-status vegetation communities within on-site open space and adjacent native habitat areas during construction. The following mitigation is proposed:

See **M-BI-9**, above.

Impact-BI-21 (special-status vegetation communities, long-term)

Implementation of the proposed project has the potential to result in indirect long-term impacts to special-status vegetation communities within on-site open space and adjacent native habitat areas during construction. The following mitigation is proposed:

See **M-BI-10**, above.

Impact-BI-22 (wildlife movement)

Implementation of the proposed project has the potential to adversely affect wildlife movement along Gomez Creek due to increased traffic. The following mitigation is proposed:

M-BI-13 See COA BIO No. 22, above, which requires installation of a traffic signal light at the main entrance to the project, installation of wire game management directive fencing to preclude wildlife from crossing at-grade across SR 76, and a wildlife camera monitoring program to provide a means to implement adaptive management of these measures.

Impact-BI-23 (nesting birds)

Implementation of the proposed project has the potential to adversely affect bird nesting due to mass grading. The following mitigation is proposed:

M-BI-14 See COA BIO No. 21, above, which requires pre-construction surveys in suitable nesting habitat if any grading occurs between March 15 and August 31. Active nests shall be given appropriate buffers.

2.3.5 Conclusion

The following discussion provides the significance conclusion reached after application of the mitigation measures in each of the above impact analyses, and the level of impact that would result after implementation of the project.

Impact-BI-1 (Arroyo Toad)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-1**. Implementation of **M-BI-1** through **M-BI-4** would reduce the impact to arroyo toad through the preservation and management of arroyo toad habitat within the biological open space. These measures conserve and manage potential toad habitat, coupled with the construction surveys and monitoring for avoidance of impacts, with ESA Consultation, should toad be present, ensure that mitigation would be achieved in accordance with the County Guidelines for the arroyo toad on-site. The mitigation location is appropriate as part of a viable open space preserve with long term management and as an area that significantly contributes to the resources impacted by the project. Implementation of this mitigation measure will reduce significant impacts to less than significant.

Impact-BI-2 (Southwestern Willow Flycatcher and Least Bell's Vireo)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-2**. Implementation of **M-BI-1** and **M-BI-6** would reduce the impact to southwestern willow flycatcher and least Bell's vireo through the preservation and management of suitable habitat within the biological open space and restoration requirements for unavoidable impacts. These measures conserve and manage potential habitat, coupled with monitoring for avoidance of impacts and restoration for unavoidable impacts, ensure that mitigation would be achieved in accordance with the County Guidelines for these species. The mitigation location is appropriate as part of a viable open space preserve with long term management and as an area that significantly contributes to the resources impacted by the project. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-3 (California Gnatcatcher)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-3**. Implementation of **M-BI-1** and **M-BI-2** would reduce the impact to California gnatcatcher through the preservation and management of suitable habitat within the biological open space. These measures conserve and manage potential habitat, coupled with avoidance of impacts to suitable habitat during the breeding season and monitoring for avoidance of impacts, ensure that mitigation would be achieved in accordance with the County Guidelines for these species. The mitigation location is appropriate as part of a viable open space preserve with long term management and as an area that significantly contributes to the resources impacted by the project. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-4 (Cactus Wren)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-4**. Implementation of **M-BI-1**, **M-BI-2**, **M-BI-7**, and **M-BI-8** would reduce the impact to cactus wren through the preservation, revegetation, and management of suitable habitat within the biological open space. These measures conserve and manage potential habitat, coupled with avoidance of impacts to suitable habitat during the breeding season and monitoring for avoidance of impacts, ensure that mitigation would be achieved in accordance with the County Guidelines for these species. The mitigation locations will be appropriate as part of a viable open space preserve with long term management and as an area that significantly contributes to the resources impacted by the project. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-5 through Impact-BI-8 (Other Special-Status Wildlife Species)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-5** through **Impact-BI-8**. Implementation of **M-BI-1**, **M-BI-2**, and **M-BI-5** would reduce the habitat loss impact to County Group I species, including southern California rufous-crowned sparrow, golden eagle, white-tailed kite, turkey vulture, northern harrier, two-striped garter snake, yellow, warbler, and other riparian species; and County Group II Species, including Coastal western whiptail, northern red-diamond rattlesnake, Blainville's horned lizard, orange-throated whiptail, Northwestern San Diego pocket mouse, and San Diego desert woodrat. Impacts would be reduced through the preservation and management of suitable habitat within the biological open space. These measures conserve and manage potential habitat, coupled with monitoring for avoidance of impacts, ensure that mitigation would be achieved in accordance with the County Guidelines for these species. The mitigation location is appropriate as part of a viable open space preserve with long term management and as an area that significantly contributes to the resources impacted by the project. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-9 and Impact-BI-10 (Special-Status Plant Species and Vegetation – Indirect Impacts)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-9** and **Impact-BI-10**. Implementation of **M-BI-9** reduces short-term indirect impacts to special-status plant species and vegetation, through temporary construction fencing and presence of a Biological Monitor during construction activities to ensure that direct impacts are minimized. **M-BI-10** would reduce the long-term impact to special-status plant species and vegetation through long-term open space management, a limited building zone easement and open space signs and fencing that will limit the degradation of biological conditions on the edge of the development so that mitigation would be achieved in accordance with the County Guidelines for these species. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-11 and Impact-BI-12 (Special-Status Wildlife Species – Indirect Impacts)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-11** and **Impact-BI-12**. Implementation of **M-BI-9** reduces short-term indirect impacts to special-status wildlife species, through temporary construction fencing and presence of a Biological Monitor during construction activities to ensure that direct impacts are minimized. **M-BI-10** would reduce the long-term impact to special-status wildlife species through long-term open space management, a limited building zone easement and open space signs and fencing that will limit the degradation of biological conditions on the edge of the development so that mitigation would be achieved in accordance with the County Guidelines for these species. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-13 and Impact-BI-14 (Raptor Roosting and Nesting Habitat – Indirect Impacts)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-13** and **Impact-BI-14**. Implementation of **M-BI-9** reduces short-term indirect impacts to raptor roosting and nesting habitat, through temporary construction fencing and presence of a Biological Monitor during construction activities to ensure that direct impacts are minimized. **M-BI-10** would reduce the long-term impact to raptor roosting and nesting habitat through long-term open space management, a limited building zone easement and open space signs and fencing that will limit the degradation of biological conditions on the edge of the development so that mitigation would be achieved in accordance with the County Guidelines for these species. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-15 (Off-Site Waterline and Sewer Line)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-15**. Implementation of **M-BI-11** would reduce the impact to potential nesting special-status birds along the off-site impact areas, including California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. This measure includes pre-construction surveys within suitable habitat adjacent to the impact areas so that mitigation would be achieved in accordance with the County Guidelines for these species. Implementation of this mitigation measure will reduce significant impacts to less than significant.

Impact-BI-16 (Special-Status Upland Vegetation Communities)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-16**. Implementation of **M-BI-1**, **M-BI-2**, and **M-BI-7** would reduce the impact to special-status upland vegetation communities, including southern cactus scrub, Diegan coastal sage scrub, granitic southern mixed chaparral, non-native grassland, and extensive agriculture through the preservation, revegetation, and management of these vegetation communities within the biological open space. These measures conserve and manage vegetation communities, coupled with monitoring for avoidance of impacts, ensure that mitigation would be achieved in accordance with the County Guidelines for these species. The mitigation locations are appropriate as part of a viable open space preserve with long term management and as an area that significantly contributes to the resources impacted by the project. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-17 (Special-Status Wetland/Jurisdictional Communities)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-17**. Implementation of **M-BI-1**, **M-BI-2**, and **M-BI-12**, would reduce the impact to jurisdictional resources, including southern coast live oak riparian forest, through the avoidance, preservation, revegetation, and management of these resources within the biological open space. Additionally, these measures require compliance with appropriate state and federal regulations to obtain agency permits for impacts to these areas. These measures conserve and manage the jurisdictional resources/vegetation communities, coupled with monitoring for avoidance of impacts, ensure that mitigation would be achieved in accordance with the County Guidelines for these species. The mitigation location is appropriate as part of a viable open space preserve with long term management and as an area that significantly contributes to the resources impacted by the project. Implementation of this mitigation measure will reduce significant impacts to less than significant.

Impact-BI-18 and Impact-BI-19 (Jurisdictional Waters – Indirect Impacts)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-18** and **Impact-BI-19**. Implementation of **M-BI-9** reduces short-term indirect impacts to jurisdictional waters, through temporary construction fencing and presence of a Biological Monitor during construction activities to ensure that direct impacts are minimized. **M-BI-10** would reduce the long-term impact to jurisdictional waters through long-term open space management, a limited building zone easement and open space signs and fencing that will limit the degradation of biological conditions on the edge of the development so that mitigation would be achieved in accordance with the County Guidelines for these species. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-20 and Impact-BI-21 (Special-Status Vegetation Communities – Indirect Impacts)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-20** and **Impact-BI-21**. Implementation of **M-BI-9** reduces short-term indirect impacts to special-status vegetation communities, through temporary construction fencing and presence of a Biological Monitor during construction activities to ensure that direct impacts are minimized. **M-BI-10** would reduce the long-term impact to special-status vegetation communities through long-term open space management, a limited building zone easement and open space signs and fencing that will limit the degradation of biological conditions on the edge of the development so that mitigation would be achieved in accordance with the County Guidelines for these species. Implementation of these mitigation measures will reduce significant impacts to less than significant.

Impact-BI-22 (Wildlife Movement)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-22**. Implementation of **M-BI-13** would reduce the impact to wildlife movement through installation of a traffic signal light, resulting in reduced vehicle travel speeds which have been shown to reduce wildlife mortality. Wildlife directive fencing will also be installed reducing the number of wildlife at-grade crossing of SR 76 and therefore reducing the incidence of wildlife-vehicle collisions. Finally, a wildlife camera monitoring program will provide data to adaptively manage the wildlife fencing to ensure effectiveness.

Impact-BI-23 (Nesting Birds)

Rationale: Alterations in the project have been required that avoid or substantially lessen **Impact-BI-23**. Implementation of **M-BI-14** would reduce the impact to nesting birds through preconstruction nesting bird surveys during the nesting season, including within 300 to 500 feet of development; and monitoring for avoidance of impacts, so that mitigation would be achieved in accordance with the County Guidelines for these species. Implementation of this mitigation measure will reduce significant impacts to less than significant.

Summary

This analysis has concluded that there are 25 significant impacts to biological resources, including short- and long-term effects and direct and indirect impacts. No federal- or state-listed plant or animal species would be affected, but a number of County special-status species would be affected. Table 2.3-4 provides a summary of project off-site impacts, Table 2.3-9 (Summary of Mitigation Measures) provides a summary of project impacts and associated mitigation measures, and Table 2.3-8 summarizes the impacts, mitigation, and open space acreages.

Significant impacts to special status species (**Impact-BI-1** through **Impact-BI-8**, **Impact-BI-11** through **Impact-BI-15**, and **Impact-BI-23**) and wildlife movement (**Impact-BI-22**) would be fully mitigated by mitigation measures **M-BI-1** through **M-BI-11**, **M-BI-13**, and **M-BI-14**. These measures include:

- Preservation of 359.0 acres of biological open space to be managed in perpetuity and preparation of a Resource Management Plan (RMP).
- Conduct preconstruction surveys for each phase of grading, to determine if any federal-, state-, or County-listed sensitive species would be affected. No construction would be allowed during the breeding season unless it is determined that no sensitive species are present.
- Implement an on-site revegetation plan or demonstrate equal or greater benefit to the cactus wren to mitigate impacts to the cactus wren and be in compliance with the Resource Protection Ordinance.
- A biological monitoring shall be on site during any clearing, grubbing, and grading to insure that impacts to sensitive species and habitats would be avoided or minimized. Temporary fencing would also be used to delineate areas of avoidance.
- Establish a Limited Building Zone (LBZ) easement.
- Place open space signage, fencing, and walls to protect sensitive habitat, and establish the easement for preservation of native vegetation on site.
- Do not allow construction during the breeding season within 50 feet of non-raptor birds' habitat, 300 feet for least Bell's vireo, and 500 feet of raptor nests, unless a preconstruction survey determines that these species are not in these areas.
- Installation of a traffic signal light on SR 76 at the project entrance, installation of wildlife directive fencing along Gomez Creek to minimize at-grade crossings of SR 76, and implement a wildlife camera monitoring program to provide information to adaptively manage the directive fencing, as-needed.

Significant impacts to sensitive habitats (**Impact-BI-9**, **Impact-BI-10**, and **Impact-BI-16** through **Impact-BI-21**) would be fully mitigated by mitigation measures **M-BI-1**, **M-BI-2**, **M-BI-5**, **M-BI-7**, **M-BI-9**, **M-BI-10**, and **M-BI-12**. These measures include:

- Preservation of 359.0 acres of biological open space to be managed in perpetuity and preparation of a RMP.
- Follow all required protocols to obtain any needed permits (4d for coastal sage scrub; ACOE, CDFW, RWQCB, and County permits for impacts to wetlands/jurisdictional waters).
- Implement a revegetation plan and/or an off-site conservation area for southern cactus scrub and southern coast live oak riparian forest.
- Implement measures to reduce short-term and long-term indirect impacts, as noted above.

Through preservation of sensitive habitat lands on site (a) the most sensitive habitats would be mitigated at a higher ratio while more common habitats would be mitigated at a lower ratio; (b) mitigation land will be of like kind (or "up-tier") in value; (c) the biological open space will be managed in perpetuity, and (d), restoration and/or creation of habitats would be on site and would contribute to a naturally functioning ecosystem.

Through implementation of the mitigation measures listed above, all impacts to biological resources would be reduced to below a level of significance.

Table 2.3-1
Vegetation Communities and Land Cover Types

Habitat Types/Vegetation Communities	Code[1]	Existing Acreage
Upland Scrub		
Southern cactus scrub*	N/A	4.6
Diegan coastal sage scrub*	32500	149.1
Disturbed Diegan coastal sage scrub*	32500	31.0
	Subtotal	*184.7*
Upland Woodland and Savannah		
Scrub oak chaparral*	37900	7.9
Granitic southern mixed chaparral*	37121	85.9
Mafic southern mixed chaparral	37122	30.2
Coast live oak woodland*	71160	0.4
Disturbed granitic southern mixed chaparral*	37120	0.2
	Subtotal	*124.6*
Upland Grassland		
Valley needlegrass grassland*	42110	1.2
Non-native grassland*	42200	27.6
	Subtotal	*28.8*

Table 2.3-1
Vegetation Communities and Land Cover Types

Habitat Types/Vegetation Communities	Code[1]	Existing Acreage
Riparian Scrub		
Mulefat scrub*	63310	*1.7*
Riparian Woodlands/Forests		
Southern cottonwood–willow riparian forest*	61330	6.9
Sycamore alluvial woodland*	62100	4.3
Southern coast live oak riparian forest*	61310	10.4
Disturbed southern coast live oak riparian forest*	61310	0.7
Subtotal		*22.3*
Unvegetated Waters		
Non-vegetated channel*	64200	<0.1
Non-natural Land Covers		
Agriculture (Intensive)	18200	17.4
Agriculture (Extensive)	18300	58.8
Developed	N/A	2.5
Disturbed	11300	4.5
Orchard	18100	68.3
Subtotal		*151.5*
Total		**513.5**

Source: Appendix E
1 Holland (1986) as modified by Oberbauer et al. (2008).
* Considered special-status by the County (2010).

Table 2.3-2
Jurisdictional Delineation Summary

Vegetation Community/Waters Type	Jurisdiction		Total Acres
	ACOE, RWQCB, CDFW, County (acres)	*CDFW, County (acres)*	
Mulefat Scrub	1.27	0.42	1.70
Southern coast live oak riparian forest	0.47	9.97	10.44
Disturbed southern coast live oak riparian forest	—	0.72	0.72
Southern cottonwood–willow riparian forest	6.85	—	6.85
Sycamore alluvial woodland	—	4.26	4.26
Wetlands Subtotal	*8.59*	*15.38*	*23.97*
Non-wetland drainage	0.86[1]	0.28[2]	1.14
Non-vegetated channel	0.04	—	0.04
Jurisdictional Total	**9.49**	**15.66**	**25.15**

Source: Appendix E
Notes:
1 These non-wetland waters are only under the jurisdiction of ACOE, RWQCB, and CDFW and do not meet the requirements of a County RPO wetland.
2 These non-wetland waters are only under the jurisdiction of CDFW and do not meet the requirements of a County RPO wetland.

Table 2.3-3
Impacts to Non-Jurisdictional Vegetation Communities

Habitat Types/ Vegetation Communities	Existing Acreage	Impacts – Limits of Grading (Acres)	Impacts – Fire Buffer and Waterline (Acres)[1]	Total Impacts (Acres)[2]	Biological Open Space Mitigation (Acres)	Impact Neutral (Acres)
Upland Scrub						
Southern cactus scrub*	4.6	2.5	0.2	2.7	1.9	—
Diegan coastal sage scrub*	149.1	24.6	2.4	27.0	114.0	8.1
Disturbed Diegan coastal sage scrub*	31.0	5.3	0.8	6.1	24.0	0.9
Subtotal	*184.7*	*32.4*	*3.4*	*35.8*	*139.9*	*9.0*
Upland Woodland and Savannah						
Scrub oak chaparral*	7.9	—	—	—	5.7	2.3
Granitic southern mixed chaparral*	85.9	—	2.3	2.3	73.0	10.6
Mafic southern mixed chaparral	30.2	—	—	—	30.2	—
Coast live oak woodland*	0.4	—	—	—	0.2	0.2
Disturbed southern mixed chaparral*	0.2	—	—	—	0.2	—
Subtotal	*124.6*	—	*2.3*	*2.3*	*109.3*	*13.1*
Upland Grassland						
Valley needlegrass grassland*	1.2	—	—	—	1.2	—
Non-native grassland*	27.6	19.8	0.5	20.3	3.5	3.8
Subtotal	*28.8*	*19.8*	*0.5*	*20.3*	*4.7*	*3.8*
Non-natural Land Covers						
Agriculture (Intensive)	17.4	17.1	0.2	17.3	—	—
Agriculture (Extensive)	58.8	47.7	2.3	50.0	1.9	7.0
Developed	2.5	2.4	—	2.4	—	—
Disturbed Habitat	4.5	1.7	0.6	2.3	1.9	0.3
Orchard	68.3	24.1	0.7	24.0	42.0	2.2
Subtotal	*151.5*	*93.0*	*3.8*	*95.1*	*45.8*	*9.5*
Total[2]	**489.6**	**145.2**	**10.0**	**154.4**	**299.7**	**35.4**

Source: Appendix E
Notes:
* Considered special-status by the County (2010).
1 The fire buffer acreages listed here are limits of the fire boundary outside of the limits of grading.
2 Totals may not add due to rounding.

Table 2.3-4
Off-Site Impacts

Habitat Types/ Vegetation Communities	Cole Grade Road (Acres)	Waterline (Acres)	Sewer Line (Acres)	Total Impacts
Diegan coastal sage scrub	—	0.1	—	0.1
Non-native grassland	—	—	<0.1	<0.1
Agriculture (Intensive)	—	0.5	—	0.5
Agriculture (Extensive)	—	0.1	—	0.1

Table 2.3-4
Off-Site Impacts

Habitat Types/ Vegetation Communities	Cole Grade Road (Acres)	Waterline (Acres)	Sewer Line (Acres)	Total Impacts
Developed	1.7	—	5.4	7.1
Disturbed Habitat	—	0.9	<0.1	0.9
Orchard	0.9	—	—	0.9
Total	**2.6**	**1.6**	**5.4**	**9.6**

Table 2.3-5
Impacts to Waters and Wetlands of the U.S./State/County

Vegetation Communities	Existing Acreage	Impacts – Limits of Grading, Fire Buffer, and Waterline (Acres)	Biological Open Space Mitigation (Acres)	Impact Neutral (Acres)
ACOE/RWQCB/CDFW/County				
Mulefat scrub	1.27	—	—	1.27
Southern coast live oak riparian forest	0.47	—	—	0.47
Southern cottonwood–willow riparian forest	6.85	—	—	6.85
Non-vegetated channel	0.04	—	—	0.04
Subtotal	*8.63*	—	—	*8.63*
ACOE/RWQCB/CDFW				
Non-wetland drainage[1]	0.86	—	0.66	0.20
CDFW and County				
Mulefat Scrub	0.42	—	—	0.42
Disturbed southern coast live oak riparian forest	0.72	—	—	0.72
Southern coast live oak riparian forest	9.90	0.10	—	9.80
Sycamore alluvial woodland	4.26	—	—	4.26
Subtotal	*15.30*	*0.10*	—	*15.20*
CDFW Only				
Non-wetland drainage[2]	0.28	0.03	0.23	0.02
Total Jurisdictional Wetland and Waters	**23.93**	**0.13**	**0.89**	**23.83**

Source: Appendix E
Notes:
1 Because this is a non-wetland drainage, activities within the fire buffer area will not impede the functions of the channel and are not considered an impact.
2 These areas are overlaid on the existing vegetation and are not included in the overall acreage.

Table 2.3-6
Projects with Potential Cumulative Impacts to Biological Resources

Map Key	Identifying Project No.	Project Name	Assessor's Parcel Number (APN)/ Location	Significant Issues	Area (acres)	Proposed Improvements
Projects Within Cumulative Study Area for Biological Resources With No Potential for Significant Cumulative Biological Impacts						
26	MUP 07-017	Vista Towers	109-392-50-00	None	N/A	60-foot high wireless telecommunications facility designed as a faux pine tree consisting of 36 panel antennas and possibly 3 microwave dish antennas. A 6-foot high wall with solid metal gates will surround all equipment.
36	AD 07-009	Sotelo Administrative Permit	108-100-44-00	None	11.83	Clearing of approximately 6.0 acres of Limited Agricultural land for expansion of an ornamental flower operation.
51	AD 05-047	Panes Administrative Permit	108-441-01-00	None	3.00	Administrative Agricultural Clearing Permit to clear 3.0 acres of brush for an avocado grove.
77	MUP 08-023	Meadowood Wastewater Treatment Plant	108-122-11-00	Aesthetics, Air Quality	2.91	Wastewater Treatment Facility consisting of 9 structures bordering SR76.
96		The Pala Wastewater Plant			1.8	Plans to rehabilitate the treatment plant have been proposed to allow for the construction of 9,630 additional feet of sewer line and a single lift station. The project would allow connection to approximately 50 additional residents that are currently served by underground septic systems.
88		Pala Casino	Pala road and Pala Mission road		N/A	expanded 20,000 sq. ft.
Projects Within Cumulative Study Area for Biological Resources With Potential for Significant Cumulative Biological Impacts						
76	TM 5354 SP 0401 GPA 04-02 R 04-04 S 04-007	Meadowood	108-120-54-00	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards, Noise, Transportation/ Traffic	390.00	Residential development, including:355 SFR, 489 MFR, with densities from 3.5 to 19.9 DU/acre with designation of a site for a future elementary school (or up to 886 DUs without a school), 6 private parks, 4 miles of trails, community facilities and infrastructure.

Table 2.3-6
Projects with Potential Cumulative Impacts to Biological Resources

Map Key	Identifying Project No.	Project Name	Assessor's Parcel Number (APN)/ Location	Significant Issues	Area (acres)	Proposed Improvements
79	SPA 03-008, GPA 03-004, R 03-014, VTM 5338 RPL7, S 07-031	Campus Park	108-120-47-00	Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Noise	416.10	751 single- and multi-family homes, a Town Center with village commercial and support facilities, neighborhood parks, an active sports park, office professional uses, an equestrian/trial staging area, infrastructure and biological preservation.
85	PDS2012-3800-12-001 (GPA), PDS2012-3810-12-001 (SP), PDS2012-3600-12-003 (REZ), PDS2012-3100-5571 (TM), PDS2012-3100-5572	Lilac Hills Ranch	West Lilac Road and Rodriguez Road	Transportation, Ag, Bio, Cultural, Air Quality, Hazards, Visual, Noise	608	Project would include: 90,000 square feet of commercial, office, and retail; 1,746 residential units that would include some detached age-restricted residential units; necessary facilities and amenities to serve the senior population.
87	SPA 05-001, GPA 05-003, REZ 05-005, TM 5424	Campus Park West	East of I-15; North and South of SR 76			Development of 23 lots which will include a mixture of uses including light industrial, commercial and multi-family dwelling units. Max of 283 dwelling units.
89	PDS2000-3300-00-030	Shadow Run Ranch, LLC	111-070-13-00	Bio	248	The project would result in development of 44 residential lots, one biological open space, one agricultural open space lot, and one recreational open space lot.
95		The Pala Raceway			240	The project would result in construction of 12 professionally designed tracks, 300 campsites, a clubhouse, a restaurant; a 3.0-acre fishing pond, a BMX track, and a bike wash for all park visitors.
98	PDS2014-AD-14-025	Pala Solar Energy Project	110-072-26 and 110-370-01		56	The project includes development and operation of a photovoltaic (PV) solar facility to be located on SDG&E owned property.

Note: Pala Solar is located at the SDG&E plant.

Table 2.3-7
Approximate Impacts to Habitat/Vegetation Types

Habitat/ Vegetation Type	Project Names and Approximate Impact Acreages							
	Campus Park	*Campus Park West*	*Lilac Hills Ranch*	*Meadowood*	*Shadow Run Ranch*	*Pala Solar Energy Project*	*Total Without Warner Ranch*	*Total With Warner Ranch*
Chaparral			54	2			57	59
Coastal Sage Scrub	47	2	20	14	4	1	41	77
Grassland	48	43		15		2	60	81
Oak Woodland	1	0	1		3		4	4
Riparian		12	2				14	14
Wetland	20		0	3			3	3
Open Water			1				1	1
Agriculture		5	367		109		481	573
Eucalyptus		1	1				2	2
Disturbed		41	35			3	79	81
Developed		11	23			3	37	39
Total	**116**	**115**	**504**	**34**	**116**	**9**	**779**	**934**

Table 2.3-8
Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas

Habitat Types/Vegetation Communities	Existing Acreage	Total Impacts (Ac.)[1,2]	Mitigation Ratio	Mitigation Required (Ac.)	Biological Open Space Mitigation (Ac.)	Impact Neutral Open Space (Ac.)	Off-site and/or On-site Mitigation (Ac.)
Non-Jurisdictional Vegetation Communities							
Upland Scrub							
Southern cactus scrub	4.6	2.7	2:1	5.4	1.9	—	On-site restoration or off-site conservation and management of 3.5 acres of cactus wren occupied cactus scrub.

Table 2.3-8
Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas

Habitat Types/Vegetation Communities	Existing Acreage	Total Impacts (Ac.)[1,2]	Mitigation Ratio	Mitigation Required (Ac.)	Biological Open Space Mitigation (Ac.)	Impact Neutral Open Space (Ac.)	Off-site and/or On-site Mitigation (Ac.)
Diegan coastal sage scrub	149.1	27.1[2]	2:1	54.2	114.0	8.1	
Disturbed Diegan coastal sage scrub	31.0	6.1	2:1	12.2	24.0	0.9	
Subtotal	*184.7*	*35.9*	—	*71.6*	*139.9*	*9.0*	
Upland Woodland and Savannah							
Scrub oak chaparral	7.9	—	—	—	5.7	2.3	
Granitic southern mixed chaparral	85.9	2.3	0.5:1	1.1[3]	73.0	10.6	
Mafic southern mixed chaparral	30.2	—	—	—	30.2	—	
Coast live oak woodland	0.4	—	—	—	0.2	0.2	The 0.2 acre in open space will be counted toward mitigation for impacts to the oak root zone.
Disturbed southern mixed chaparral	0.2	—	—	—	0.2	—	
Subtotal	*124.6*	*2.3*	—	*1.1*	*109.3*	*13.1*	
Upland Grassland							
Valley needlegrass grassland	1.2	—	—	—	1.2	—	This will be counted toward mitigation for non-native grassland impacts.
Non-native grassland	27.6	20.3	0.5:1	10.2	3.5	3.8	The remaining 6.7 acres will be mitigated through the on-site preservation of 1.2 acres of valley needlegrass grassland and 5.5 acres of excess open (like-functioning) coastal sage scrub (including disturbed).
Subtotal	*28.8*	*20.3*	—	*10.2*	*4.7*	*3.8*	
Non-Natural Land Covers							
Agriculture (Intensive)	17.4	17.8[2]	None	—	<0.01	<0.01	

Table 2.3-8
Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas

Habitat Types/Vegetation Communities	Existing Acreage	Total Impacts (Ac.)[1,2]	Mitigation Ratio	Mitigation Required (Ac.)	Biological Open Space Mitigation (Ac.)	Impact Neutral Open Space (Ac.)	Off-site and/or On-site Mitigation (Ac.)
Agriculture (Extensive)	58.8	50.1[2]	0.5:1	25.1	1.9	7.0	This impact will be mitigated through the on-site preservation of open (like-functioning) coastal sage scrub (including disturbed).
Developed	2.5	9.5[2]	None	0	<0.01	<0.01	
Disturbed	4.5	3.0[2]	None	0	1.9	0.3	
Orchard	68.3	24.9	None	0	42.0	2.2	
Subtotal	*151.5*	*105.3*	—	*25.0*	*45.9*	*9.5*	
Total Non-jurisdictional Vegetation Communities	**489.6**	**163.8**	**—**	**108.2**	**299.7**	**35.4**	**—**
Jurisdictional Waters and Wetlands							
ACOE/RWQCB/CDFW/County							
Mulefat Scrub	1.27	—	—	—	—	1.27	
Southern coast live oak riparian forest	0.47	—	—	—	—	0.47	
Southern cottonwood-willow riparian forest	6.85	—	—	—	—	6.85	
Non-vegetated channel	0.04	—	—	—	—	0.03[4]	
Subtotal	*8.63*	—	—	—	—	*8.62*	
ACOE/RWQCB/CDFW							
Non-wetland drainage[4]	0.86	—	—	—	0.66	0.20	
CDFW and County							
Mulefat Scrub	0.42	—	—	—	—	0.42	
Disturbed southern coast live oak riparian forest	0.72	—	—	—	—	0.72	

Table 2.3-8
Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas

Habitat Types/Vegetation Communities	Existing Acreage	Total Impacts (Ac.)[1,2]	Mitigation Ratio	Mitigation Required (Ac.)	Biological Open Space Mitigation (Ac.)	Impact Neutral Open Space (Ac.)	Off-site and/or On-site Mitigation (Ac.)
Southern coast live oak riparian forest	9.90	0.10	3:1	0.30	—	9.80	The impact will be avoided in final design or mitigated through 2:1 restoration or enhancement and 1:1 creation
Sycamore alluvial woodland	4.26	—	—	—	—	4.26	
Subtotal	*15.30*	*0.10*	—	*0.30*	*0.66*	*15.20*	—
CDFW Only							
Non-wetland drainage[5]	0.28	0.03	1:1	0.03	0.23	0.02	0.03 acre will be mitigated through creation/ enhancement of wetland habitat
Total Jurisdictional Wetland and Waters	**23.93**	**0.13**	—	**0.33**	**0.89**	**23.83**	—
Other							
Oak Root Zone	32.9[6]	0.4[7]	3:1	1.2	N/A	N/A	0.2 acre of coast live oak woodland will be applied; 1.0 acre will be mitigated through creation of oak woodland habitat
Total	**513.5**	**163.9**	—	**109.4**	**299.7**	**59.3**	—

Source: See Appendix E.
Notes:
1 Totals may not add due to rounding.
2 Includes the off-site impacts.
3 Required mitigation for the portions of this vegetation community located in the oak root zone category is included in the mitigation for the oak root zone, which requires an equal to or higher mitigation ratio.
4 0.01 acre of non-vegetated channel is located within the fire buffer and is not counted toward open space.
5 Non-wetland drainages are mapped as an overlay in relation to the vegetation community mapping and therefore are not added in the cumulative total acreages of the site.
6 This layer is mapped as an overlay in relation to the vegetation community mapping is not counted toward the total acreage.
7 Acres of vegetation communities included in the oak root zone category are not counted in the vegetation communities and land cover type impacts listed above.

Table 2.3-9
Summary of Mitigation Measures

Proposed Mitigation	Level of Significance After Mitigation	Guideline Number(s)
Impact-BI-1 – Impacts to 18.3 acres of potential aestivation habitat for potential future populations of arroyo toad.	Less than significant	
M-BI-1: The project will preserve approximately 359.0 acres.		4.1(a), 4.1(d), 4.5(j)
M-BI-2: The open space will be managed in accordance with an RMP.		4.1(a), 4.1(d), 4.5(j)
M-BI-3: Resource Avoidance Areas including preconstruction surveys for arroyo toad.		4.1(a), 4.1(d), 4.5(j)
M-BI-4: ESA permitting and consultation, if toads are detected.		4.1(a), 4.1(d), 4.5(j)
Impact-BI-2 – Impacts to habitat for southwestern willow flycatcher and least Bell's vireo (potential on-site and occupied off-site habitat)	Less than significant	
See **M-BI-1**, above.		4.1(a), 4.5(j)
M-BI-5: The restoration or avoidance requirements (See COA BIO No. 4, above) would result in restoration of 0.3 acres of southern coast live oak riparian forest or avoidance of impacts.		4.1(a), 4.5(j)
Impact-BI-3 – Impacts to 35.9 acres of habitat for California gnatcatcher (potential on-site and off-site habitat)	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.1(a), 4.5(j)
M-BI-6: Resource Avoidance Areas/Preconstruction surveys for California gnatcatcher.		4.1(a), 4.5(j)
Impact-BI-4 – Impacts to 2.7 acres of occupied cactus wren	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.1(b), 4.5(c)
M-BI-7: Revegetation or preservation of 3.5 acres southern cactus scrub		4.1(b), 4.5(c)
M-BI-8: Resource Avoidance Areas/Preconstruction surveys for cactus wren.		4.1(b), 4.5(c)
Impact-BI-5 – Impacts to southern California rufous-crowned sparrow habitat	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.1(b)
Impact-BI-6 – Impacts to raptor foraging habitat	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.1(b), 4.1(e), 4.1(f)
Impact-BI-7 – Impacts to County Group I Species	Less than significant	
See **M-BI-1** and **M-BI-5**, above.		4.1(b)
Impact-BI-8 – Impacts to County Group II Species	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.1(c)
Impact-BI-9 – Impacts to special status plant species and vegetation, short-term	Less than significant	
M-BI-9: Biological Monitoring (see COA BIO No. 7 through No. 10, above), which will ensure all work is limited to the development boundary through temporary fencing of disturbance areas in accordance with the approved plans and a biological monitor will be on site during pre-construction and construction activities in order to monitor the clearing/grubbing activities and minimize indirect impacts to adjacent open space areas, including jurisdictional waters.		4.1(h)

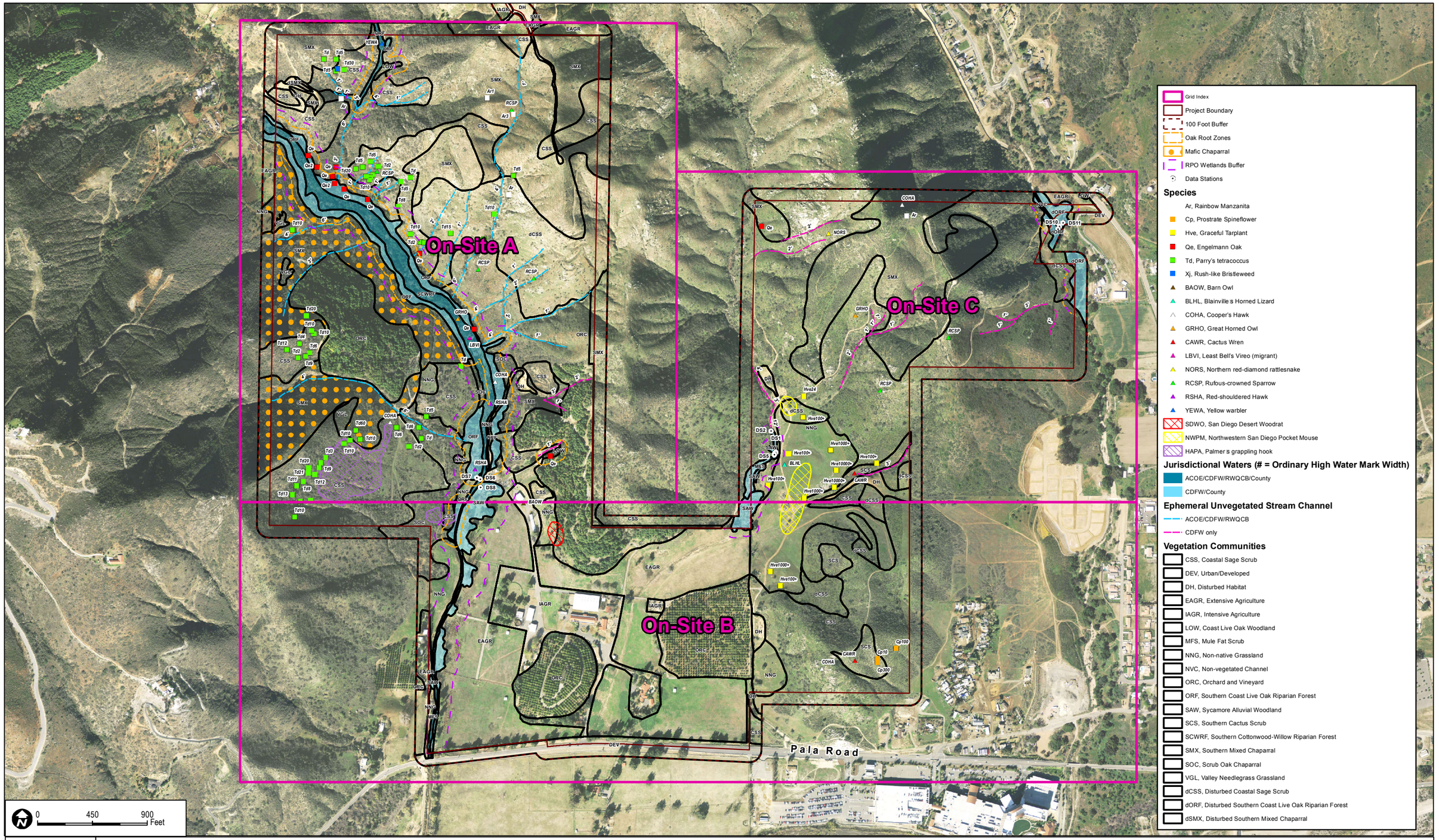
Table 2.3-9
Summary of Mitigation Measures

Proposed Mitigation	Level of Significance After Mitigation	Guideline Number(s)
Impact-BI-10 – Impacts to special status plant species and vegetation, long-term	Less than significant	
M-BI-10: RMP, Limited Building Zone Easement, Open Space Signage and Fencing/Wall, Easement Avoidance (see COA BIO No. 2 and No. 11 through No. 15, above), which provide for long-term resource management and monitoring and require that a limited building zone easement be dedicated to the County to minimize impacts adjacent to open space areas; open space easements be clearly marked with signs and fencing, as needed; and that signage and fencing be installed prior to completion of grading, including jurisdictional waters.		4.1(h)
Impact-BI-11 – Impacts to special status wildlife species, short-term	Less than significant	
See **M-BI-9**, above.		4.1(h)
Impact-BI-12 – Impacts to special status wildlife species, long-term	Less than significant	
See **M-BI-10**, above.		4.1(h), 4.1(l)
Impact-BI-13 – Impacts to nesting raptors, short-term	Less than significant	
See **M-BI-9**, above.		4.1(h), 4.1(l)
Impact-BI-14 – Impacts to nesting raptors, long-term	Less than significant	
See **M-BI-10**, above.		4.1(h), 4.1(l)
Impact-BI-15 – Off-site impacts to nesting birds	Less than significant	
M-BI-11: See COA BIO No. 16, above, which requires pre-construction surveys in suitable nesting habitat if installation of the waterline or sewer line occurs between February 15 and August 31.		4.1(h), 4.1(l)
Impact-BI-16a – Impacts to southern cactus scrub	Less than significant	
See **M-BI-1** and **M-BI-7**, above**..**		4.2(a)
Impact-BI-16b – Impacts to Diegan coastal sage scrub	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.2(a)
Impact-BI-16c – Impacts to granitic southern mixed chaparral	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.2(a)
Impact-BI-16d – Impacts to non-native grassland	Less than significant	
See **M-BI-1** and **M-BI-2**, above..		4.2(a), 4.5(c)
Impact-BI-16e – Impacts to extensive agriculture	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.2(a)
Impact-BI-17a – Impacts to southern coast live oak riparian forest	Less than significant	
See **M-BI-5**, above.		4.2(a), 4.2(b), 4.3
M-BI-12: The project shall comply with all state and federal regulations and obtain appropriate agency permits.		4.3
Impact-BI-17b – Impacts to non-wetland drainages	Less than significant	
See M-BI-1, M-BI-2, and M-BI-12 above.		4.2(b), 4.3
Impact-BI-18 – Impacts to jurisdictional waters, short-term	Less than significant	
See **M-BI-9**, above.		4.2(b), 4.3
Impact-BI-19 – Impacts to jurisdictional waters, long-term	Less than significant	
See **M-BI-10**, above**.**		4.2(b), 4.3

Table 2.3-9
Summary of Mitigation Measures

Proposed Mitigation	Level of Significance After Mitigation	Guideline Number(s)
Impact-BI-20 – Impacts to special-status vegetation communities, short-term	Less than significant	
See **M-BI-9**, above.		4.2(d)
Impact-BI-21 – Impacts to special-status vegetation communities, long-term	Less than significant	
See **M-BI-10**, above.		4.2(d)
Impact-BI-22 – Impacts to wildlife movement	Less than significant	
M-BI-13: Installation of a traffic signal light on SR 76 at the project entrance, installation of wildlife directive fencing along Gomez Creek, and implement a wildlife camera monitoring program. Permanent 8-foot-tall fence shall be installed from the Gomez Creek culvert at SR 76, north, along both sides of Gomez Creek for a distance of approximately 1,000 feet on site, such that wildlife is directed toward the undercrossing. The camera monitoring will entail a digital game motion/heat triggering camera station to achieve continual coverage of the undercrossing.		4.4(b)
Impact-BI-23 – Impacts to nesting birds	Less than significant	
M-BI-14: The project shall require preconstruction nesting bird surveys if grading occurs between March 15 and August 31.		4.5(k)

Source: See Appendix E.



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SOURCE: DigitalGlobe 2008

FIGURE 2.3-1A

Biological Resources Index Map

WARNER RANCH PROJECT - ENVIRONMENTAL IMPACT REPORT

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