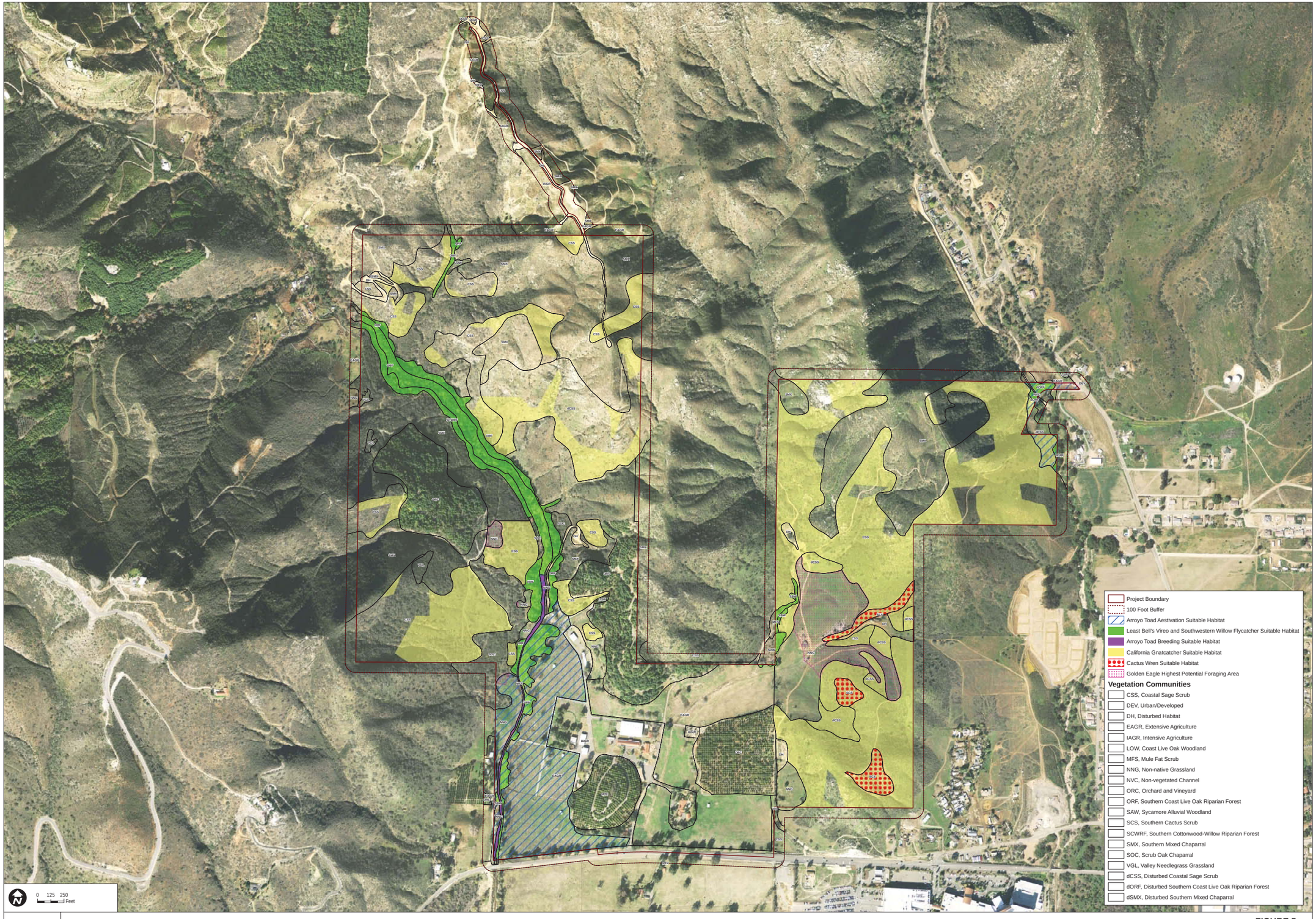

DUDEK

SOURCE: DigitalGlobe 2008

FIGURE 5c

Potential Habitat

6653-01

Warner Ranch - Biological Technical Report

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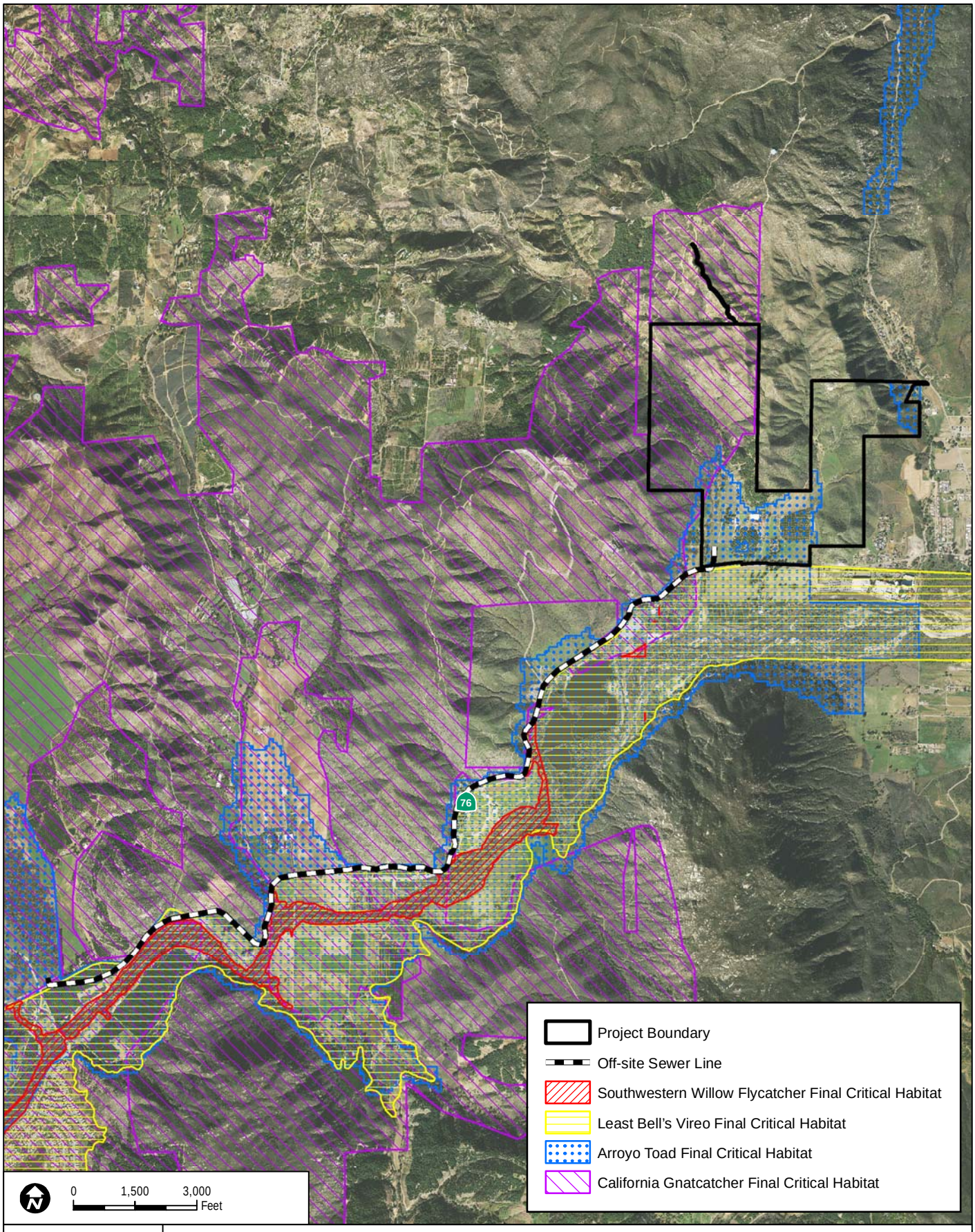

DUDEK

6653-01

SOURCE: Digital Globe 2008
USFWS 2011

FIGURE 6
Critical Habitat

Warner Ranch - Biological Technical Report

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Approximately 29.5 acres of suitable aestivation habitat was identified adjacent to suitable breeding habitat on site (Figure 5c); however most of these areas are comprised of active pasture lands within the ranch mapped as extensive agriculture. 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 5c).

Cactus Wren

Cactus wren is a USFWS Birds of Conservation Concern (BCC), CDFW SSC species, and County Group 1 species. Cactus wren was observed during the 2005 and 2010 surveys within suitable cactus scrub habitat. There are two resident pairs of cactus wren in the project area (Figure 5a). The biological resources map (Figure 5a) shows the locations. Coastal cactus wrens inhabit areas where cactus, primarily *Opuntia* species, is present. Rea and Weaver (1990) found that cactus wrens feed primarily on insects and fruit of *Opuntia* cactus, and nest almost exclusively on *Opuntia littoralis* or *Opuntia oricola*. Cactus wren nests were found in *Opuntia* tall enough to support their nests, which occur primarily on south-facing slopes or at the base of hillsides within 1,200 feet of river valleys (Rea and Weaver 1990). A study on territories in south Escondido, San Diego County, found territories between 1.8 acres (0.8 hectare) and 4.4 acres (2 hectares), with an average territory of 2.6 acres (1.3 hectares) (Rea and Weaver 1990).

Based on CNDDB records, the San Diego Bird Atlas (Unitt 2004), and Rea and Weaver (1990), there are limited populations of cactus wren along the San Luis Rey River. Currently, the CNDDB (CDFG 2011a) shows a record approximately half a mile west of the project area from 2000. The San Diego Bird Atlas shows breeding confirmed where the project area is located, but does not discuss this area in the text (Unitt 2004). The closest cluster of breeding cactus wren occurs west of the project area at southern Camp Pendleton/Fallbrook Naval Weapons Station where there are approximately 70 recorded pairs (Unitt 2004). The eastern side of the Camp Pendleton/Fallbrook Naval Weapons Station is located approximately 9.5 miles west of the project area. The 1990 data from Rea and Weaver show five populations along the San Luis Rey River, four of which were lost during the 1980s. Barbara Kus of the USGS documented four locations of cactus wren along the San Luis Rey River region east of I-15, with two locations east of the project area (in the vicinity of Pauma) and two locations west of the project area (between Rice Canyon Road and the project site). Based on genetic sampling, Kus states that 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). In addition to these occurrences, the nearest group of cactus wren is in Riverside County located near the Aguanga and Sage communities near Highway 79 South and Highway 371 (Green et al. 2011; Barr et al. 2013). This population is located approximately 13 miles northeast of the project area.

In comparison to population records in other portions of the County as identified by CNDDB, Unitt (2004), and Rea and Weaver (1990), the coastal cactus wren occurrences within the San Luis Rey River valley, east of I-15, are scattered and few in number. Several dense and numerous occurrences of coastal cactus wren are recorded at other sites including Camp Pendleton Marine Corps Base near Oceanside, Naval Weapons Station near Fallbrook, San Pasqual Valley along San Dieguito River, Lake Jennings and east along the San Diego River, along the Sweetwater River, and along the Otay River. These sites likely represent the core populations of coastal cactus wren within San Diego County. Unitt (2004) states that other San Diego County sites combined probably contribute fewer than 50 individuals; the majority of the cactus wren populations are concentrated in the areas described above.

Dudek evaluated the cactus wren-occupied southern cactus scrub habitat under the County's Sensitive Habitat Lands criteria under the RPO. Although there is limited information available for cactus wren populations along the San Luis Rey River valley, the southern cactus scrub habitat is considered Sensitive Habitat Lands under RPO, because it supports cactus wren pairs, of which there are relatively few within the San Luis Rey River valley; therefore, these pairs are likely important to the ongoing viability of the species within this area.

Southwestern Willow Flycatcher

Southwestern willow flycatcher is a federally- and state-endangered species and County Group 1 species. The southwestern willow flycatcher has a known United States breeding range in six states: Arizona, New Mexico, California, southwestern Colorado, extreme southern portions of Nevada and Utah, and possibly, western Texas. In California, its breeding range extends from the Mexican border north and inland to the City of Independence in the Owens Valley east of the Sierra Nevada, to the South Fork Kern River in the San Joaquin Valley and coastally to the Santa Ynez River in Santa Barbara County (Craig and Williams 1998). The southwestern willow flycatcher is a riparian-obligate species restricted to complex streamside vegetation. Four general habitat types are used by the southwestern willow flycatcher at its breeding sites: monotypic high-elevation willow; exotic monotypes (e.g., dense stands of tamarisk (*Tamarix* spp.) or Russian olive (*Elaeagnus angustifolius*)), especially in the desert southwest; native broadleaf-dominated riparian forest; and mixed native/exotic forests (Sogge et al. 1997). Of these, native broadleaf-dominated and mixed native/exotics are the primary habitats used by southwestern willow flycatcher in California.

Focused surveys for southwestern willow flycatcher were conducted in 2005 and 2010. There are approximately 17.3 acres of suitable habitat for southwestern willow flycatcher in the project area (Figure 5c). Both surveys were negative, and no incidental observations of this species have been made during any of the field surveys. However, 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 within southern coast live oak riparian forest and southern cottonwood-willow riparian forest; however, based on two years of negative results from focused surveys, this species has a low potential to breed in the project area. Although there is potential for the species to migrate to the site, this species tends to prefer the extensive suitable riparian habitat present within the nearby San Luis Rey River.

California Gnatcatcher

California gnatcatcher is a federally threatened species and County Group 1 species. The California gnatcatcher occurs in coastal Southern California and Baja California year-round, where it depends on a variety of arid scrub habitats. The California gnatcatcher occurs mainly on cismontane slopes (coastal side of the mountains) in Southern California, ranging from Ventura and northern Los Angeles Counties south through the Palos Verdes Peninsula to Orange, Riverside, San Bernardino, and San Diego Counties. The California gnatcatcher typically occurs in or near coastal scrub vegetation which is composed of relatively low-growing, dry-season deciduous and succulent plants. Characteristic plants of this community include California sagebrush, various species of sage (*Salvia* spp.), California buckwheat, lemonadeberry (*Rhus integrifolia*, California bush sunflower (*Encelia californica*), and cactus (e.g., *Opuntia* spp.).

Focused surveys for California gnatcatcher were conducted in 2005 and 2010 in suitable coastal sage scrub habitat and habitat sub-associations (southern cactus scrub, baccharis scrub, etc.). 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 5c). 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 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

Least Bell’s vireo is a federally- and state-endangered species and County Group 1 species. The least Bell's vireo is one of four subspecies of the Bell's vireo; its breeding range includes coastal and inland Southern California (including the western edge of Southern California's southern deserts), a small area within California's Central Valley, and extreme northern Baja California, Mexico. Although the winter range of all subspecies of Bell's vireo is not well known, it generally appears to winter from southern Baja and southern Sonora, Mexico, south along the west coast of Mexico and Central America to Honduras and casually to northern Nicaragua. It is also reported from the eastern coast of Central America from Veracruz south to Honduras

(County of Riverside 2008). Least Bell's vireos primarily occupy riverine riparian habitats along water, including dry portions of intermittent streams that typically provide dense cover within one to two meters (3.3 to 6.6 feet) of the ground, often adjacent to a complex, stratified canopy. Least Bell's vireo nesting habitats in cismontane and coastal areas include southern willow scrub, mulefat scrub, arroyo willow riparian forest edge, wild blackberry thickets, and, more rarely, cottonwood forest, sycamore alluvial woodland, and southern coast live oak riparian forest.

Focused surveys for least Bell's vireo were conducted in 2005 and 2010. There are approximately 17.3 acres of suitable habitat for least Bell's vireo in the project area (Figure 5c). Both of these surveys were negative, and based on these results, this species has a low potential to breed in the project area. However, a migrant was observed outside of the breeding season in southern cottonwood-willow riparian forest along Gomez Creek (Envira 2010) (Figure 5a). 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 and this species may occur occasionally as a migrant.

Quino Checkerspot Butterfly

Quino checkerspot butterfly is a federally-endangered species and County Group 1 species. As described in the Focused Quino Checkerspot Butterfly Survey report (Dudek 2008), the primary constituents of this species habitat are grassland and open-canopy woody plant communities with larval food plants or adult nectar plants; undeveloped areas containing grassland or open-canopy woody plant communities between habitat patches that Quino checkerspot butterfly may use for mating, basking, and movement; or prominent topographic features, such as hills and/or ridges, with an open woody or herbaceous canopy at the top (USFWS 2002). All of the survey areas in the project area contained a variety of potential Quino checkerspot butterfly adult nectar plants and dot-seed plantain, their primary larval food plant. 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 6 miles north of the project area from 1997; the largest recent cluster of occurrences is approximately 9 miles northeast 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. The Recovery Plan (USFWS 2003) describes a variety of dispersal information for checkerspot butterflies, and concludes that "long distance movements by individuals are not common, but may be sufficient to allow for infrequent between-patch exchanges up to 6 kilometers (3.7 miles)." In addition, the Recovery Plan describes Quino checkerspot butterflies as having a tendency to avoid flying over

tall objects, such as trees, buildings, and other objects over 2 meters tall, as well as under or through densely wooded areas and other types of closed canopies (USFWS 2003). Considering their dispersal distances and the locations of known populations of Quino checkerspot butterflies, the project area is unlikely to become occupied by this species.

Stephen's Kangaroo Rat

The surveys for Stephen's kangaroo rat were negative. Although protocol surveys are only good for one year, trapping results indicate that this species is not currently present on the site (Envira 2011).

There are no documented captures of Stephen's kangaroo rat in the immediate project area vicinity, and there is extremely limited potential for any 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, further trapping surveys for Stephen's kangaroo rat are not warranted unless conditions surrounding the property are drastically altered through a major fire event, as a result of which colonization potential could increase.

Hermes Copper Butterfly

Hermes copper butterfly (*Lycaena hermes*) is included in the County's 2010 guidelines as a species of consideration for projects in San Diego County that have potential 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 2010b). Fires and habitat loss have reduced populations of this species (County of San Diego 2010b). Hermes copper butterfly is not considered special-status by Federal or state agencies, but it is on CDFW's Special Animals List (CDFG 2011b). The County (2010b) 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.

Based on field notes from the rare plant surveys conducted throughout the project area, spiny redberry was observed in the western portions of the site only. In order to determine whether there is potential habitat to support Hermes copper butterfly within 150 meters (500 feet) of the proposed residential development, a habitat assessment was conducted in suitable habitat in the western portions of the project area within the 150-meter (500-foot) buffer. Surveys were not conducted within the 1.6-acre off-site waterline due to the small area of impact—0.1 acre of suitable Diegan coastal sage scrub will be impacted by the waterline installation. The remaining impacts affect agriculture and disturbed habitat. The waterline alignment follows an existing dirt road; therefore, impacts to Diegan coastal sage scrub that could support suitable Hermes copper butterfly habitat will be minimal and restricted to areas currently bordered by the dirt access road. In the project area, 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 the buffer from the proposed development; therefore, there is no suitable habitat for Hermes copper butterfly that would be impacted. No Hermes copper butterflies have been observed during wildlife or plant surveys, including focused Quino checkerspot butterfly surveys. There is a historical record near Pala (Center for Biological Diversity 2004). 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). This information leads to the determination that a species survey was not necessary and that there is no suitable habitat in the project footprint.

Golden Eagle

Golden eagles are USFWS BCC species, a fully protected species, CDFW watch list species, and County Group 1 species. They breed from late January through August with peak breeding occurring in March through July. Nest construction in Southern California occurs in fall and continues through winter (Dixon 1937). This species nests on cliffs with canyons and escarpments and in large trees (generally occurring in open habitats) and is primarily restricted to rugged, mountainous country (Garrett and Dunn 1981; Johnsgard 1990). It is common for the golden eagle to use alternate nest sites, and old nests are reused. The nests are large platforms composed of sticks, twigs, and greenery that are often 3 meters (10 feet) across and 1 meter (3 feet) high (Zeiner et al. 1990).

One golden eagle (*Aquila chrysaetos*) was observed flying over the eastern portion of the project area in October 2010 (Envira 2010). Since it was only observed flying over the project area, its location is not represented on Figure 5a. This species has not been observed during any of the other surveys in 2005, 2008, or 2010. Dudek and the County consulted directly with USFWS staff regarding the suitability of the site for golden eagle nesting and foraging. 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. The County and TAIC provided Dudek with two additional approximate historical locations of golden eagle nests that were recorded in CNDDB, one of which has subsequently been removed due to potential poaching concerns (Loy, pers. comm. 2011). The CNDDB data provided to Dudek 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 and was provided by the County; it is 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 with no large trees 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 provided by the County were searched for raptor nests. There are several raptor nests in the riparian woodland in 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 (atv) 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, located in proximity to the project area. 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 to 16,000 acres). A 10-mile radius buffer around the project area would be part of the Gregory Canyon golden eagle's estimated territory of 20 to 25 square miles.

Based on the lack of identified golden eagle nest locations within 4,000 feet of the project area and the observation of only one individual fly-over during the numerous surveys conducted on

the property, it is unlikely that the site provides substantial foraging habitat for the species. Foraging opportunities for golden eagle in the project area are limited to open or sparse habitats, to allow for their large wing-spans, that occur outside of a certain buffer from human activity. Given the proximity of the Gregory Mountain golden eagle territory, it is possible that this pair occasionally utilizes lands within the Warner Ranch property for foraging. Based on consultation with USFWS staff, an estimate of the most likely utilized foraging habitat on site was developed to include 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) (Figure 5c). There are approximately 13.6 acres of foraging habitat within the project area that meets these criteria. Based on initial USFWS input, Dudek initiated a golden eagle foraging study timed to coincide with the period of maximum golden eagle foraging (i.e., after eggs have hatched but before nestlings have fledged). Dudek conducted two of the six initially recommended surveys before terminating the survey based on updated input from senior USFWS staff. These two surveys were negative; no golden eagles were detected utilizing the project area. Final input from USFWS staff was an acknowledgment that the project would not result in take of golden eagle due to the very limited potential loss of foraging habitat, but that longer term studies should be conducted as part of the management of proposed on-site open space to better understand eagle use of the resources on site and development of management measures, if necessary (Stadtlander, pers. comm. 2013).

Special-Status Reptiles

Two-striped garter snake (*Thamnophis hammondii*) is not State or federally listed, but is a SSC and County Group 1 species. It was observed during 2005 focused gnatcatcher surveys near the upper reaches of Gomez Creek within proposed biological open space. Its location was not mapped. The two-striped gartersnake is found in coastal California in the vicinity of the southeast slope of the Diablo Range and the Salinas Valley south along the Coastal and Transverse ranges to Rio Rosario in Baja California, Mexico (NatureServe 2007). Although the two-striped gartersnake was historically common throughout this range and is the most common gartersnake in Southern California's cismontane region, it is now abundant only in eastern San Diego County (Jennings and Hayes 1994; Schwenkmeyer 2007). Two-striped gartersnakes are found in a variety of perennial and intermittent freshwater streams within oak woodlands, shrublands, and sparse coniferous forests from sea level to 2,400 meters (7,874 feet) AMSL (Stebbins 2003; Zeiner et al. 1988). On site, suitable habitat includes southern coast live oak riparian forest (including disturbed), southern cottonwood-willow riparian forest, sycamore alluvial woodland, and mulefat scrub. Much of this area will remain in open space.

Special-Status Upland Birds

Southern California rufous-crowned sparrow was detected in the project area during wildlife surveys. The location of Southern California rufous-crowned sparrow is on Figure 5a. Rufous-crowned sparrows are a year-round resident in San Diego County where they breed in coastal sage scrub and chaparral habitats. It is sensitive to habitat fragmentation, but can occupy suitable habitat along steep slopes and recently burned areas (Unitt 2004). The CNDDB shows records throughout San Diego and Riverside County. Suitable nesting habitat in the project area includes coastal sage scrub and chaparral habitats; they could also use extensive agriculture and grasslands for foraging.

Other Special-Status Raptors

Cooper's hawk, sharp-shinned hawk, red-shouldered hawk, turkey vulture, northern harrier, and white-tailed kite, were observed in the project area during wildlife surveys. Cooper's hawk, red-shouldered hawk, turkey vulture, and northern harrier were observed both in 2005 and 2010 during focused surveys for California gnatcatcher and/or least Bell's vireo and southwestern willow flycatcher. In addition, two owl species, great horned owl and barn owl, were observed within the project area. The locations of Cooper's hawk, great horned owl, and barn owl are provided on Figure 5a; the locations of the other raptors were not mapped.

A white-tailed kite was observed flying over the site in 2005 during focused bird surveys (Dudek 2005a); because it was a fly-over observed, the location was not mapped. This species was observed again in September 2010 during California gnatcatcher surveys (Dudek 2010b) and October 2010 during small mammal trapping (Envira 2010); however, these observations were not mapped. Unitt (2004) describes the occupied nest through fledgling dependent on adults stage between February and July; and Dunk (1995) describes the peak activity for breeding between March and June. The County (2010b) describes the nesting season for tree-nesting raptors as January 15 through July 15. Therefore, this species was not observed in the project area in 2010 during its peak breeding season, including during surveys for least Bell's vireo and southwestern willow flycatcher, which surveyed habitats suitable for white-tailed kite (i.e., southern coast live oak riparian forest and southern cottonwood-willow riparian forest). Although it is generally a resident bird throughout most of its breeding range, some dispersal occurs during the non-breeding season, resulting in some range expansion during the fall and winter. It has been observed sporadically throughout California during the winter (Dunk 1995) and is known to occur in more developed areas during the winter (Unitt 2004). The observations in 2010 were likely those of a dispersing individual. There is suitable nesting habitat in oak woodlands in the project area as well as foraging habitat; however, the low frequency of observations of this species during multiple years of wildlife surveys indicates it is likely

opportunistically using the site for foraging. If the species was nesting in the project area, it would be expected to have a higher frequency of observations.

The best nesting opportunities for special-status raptors in the project area occur within woodland and riparian forest habitats in the Gomez Creek canyon on the western side of the property. This area likely provides nesting opportunities for Cooper's hawk, red-tailed hawk and red-shouldered hawk. 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. If these species were nesting in the project area, we would expect to have more frequent observations of these species during surveys.

There are opportunities for raptor foraging throughout the grasslands, extensive agriculture, and sparse native habitat areas (disturbed coastal sage scrub and disturbed southern mixed chaparral) in the project area. 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. Due to the high level of ranch activities, grasslands are considered moderate value for foraging. The native uplands, riparian habitat, and woodlands on site are considered high value for foraging. In the context of region's undeveloped or rural areas within the large block of land stretching from I-15 east to Lake Henshaw, north to the Palomar Mountains, and south to Escondido, the project area does not constitute a hot-spot for raptor foraging. This large block of land supports numerous raptor foraging and nesting opportunities in the project region.

1.4.6.3 County Group 2 Species

County Group 2 species that have been observed in the project area, or have high potential to occur (Appendix M), are described below.

Special-Status Reptiles

Coastal western whiptail, northern red-diamond rattlesnake, and Blainville's horned lizard were observed during wildlife surveys. The location of northern red-diamond rattlesnake is on Figure 5a; the locations of the other reptiles were not mapped. Northern red-diamond rattlesnake is found in a variety of upland habitats, particularly rocky areas. Blainville's horned lizard is found in a wide variety of vegetation types with requisite loose sandy soils, including California sagebrush scrub, grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Klauber 1939; Stebbins 1954). Coastal western whiptail is found in a variety of open habitats where plants are sparse and where there are open areas for. The western whiptail is also found in woodland and streamside growth, and avoids dense grassland and thick shrub growth. One other reptile species that has high potential to occur based on suitable habitat is the orange-throated

whiptail (*Aspidoscelis hyperythrus*). Orange-throated whiptail occurs in low elevation coastal sagescrub, chaparral, and valley-foothill hardwood habitats (Zeiner et al. 1990).

The coastal whiptail is found in coastal Southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges; north into Ventura County; and south into Baja California, Mexico (Lowe et al. 1970; Stebbins 2003). Blainville's horned lizard occurs throughout most of California in locations west of the desert and Cascade-Sierran highlands, in elevations from sea level to around 2,438 meters (8,000 feet) AMSL (Stebbins 2003). Northern red-diamond rattlesnake is found in southwestern California, from the Morongo Valley west to the coast and south along the Peninsular Ranges to mid-Baja California. Orange-throated whiptail occurs from the Santa Ana River in Orange County, and near Colton in San Bernardino County, west of the Peninsular ranges, south throughout the Baja Peninsula, from sea level to approximately 610 meters (2,000 feet).

Special-Status Riparian Birds

Great blue heron and yellow warbler were observed during wildlife surveys. The location of yellow warbler is on Figure 5a; the location of the great blue heron was not mapped. Suitable habitat for great blue herons is found within Gomez Creek where water is present during part of the year. No Other riparian birds have high potential to occur in the project area.

Great blue heron is a common year-round bird found near water sources, particularly ponds and lakes that provide shallow wading areas. It is found throughout California and other states, and due to its limited water resources within the project area, the project area does not constitute an important foraging or nesting area for great blue heron.

Yellow warbler is a summer migrant in Southern California where it is found throughout a variety of riparian habitats. They currently breed throughout much of California except the Central Valley and desert regions; they also breed in the northern U.S. and Canada, and they winter in Mexico and Central America. Large-scale rangewide population changes have not been documented for the yellow warbler. Historically, the yellow warbler was described as a "common" to "locally abundant" breeder throughout California, except for most of the Mojave Desert and all of the Colorado Desert (Heath 2008). However, populations in the southwestern United States have declined dramatically in recent decades in many lowland areas (e.g., southern coast, Colorado River, San Joaquin and Sacramento valleys) (Lowther et al. 1999). Locally, yellow warbler has been document further downstream in the San Luis Rey River (CDFG 2011a), which provides a large block of suitable nesting habitat for this species.

Special-Status Upland Birds

Western bluebird was detected in the project area during wildlife surveys. the location of the western bluebird was not mapped. Western bluebirds are common resident birds in San Diego

County, where they prefer montane coniferous and oak woodlands (Unitt 2004). Because this species is not considered special-status by state or federal agencies, this species is not tracked in CNDDB. Suitable habitat in the project area includes the oak woodland habitat along Gomez and Pala creeks.

No other upland birds were observed or have high potential to occur in the project area.

Special-Status Small Mammals

Northwestern San Diego pocket mouse, mountain lion (*Puma concolor*), San Diego desert woodrat, and mule deer (or their sign) were observed during wildlife surveys. The northwestern San Diego pocket mouse and San Diego desert woodrat were observed during small mammal trapping in October 2010 (Envira 2010) and their locations are shown on Figure 5a. Another species that has high potential to occur based on suitable habitat is ringtail (*Bassariscus astutus*) though this would be within proposed open space. Suitable habitat for ringtail is located 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.

The northwestern San Diego pocket mouse occurs in southwestern California in San Diego County and portions of Riverside and San Bernardino Counties. They have potential to occur in a variety of habitats in the project area including coastal sagebrush scrub, chaparral, and non-native grassland where there are sandy soils (Zeiner et al. 1990).

The mountain lion is a widespread species; its range throughout California extends from deserts to humid forests in the Coast Ranges and from sea level to 3,050 meters (10,000 feet), but mountain lions do not inhabit xeric regions of the Mojave and Colorado deserts. They are most abundant in habitats that support their primary prey, mule deer, and their seasonal movements tend to follow prey availability.

The species desert woodrat (*Neotoma lepida*) is widespread throughout central and Southern California and the Great Basin, Mojave, and Colorado deserts. Marginal records for the subspecies San Diego desert woodrat (*N. l. intermedia*) in the United States include San Luis Obispo County, San Fernando in Los Angeles County, the San Bernardino Mountains and Redlands in San Bernardino County, and Julian in San Diego County (Hall 1981).

The ringtail occurs throughout the southwestern United States and south into Baja California and the provinces of Guerrero, Oaxaca, and Veracruz of mainland Mexico; in all of Arizona and Texas, and virtually all of New Mexico and Oklahoma; and in southwestern Oregon, the southern and eastern portions of Nevada, the western and eastern portions of Utah, the southwest corner of Wyoming, the western and central portions of Colorado, south-central Kansas, southwestern Missouri, and northern Louisiana (Hall 1981). The ringtail occurs throughout much

of California, absent only in the San Joaquin Valley and the extreme northwestern corner of the state (Hall 1981; Zeiner et al. 1990). There is relatively little information for the current status of the ringtail in California.

Special-Status Invertebrates

Monarch butterfly was detected in the project area during the 2008 Quino checkerspot surveys. There are no eucalyptus woodlands in the project area to support wintering populations of this species; however, it could use the site for dispersal. No other special-status invertebrates are expected to occur in the project area.

1.4.7 Jurisdictional Wetlands/Waters

The results of the 2010 jurisdictional wetlands delineation performed by Dudek were the identification of waters (wetlands and non-wetland) under the jurisdiction of the ACOE, RWQCB, CDFW, and County and additional waters (wetlands and non-wetland) only under the jurisdiction of CDFW and County (see Appendix K for jurisdictional delineation forms).

A total of 8.59 acres of ACOE, RWQCB, CDFW, and County jurisdictional wetlands, 0.04 acre of non-vegetated channel of ACOE, RWQCB, CDFW, and County jurisdictional waters, and 0.86 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 15.38 acres of CDFW and County-jurisdictional waters, and 0.28 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.

Table 4 shows the results of the jurisdictional delineation.

Table 4
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**

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.

The four community types/areas that were mapped as wetlands under the jurisdiction of ACOE, RWQCB, CDFW, and the County met all three of the wetland parameters identified in the 1987 *Corps of Engineers Wetlands Delineation Manual* (hydrophytic vegetation, hydric soils, and hydrology) that are needed to be considered an ACOE-jurisdictional wetland (Appendix K).

Three areas did not meet all three of the wetland parameters to be considered an ACOE-jurisdictional wetland either because they occur above the OHWM or are isolated from the San Luis Rey River; however, the presence of hydrophytic vegetation and hydrology within these areas qualified these areas as wetlands under the jurisdiction of CDFW and the County.

Non-wetland waters were present in the project area and their jurisdictions were defined based on their significant nexus to a traditional navigable water (TNW). Non-wetland tributaries to Gomez Creek as well as Pala Creek are considered waters of the U.S. and state because they both flow directly into the San Luis Rey River, which flows into the Pacific Ocean (a TNW).

Isolated waters in the project area are classified as channels with indicators of an OHWM that do not have a significant nexus to a TNW. Most of these ephemeral channels occur in the eastern portion of the project area. They consist of 1- to 2-foot-wide channels and do not connect to any other channels between their terminus and the San Luis Rey River.

Figure 5a shows the distribution of jurisdictional wetlands and non-wetland waters in the project area.

1.4.7.1 Functions and Values

Waters and wetlands are an important part of an ecosystem based on the functions and values they can provide. These functions and values of waters and wetlands in the project area are characterized as having a low, moderate, or high ability to provide the following:

- Flood storage and flood flow modification
- Nutrient retention and transformation
- Groundwater recharge
- Sediment trapping
- Toxicant trapping
- Wildlife habitat
- Aquatic habitat
- Public use.

Flood storage and flood flow modification. Gomez Creek and Pala Creek both have high flood storage and flood flow modification abilities. Gomez Creek has an approximately 10–20-foot channel bed that is deeply incised within the downstream portion of the site and surrounded by mature riparian vegetation with relatively unconstricted flow into the San Luis Rey River to the south. The Pala Creek in the eastern portion of the site is approximately 10–20 feet, moderately incised, and has a sandy bottom channel that also has a relatively unconstricted flow into the San Luis Rey River to the south. These characteristics enable the channels to hold and distribute water for a period of time.

The isolated wetlands in the eastern portion of the project area have moderate flood storage and flood flow modification abilities. The channels are approximately 5 to 10 feet wide with a sandy bottom and have vegetation to help control flow.

Other small non-wetland drainages (ephemeral channels) in the project area have low flood storage and flood flow modification abilities due to their lack of substantial width, depth, and vegetation.

Nutrient retention and transformation. Agriculture fields, cattle grazing, and associated ranch housing are present in portions of the project area, including areas adjacent to Gomez Creek and Pala Creek. These channels are likely to receive runoff from the agriculture fields, which contain pesticides, fertilizers, and other substances used in agriculture; cattle may graze through portions of the creek and associated waste is deposited in or near channels. Gomez Creek has some areas of herbaceous layers as well as areas that pond during the drier season; these characteristics indicate that Gomez Creek has a high nutrient-retention and transformation ability. The isolated

wetlands in the eastern portion of the project area also have many herbaceous plants within the channel, but overall these vegetated areas are small in size and therefore are likely to provide moderate nutrient-retention and transformation functions. Pala Creek and other waters in the project area have a low nutrient-retention and transformation ability due to their lack of ponding and herbaceous vegetation, which allows any chemicals from runoff to filter through the soils and vegetation.

Groundwater recharge. Groundwater recharge is the process of surface water percolating down below the surface. Soils and vegetation are important factors in groundwater recharge. The Pala Creek and isolated wetlands in the eastern portion of the project area both have wide, sandy bottom channels that give them a high groundwater recharge ability. Gomez Creek has hydric soils as well as some rocky areas, which provide slower percolation rates; therefore, Gomez Creek has only a moderate groundwater recharge ability. Other waters in the project area have a low groundwater recharge ability due to the substrates present, lack of sandy soils, and higher slopes.

Sediment trapping. Many of the small tributaries into Gomez Creek carry sediment during storm flow. Gomez Creek has a high sediment trapping ability due to its relatively wide channel, areas for retention, and presence of herbaceous vegetation in some parts of the channel. The isolated wetlands in the eastern portion of the creek have a moderate sediment trapping ability due their relatively flat slope and herbaceous vegetation. All other channels in the project area have a low sediment trapping ability due to a lack of herbaceous vegetation to slow flow and trap sediment or high slopes that don't allow for ponding.

Toxicant trapping. Potential toxicants in the project area would include pesticides and fertilizers from the active agriculture operations. The toxicant trapping abilities of the channels in the project area are the same as described in nutrient retention and transformation above.

Wildlife habitat. There are a variety of wetland communities in the project area, as described above under Section 2.2, including southern cottonwood-willow riparian forest, mulefat scrub, southern coast live oak riparian forest, and sycamore alluvial woodland. The beneficial uses listed for Gomez Creek by the State Water Resource Control Board (SWRCB) (1994) include preservation of biological habitats of special significance. The habitats along Gomez Creek, Pala Creek, and the isolated wetlands in the eastern portion of the project area support native riparian habitat and have the potential to support a variety of wildlife species, including birds, mammals, reptiles, and amphibians. The other ephemeral waters in the project area generally lack vegetation or cover, but could provide some habitat for small wildlife species, such as rodents, reptiles, invertebrates, and amphibians.

Aquatic habitat. The beneficial uses listed for Gomez Creek by SWRCB (1994) include warm freshwater habitat and cold freshwater habitat. Gomez Creek has water flow nearly year-round and could provide habitat for aquatic species, such as fish, amphibians, and aquatic reptiles (e.g., turtles). None of the other channels have regular water flow and would not provide habitat for aquatic species.

Public use. Warner Ranch is a private ranch and does not have public access. There is fencing around the property that also excludes most vehicles from entering the property. The beneficial uses listed for Gomez Creek by SWRCB (1994) include municipal and domestic supply of water, agricultural supply of water, industrial service supply of water, and contact and non-contact water recreation.

1.4.8 Habitat Connectivity and Wildlife Corridors

For the purpose of the habitat connectivity and wildlife corridor discussion, two kinds of dispersal are defined, based on Pielou (1979): diffusion and jump dispersal. Diffusion is the gradual movement or expansion of populations (as opposed to individuals) across a landscape over several generations and may be applicable to, for instance, nonmigratory small mammals or birds re-occupying recovering burned sites. Jump dispersal (hereafter simply called dispersal) is a one-time, long-distance movement within the lifetime of an organism across otherwise relatively unsuitable landscapes or across suitable habitat already occupied by conspecifics (members of the same species). An example of jump dispersal is a juvenile mountain lion dispersing across other individuals' home ranges or rural developed areas to establish a new home range.

These two types of movement—diffusion and dispersal—are discussed in the context of three main types of habitat connections—habitat linkages, wildlife corridors, and wildlife crossings. These habitat connections thus 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).

Wildlife Landscape Habitat Linkages. Landscape habitat linkages (or simply 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 (Bennett 2003).

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 or more vagile 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 these larger or more vagile species. Linkages may also serve as migratory routes for ungulates, for example, and thus provide a more natural and sustainable landscape environment 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. Rosenberg et al. (1995) distinguish between habitat and 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 (Rosenberg et al. 1995, 1997). 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. The mechanisms related to the efficacy of corridors are varied and species-specific (Soulé and Gilpin 1991; Beier and Loe 1992; Rosenberg et al. 1995; Haddad and Tewksbury 2005). Additionally, 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 (Haddad 1999). This ebb and flow of genetic diversity should occur if organisms are traversing corridors that physically connect geographically patchy populations (Beier and Loe 1992). Corridors thus provide physical conduits for maintaining specific genetic diversity, species richness, and community integrity. However, corridors may also connect population sources to "sink habitat" that can result in the net reduction of a population; in other words, the sink habitat either does not support the full life history of the species, or populations are more vulnerable to risk factors.

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. Less vagile species that are unable to move through a corridor in a lifetime require sufficient habitat to allow diffusion of the species over more than one generation (intergenerationally) through the area. High-mobility aerial species were not considered in the identification of corridors because of their relative independence of wildlife corridors.

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 at roadways where no safe wildlife passage is provided (Meese et al. 2007).

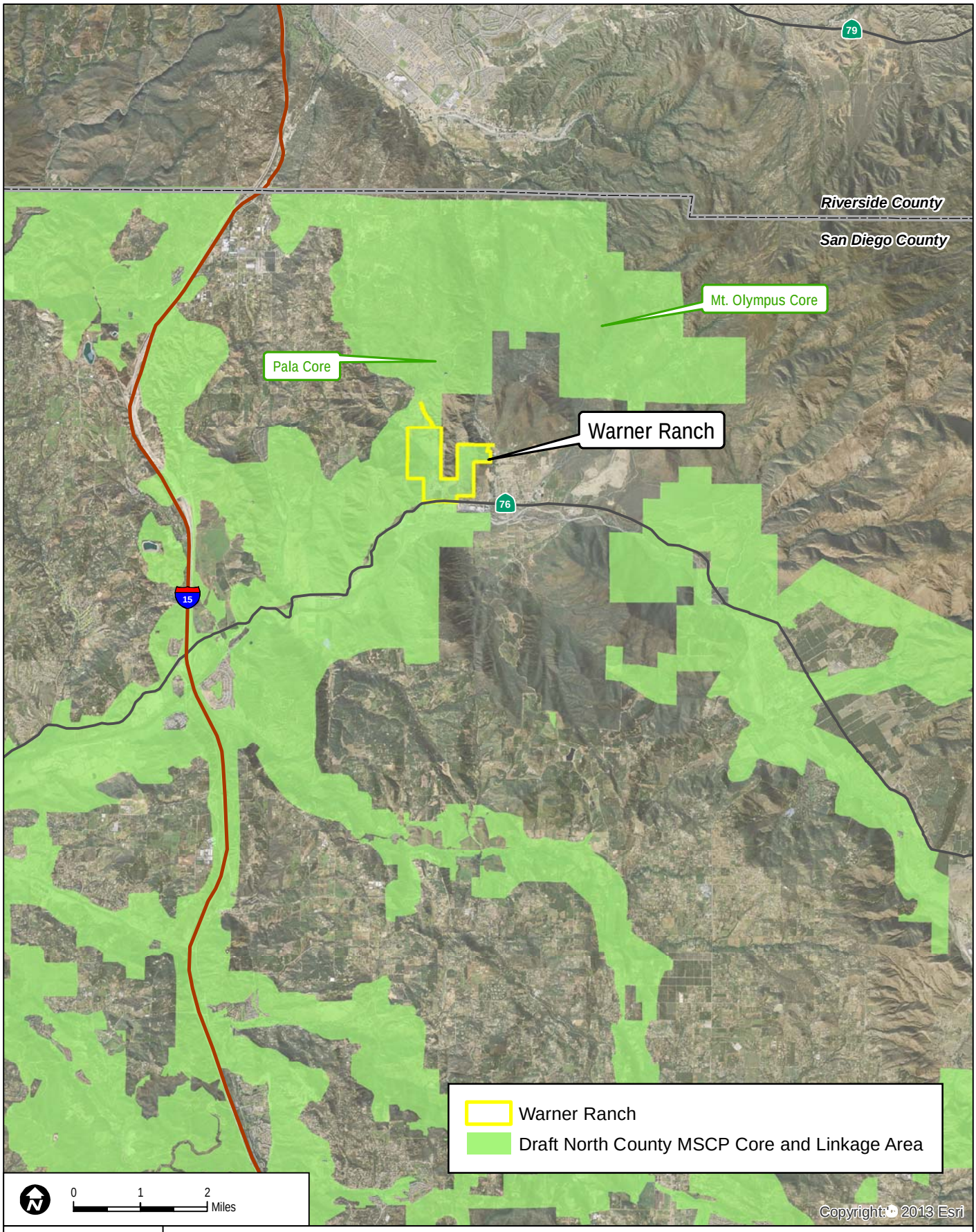
Post-development drainages (e.g., creek crossing under SR 76) are typical pathways for wildlife movement across roads, although they are not the only pathways used. Structures where roads and drainages intersect are often constricted or confined in some way and provide funnel points for movement, such 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 retrofit 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).

Project area. 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 I-15 and the project area and connecting with the Palomar Mountains and Laguna Mountains to the east and southeast (Figure 7a). 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 south of SR 76, including a

portion of the project area (Figure 7a) (County of San Diego 2009). 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 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 across the landscape 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 portions of the site itself. Figure 7b illustrates 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 also 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) and the majority of it offers wildlife opportunities for connectivity between Mount Olympus and the San Luis Rey River.

Specifically within the project area, the upper reach of Gomez Creek is a densely vegetated canyon creek that originates from the hills near Rainbow, California, and flows south into the San Luis Rey River. Gomez Creek 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 is a narrow, deeply-incised channel with sparse cover of mule fat scrub and scattered sycamores. It is adjacent to active ranch pastures to the east and west and active American bison pastures to the south.



DUDEK

6653-01

SOURCE: SANGIS 2008; County of San Diego 2005, 2009

FIGURE 7a

Wildlife Corridor and Linkage Map - Vicinity

Warner Ranch - Biological Technical Report

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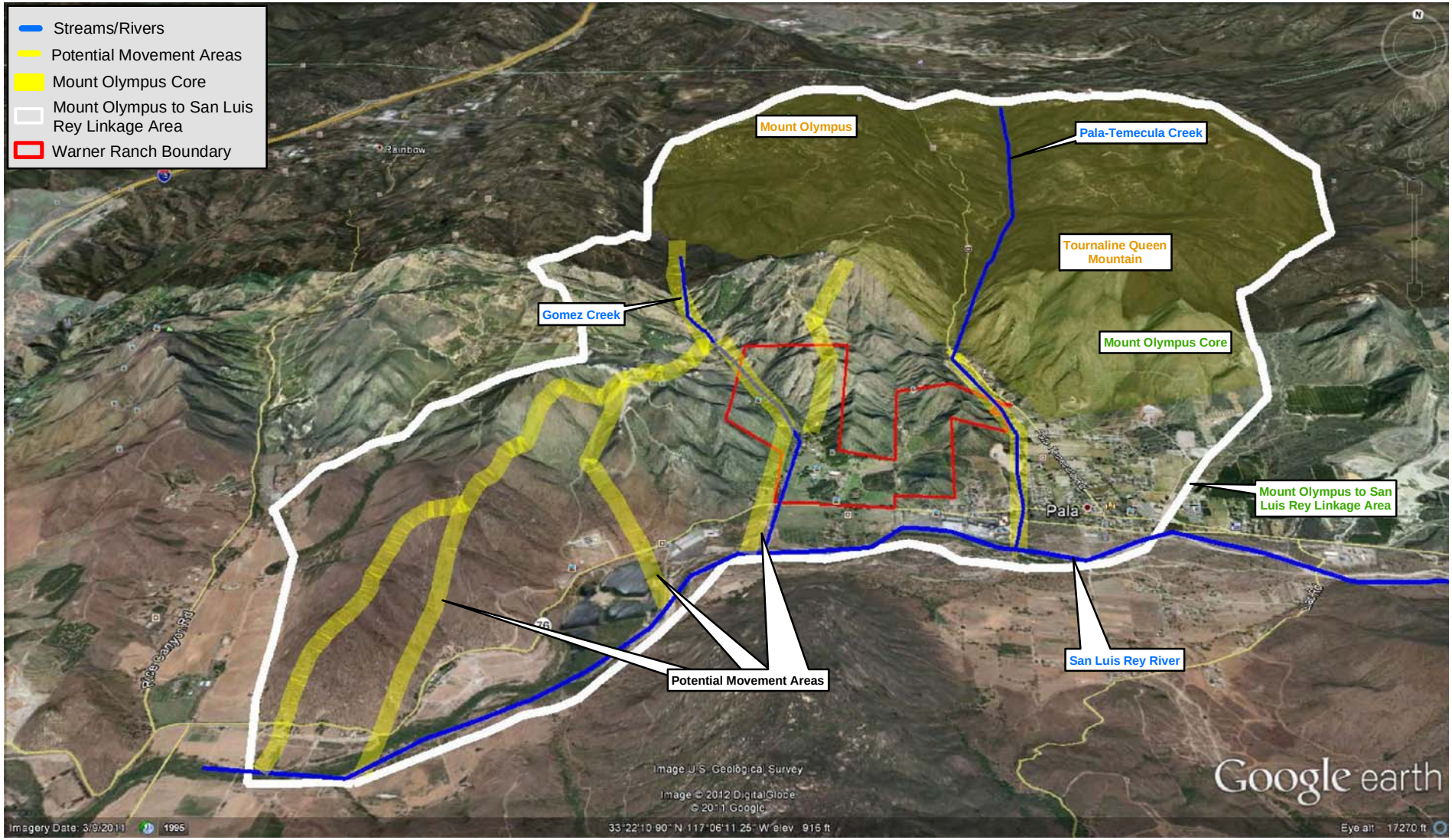

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6653-01

SOURCE: Google Earth 2011

FIGURE 7b

Wildlife Corridor and Linkage Map - Warner Ranch

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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. However, set in the context of large, open wildlife movement areas in the regional block of undeveloped land or mixed-density development located 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, Dudek documented 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 would 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 the lower portion of Gomez Creek. This area also provides a habitat linkage for dispersal by avian species.

Raptors may utilize the dense vegetation along the upper portions of the creek for cover (e.g., Cooper's hawk and great horned owl), 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. Pala Creek 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 surrounding mixed-density development 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). However, 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 2007). The site supports habitats and movement corridors that are similar to other sites within the region and is considered a Sensitive Habitat Land under the RPO.

1.5 Applicable Regulations

1.5.1 Federal

The federal Endangered Species Act (FESA) of 1973 (16 U.S.C. 1531 et seq.), as amended, is administered by USFWS, the National Oceanic and Atmospheric Administration, and the National Marine Fisheries Service. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. Under provisions of Section 9(a)(1)(B) of FESA, it is unlawful to "take" any listed species. "Take" is defined in Section 3(19) of FESA as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Species listed under FESA that have potential to occur in the project area or for which there is suitable habitat in the project area include arroyo toad, California gnatcatcher, southwestern willow flycatcher, least Bell's vireo, Stephens' kangaroo rat, and Quino checkerspot butterfly.

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collection, or killing, or attempting to do so. Additionally, Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds," requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations. The executive order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Pursuant to Section 404 of the CWA, ACOE regulates the discharge of dredged and/or fill material into waters of the U.S. The term "wetlands" (a subset of waters) is defined in 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the 'ordinary high water mark' which is defined in 33 CFR 328.3(e)."

1.5.2 State

CDFW administers the California Endangered Species Act (CESA) (Fish and Game Code, Section 2050 et seq.), which prohibits the take of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the State of California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that

will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy." Species listed under the CESA that have potential to occur in the project area or for which there is suitable habitat in the project area include southwestern willow flycatcher, least Bell's vireo, and Stephens' kangaroo rat.

CESA Sections 2080 through 2085 address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

Sections 2081(b) and (c) of the Fish and Game Code authorize take of endangered, threatened, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, Section 2080.1 of the CESA allows CDFW to adopt a federal incidental take statement or a 10(a) permit as its own based on its findings that the federal permit adequately protects the species and is consistent with state law. A Section 2081(b) permit may not authorize the take of "fully protected" species and "specified birds" (Fish and Game Code, Sections 3505, 3511, 4700, 5050, 5515, and 5517). If a project is planned in an area where a fully protected species or a specified bird occurs, an applicant must design the project to avoid take.

Pursuant to Section 1602 of the Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required for impacts to jurisdictional wetlands in accordance with Section 1602 of the California Fish and Game Code.

Section 2835 of the Fish and Game Code allows CDFW to authorize incidental take in an NCCP. Take may be authorized for identified species whose conservation and management is provided for in the plan, whether or not the species is listed as threatened or endangered under the federal or state Endangered Species Acts, provided that the NCCP complies with the conditions established in Section 2081 of the Fish and Game Code. Coastal sage scrub is protected under a state NCCP in order to conserve sensitive species that are dependent on this habitat type, including the federally listed coastal California gnatcatcher.

1.5.3 County

The RPO, enforced by the County, protects special-status biological resources within the County. These resources include wetlands, wetland buffers, and sensitive habitat lands. Generally, the

ordinance stipulates that no impacts may occur to wetlands except for scientific research, removal of diseased or invasive exotic plant species, wetland creation and habitat restoration, revegetation and management projects, and crossings of wetlands for roads, driveways, or trails/pathways when certain conditions are met. The same exemptions apply to impacts to wetland buffer areas, and improvements necessary to protect adjacent wetlands are permitted. Sensitive habitat lands include unique vegetation communities, habitats that support sensitive species, lands essential to the healthy functioning of a balanced natural ecosystem, and wildlife corridors. If impacts cannot be avoided, mitigation must provide at least an equal benefit to the affected species (County of San Diego 2007).

The draft NCMSCP is a habitat conservation planning effort for areas in the northwestern unincorporated areas of the County. The draft NCMSCP encompasses approximately 489 square miles, including Bonsall, De Luz, Fallbrook, Harmony Grove, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center. The draft NCMSCP is being prepared as a multiple species habitat conservation plan (HCP) as well as a NCCP. The draft NCMSCP's goals are to develop a preserve system which designates certain areas as draft future pre-approved mitigation areas (PAMA), provide a regulatory process that allows for efficient permitting of developments and other projects, and to maintain the scenic beauty and diversity of natural and cultural resources for the community. Warner Ranch is a proposed "hard-lined" project in this plan.

One of the goals of the NCCP is to provide conservation guidelines for coastal sage scrub. In 1993, CDFG and California Resources Agency (CRA) published the Southern California Coastal Sage Scrub NCCP Conservation Guidelines (Conservation Guidelines) (CDFG and CRA 1993a) and the Southern California Coastal Sage Scrub NCCP Process Guidelines (Process Guidelines) (CDFG and CRA 1993b). The Conservation Guidelines provide guidance to determine the habitat value of the coastal sage scrub, and the Process Guidelines provide guidance to determine the required mitigation for impacts to coastal sage scrub, as well as suitable options for mitigation, including dedication of land. Since there is not an approved HCP that covers the project area, the NCCP guidelines will be used to determine the habitat value of the coastal sage scrub in the project area, significance of potential impacts, and required mitigation. The habitat value of the coastal sage scrub is discussed in Section 1.4.2.1, and the mitigation requirements are discussed in Section 4.4. The County administers coastal sage scrub habitat loss in accordance with the NCCP by its Habitat Loss Permit (HLP) ordinance.

There are no approved HCPs, Habitat Management Plans (HMPs), or Special Area Management Plans (SAMPs) associated with the Warner Ranch project.

The agencies require compliance with the MBTA through the NCCP process, which is discussed in Section 1.5.1, above.

2 PROJECT EFFECTS

2.1 Definition of Impacts

This section defines the types of impacts considered in this report to analyze the proposed project's potential effects on biological resources. These impacts are discussed in more details below.

Direct impacts refer to 100 percent permanent 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 outside 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 (Figures 8a and 8b). Off-site project features (e.g., waterline) are also considered permanent direct impacts where there is 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. This report does not include analysis of cumulative impacts; this analysis is being prepared separately for direct inclusion in the CEQA document being prepared for the project.

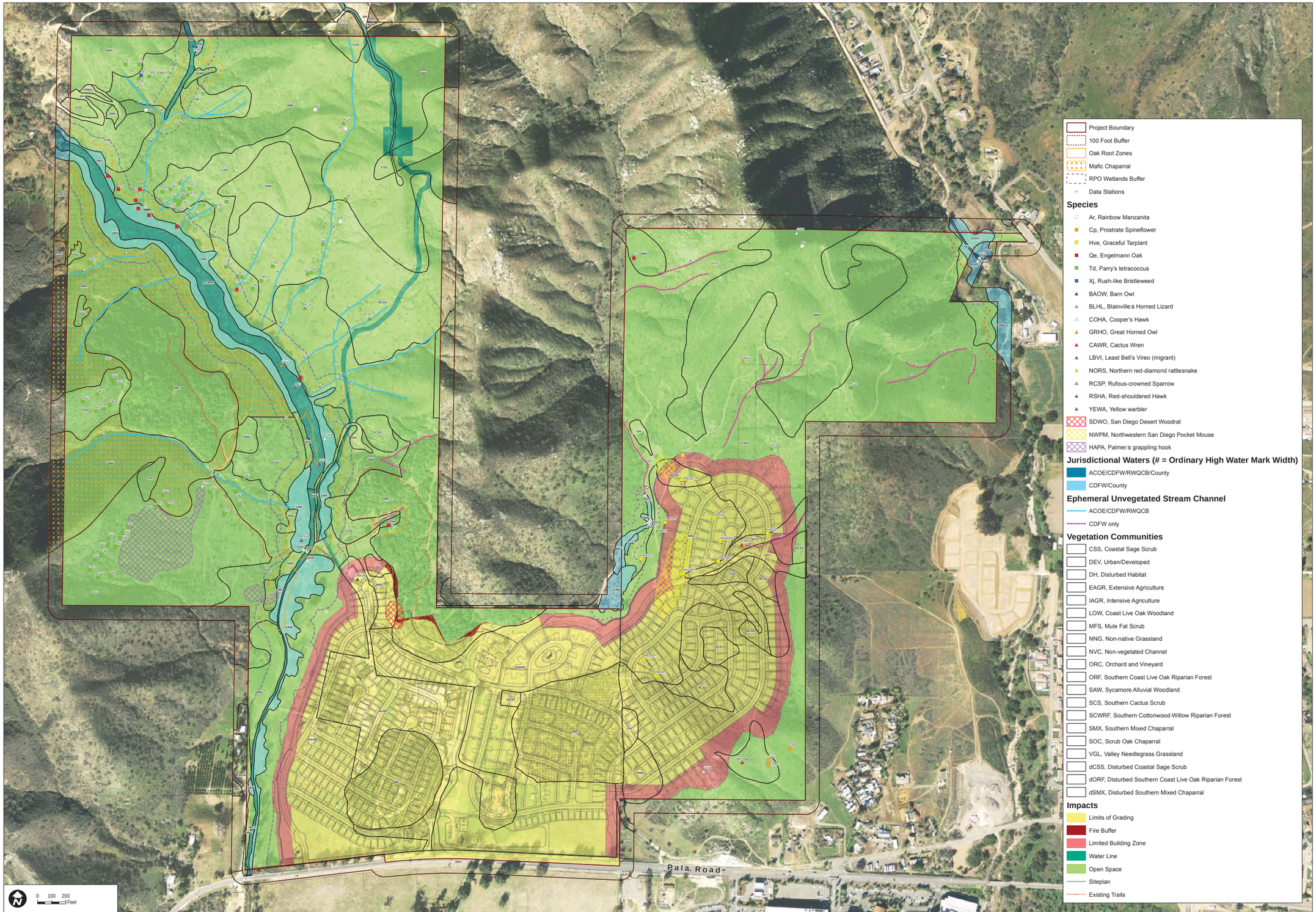
Following the County Guidelines (County of San Diego 2010a, 2010b), there are several areas that will be considered "impact neutral". Impact neutral areas are land that is not being directly impacted, but cannot be counted toward mitigation; these areas include RPO wetlands, wetland buffers. Areas that are designated as impact neutral not included in the project open space acreage.

Tables 5 through 7 summarize the impacts to vegetation communities and jurisdictional areas along with the biological open space mitigation and impact neutral acreages. These impacts are shown on Figure 8a.

Table 5
Impacts to Non-jurisdictional Vegetation Communities

Habitat Types/ Vegetation Communities	Existing Acreage	Impacts – Limits of Grading (Ac.)	Impacts – Fire Buffer and Waterline Ac.)[2]	Total Impacts (Ac.)[3]	Biological Open Space Mitigation (Ac.)	Impact Neutral (Ac.)
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	**489.6**	**145.2**[2]	**10.0**	**154.4**	**299.7**	**35.4**

[2] The fire buffer acreages listed here are limits of the fire boundary outside of the limits of grading.
[3] Totals may not add due to rounding.



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SOURCE: DigitalGlobe 2008

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Warner Ranch - Biological Technical Report

FIGURE 8a

Impacts

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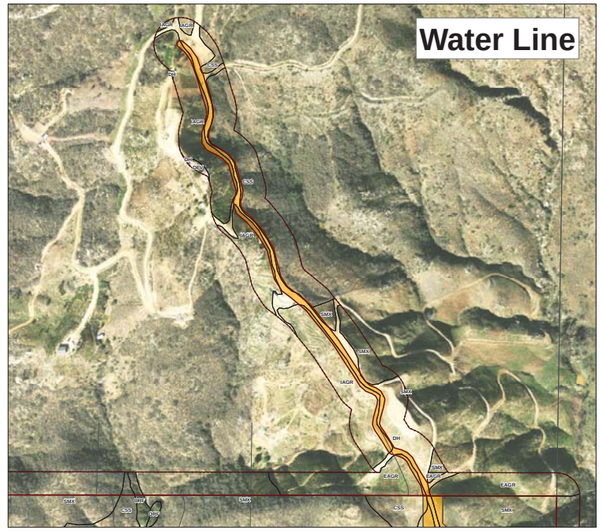

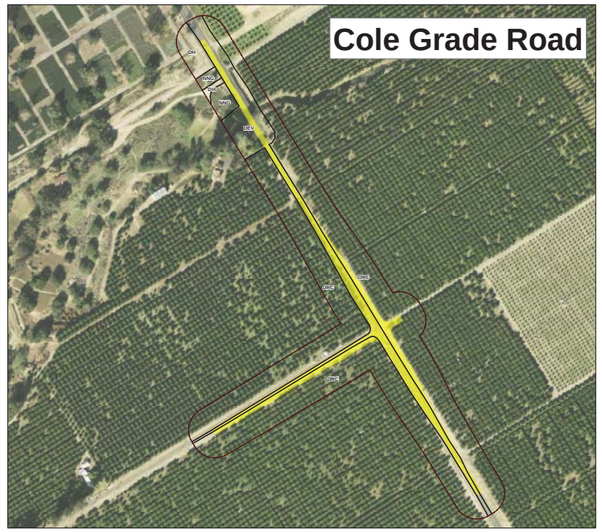

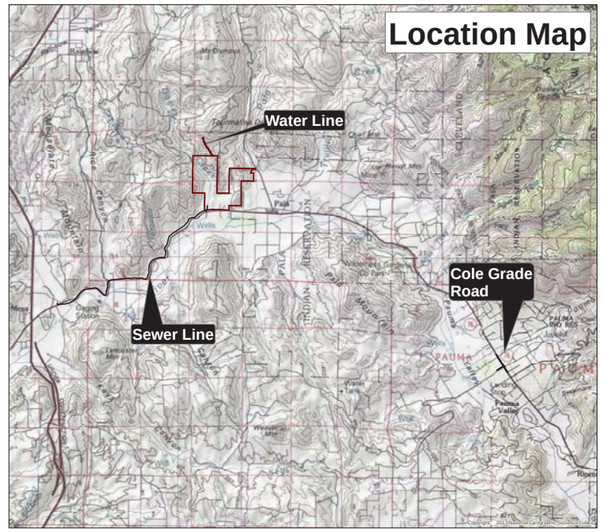

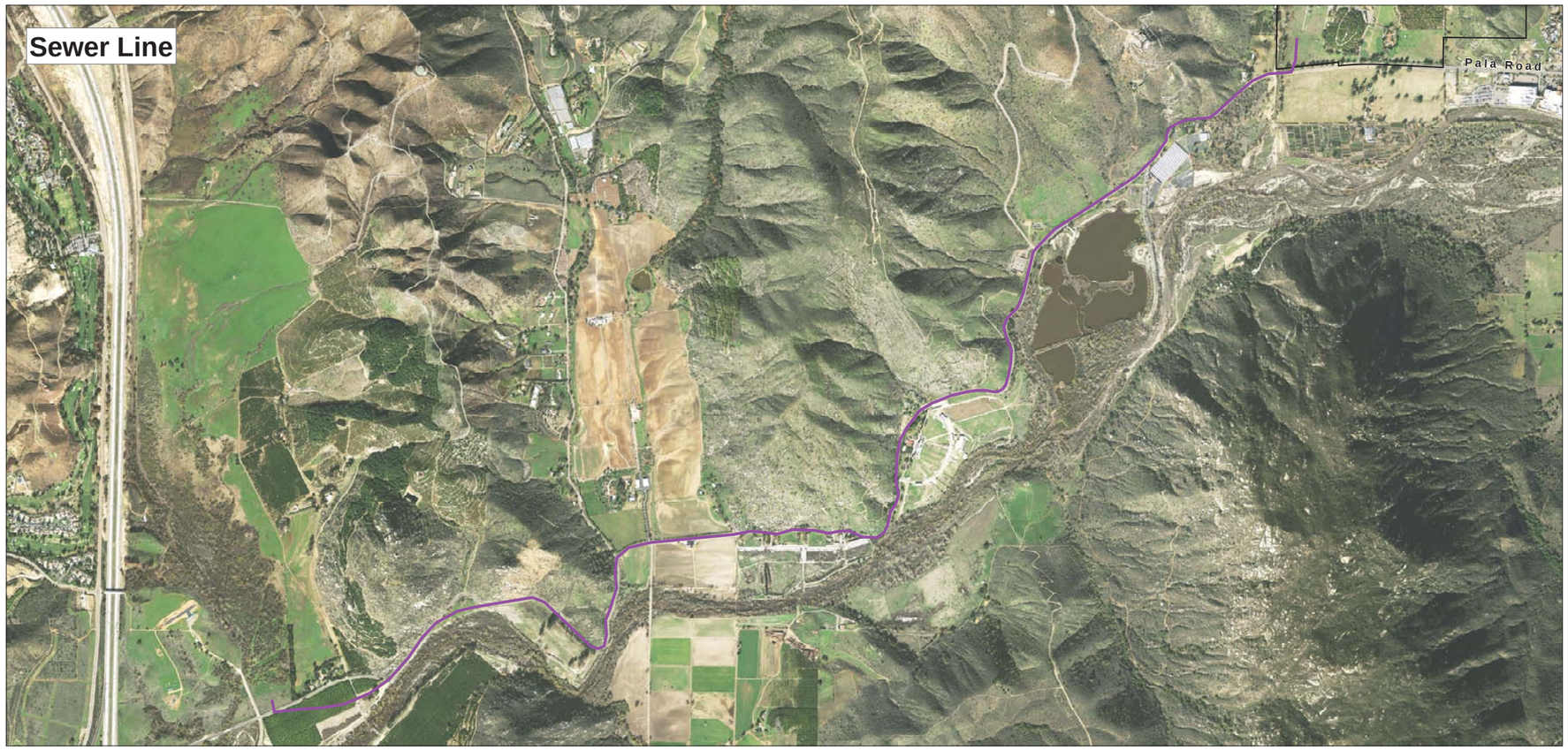

- Project Boundary
- 100 Foot Buffer
- Parcels
- Siteplan

Impacts

- Limits of Grading
- Water Line
- Sewer Line

Vegetation Communities

- CSS, Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- EAGR, Extensive Agriculture
- IAGR, Intensive Agriculture
- LOW, Coast Live Oak Woodland
- MFS, Mule Fat Scrub
- NNG, Non-native Grassland
- NVC, Non-vegetated Channel
- ORC, Orchard and Vineyard
- ORF, Southern Coast Live Oak Riparian Forest
- SAW, Sycamore Alluvial Woodland
- SCS, Southern Cactus Scrub
- SCWRF, Southern Cottonwood-Willow Riparian Forest
- SMX, Southern Mixed Chaparral
- SOC, Scrub Oak Chaparral
- VGL, Valley Needlegrass Grassland
- dCSS, Disturbed Coastal Sage Scrub
- dORF, Disturbed Southern Coast Live Oak Riparian Forest
- dSMX, Disturbed Southern Mixed Chaparral

0 100 200 Feet

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SOURCE: DigitalGlobe 2008

FIGURE 8b

Impacts - Off-site Areas

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The proposed project also includes a trail design. Much of the trail is located within existing ranch roads where no new ground-disturbing activities would take place. The additional (proposed) trails are located within the fire buffer, limits of grading, and immediately adjacent to the limits of grading in open space (Figure 8a shows the existing and proposed trails). A portion of the existing trail that is located in an existing paved road overlaps with the RPO wetland buffer along Gomez Creek.

There are also impacts associated with the off-site waterline and the Cole Grade Road intersection improvements. The 30-foot right-of-way for the off-site waterline (3,000 linear feet) is approximately 1.6 acres and would impact up to 0.9 acre of disturbed habitat, 0.6 acre of agriculture, and less than 0.1 acre of Diegan coastal sage scrub. The Cole Grade Road intersection improvements project area is 2.6 acres and includes 0.9 acre of orchard and 1.7 acres of developed land. The majority of the proposed sewer line is located within the roadway of SR 76, with a portion at the western terminus also impacting an orchard. The proposed off-site sewer line[4] 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 (<0.1 acre). Due to the mostly developed nature of the footprint of the proposed sewer line, vegetation communities were not mapped. The off-site impacts are shown on Figure 8b.

Table 6
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
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**

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

Table 7
Impacts to Waters and Wetlands of the U.S./State/County

Vegetation Communities	Existing Acreage	Impacts – Limits of Grading, Fire Buffer, and Waterline (Ac.)	Biological Open Space Mitigation (Ac.)	Impact Neutral (Ac.)
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**

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.

2.2 Significance Criteria

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

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.

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

B. The project would impact an on-site population of a County List A or B plant species, or a County Group 1 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.

C. The project would impact the local long-term survival of a County List C or D plant species or a County Group 2 animal species.

D. 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.

E. 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.

F. 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.

G. 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.

H. 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.

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

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

K. The project would impact occupied Hermes copper habitat.

L. 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

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.

A. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5, excluding those without a mitigation ratio) on or off the project site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No *de minimus* standard is specified under which an impact would not be significant, however; minor impacts to native or naturalized habitat that is providing essentially no biological habitat or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant. For example, and impact to native or naturalized upland habitat under 0.1 acre in an existing urban setting may be considered less than significant (depending on a number of factors). An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Just because a particular habitat area is isolated, for example, does not necessarily mean that impacts to the area would not be significant (e.g., vernal pools). An area that is disturbed or partially developed may provide a habitat "island" that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFW 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.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

D. 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 habitats 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 by the best available science to adversely affect the functioning of sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the Resource Protection Ordinance, buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best available science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths.

- A 50-foot wetland buffer would be appropriate for lower quality RPO wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive and slopes do not exceed 25 percent.
- A wetland buffer of 50-100 feet is appropriate for moderate to high quality RPO wetlands which support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25 percent) with highly erosive soils. Within the 50-100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that count not be mitigated.
- Wetland buffers of 100-200 feet are appropriate for RPO wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.

- Buffering of greater than 200 feet may be necessary when an RPO wetland is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) which could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO wetland buffers, actions may be subject to other laws and regulations (such as the Endangered Species Act) that require greater wetland buffer widths.

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

This Guideline refers only to federally protected wetlands. The significance of impacts shall be determined under Guideline 4.2.B, C, and E.

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.

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

B. 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.

C. 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.

D. 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.

E. 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.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-site) 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.

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.

A. 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 Process (NCCP) Guidelines.

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

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

D. 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 Process (NCCP) Guidelines.

E. 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.

F. 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).

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

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

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

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

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

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

The project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species. The project has impacts that are individually limited, but cumulatively considerable. ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The whole of the proposed action must be evaluated to determine if there will be significant cumulative impacts. Cumulative issues to consider include the applicability of a regional plan (such as MSCP and NCCP) and a list of past, present and future projects in the area. Cumulative impacts should be evaluated for each of the guidelines used to determine significance. If relying on a project's conformance with a regulatory program or existing mitigation plan such as an HCP or NCCP as evidence that cumulative impacts will be less than significant, additional language should be included to substantiate the decision that the project has no cumulatively considerable impacts beyond the existence of the HCP or NCCP. CEQA requires an appropriate cumulative project area (geographic scope) when determining which projects to include in a cumulative analysis. If the appropriate project area is entirely within the MSCP, a project may rely on the MSCP to determine that the project's impacts are not cumulatively considerable. If, however, a project is located on the periphery of the MSCP, or the project lies both within and outside the MSCP, the cumulative project area must extend beyond the boundaries of the MSCP as necessary to address the appropriate resource(s). The HCP or NCCP may not be adequate to substantiate a finding of no cumulatively considerable impacts if there are newly-listed species and/or species present that were not identified as adequately conserved by the HCP or NCCP.

3 SPECIAL STATUS SPECIES

3.1 Guidelines for the Determination of Significance

The County Guidelines used to determine significance for impacts to special-status species include County Guideline 4.1, described in its entirety in Section 2.2. The analysis of each special-status species is provided below in Section 3.2.

3.2 Analysis of Project Effects

The project effects are determined through direct and indirect impacts which are defined in Section 2.1 above. Impacts are shown on Figures 8a and 8b.

3.2.1 Project Effects Relevant to Guideline 4.1.A

There are no federally listed or state-listed endangered or threatened plant species in the project area and none are expected to occur.

Arroyo Toad

Over 30 hours of surveys were conducted for the arroyo toad in the project area. These surveys were negative. Based on the negative surveys, arroyo toad does not currently breed or reside in Gomez Creek. However, because there is suitable habitat for this species in the project area and the site is located in close proximity to a known population within the San Luis Rey River, potential impacts to this species, if it were to occur on site in the future, would be significant (**Impact-BI-1**). These impacts include the potential direct loss of individuals that may aestivate or forage within the proposed development area during construction. 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) (**Impact-BI-1**).

The effects of the project on critical habitat are not evaluated under the County's guidelines but may be reviewed by the USFWS. The project would result in alterations of 91.8 acres of arroyo toad critical habitat and placement of 40.0 acres of critical habitat into permanent open space (Figure 9). All of the suitable breeding habitat on site for arroyo toad is within the on-site open space. The impacts to critical habitat associated with the waterline and water tank are not suitable breeding or upland aestivation habitat for arroyo toad. Focused surveys for arroyo toad were negative; therefore, the critical habitat in the project area is considered to be currently unoccupied. In addition, much of the critical habitat in the project area is mapped within intensive agriculture and developed areas that are not suitable for this species, and movement from the San Luis Rey River is limited by SR 76 and residences.

Southwestern Willow Flycatcher and Least Bell's Vireo

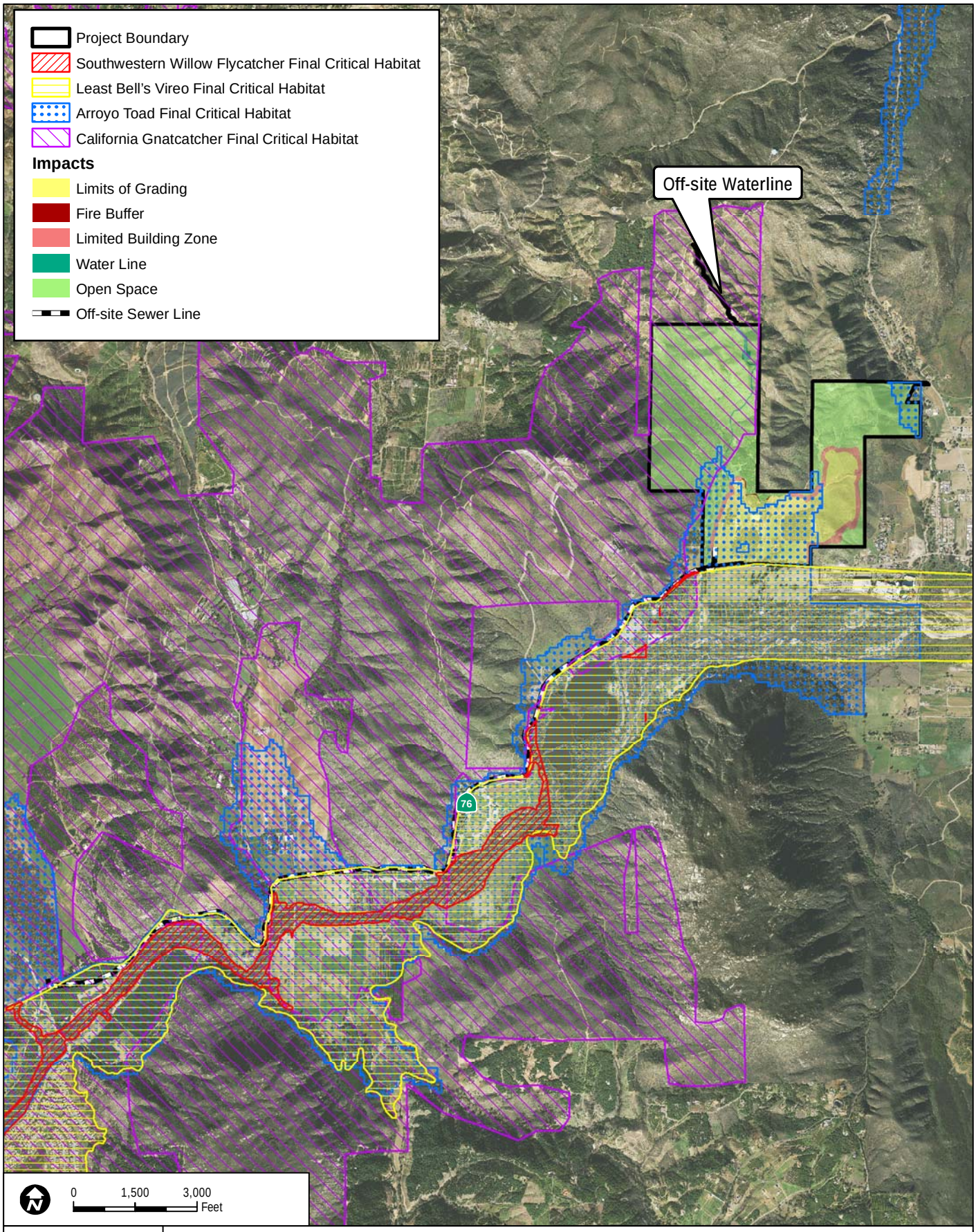
Over 80 hours of focused surveys were conducted for the southwestern willow flycatcher and least Bell's vireo. No southwestern willow flycatchers have been observed in the project area, and only one migrant least Bell's vireo was observed. Neither of these species are considered currently present on site; however, suitable habitat is present and would be preserved, with adequate buffers, under the proposed development. As such, these areas of suitable habitat may be occupied by the species in the future, including during construction, and as such, potential indirect impacts of noise may occur and would be considered significant if they disrupted breeding behavior (see Section 3.2.8 for significance determination).

There are impacts to 0.14 acre of suitable southern coast live oak riparian forest habitat from the proposed waterline. These impacts are considered significant (**Impact-BI-2**).

California Gnatcatcher

Over 80 hours of focused surveys were conducted for the California gnatcatcher. No California gnatcatchers have been observed in the project area; therefore, no direct impacts to individual species would occur as a result of the proposed project and the project does not meet the County significance criterion 4.1(a). 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 (**Impact-BI-3**). Approximately 149.0 acres of suitable California gnatcatcher habitat will be preserved in on-site biological open space.

Impacts to coastal sage scrub resulting from project implementation will require the issuance of an HLP based on the completion of findings pursuant to Section 4(d) of the FESA, unless the 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 utilized 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.



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SOURCE: Digital Globe 2008
USFWS 2012

FIGURE 9

Critical Habitat with Impacts

Warner Ranch - Biological Technical Report

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As described in Section 1.4.2.1, the Process Guidelines (CDFG and CRA 1993b) provide guidance to approve an interim habitat loss application based on criteria in Section 4.2g of the Process Guidelines. A summary of the Section 4(d) findings based on these criteria are provided below.

Based on the criteria provided in the Conservation Guidelines (CDFG and CRA 1993a), the coastal sage scrub habitat in the project area would be considered Intermediate Value habitat due to the proximity to Very High Value modeled habitat for California gnatcatcher in the draft NCMSCP and taking into consideration the interspersed nature of the coastal sage scrub in the project area and lack of connectivity to a focus area. The project does not have a substantial effect on habitat connectivity between focus areas, and based on the negative results of the survey, the project area does not support California gnatcatchers. Therefore, 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.

The project would result in a the following alterations to California gnatcatcher critical habitat as a result of the proposed water line: 4.2 acres within the project boundary and 1.6 acres outside of the project boundary. Approximately 213.3 acres of critical habitat will be preserved in on-site open space.

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; therefore, no direct impacts to individual species would occur as a result of the proposed project, and the project does not meet the County significance criterion 4.1(a). 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, with movements up to 3.7 miles (USFWS 2003), the project area is unlikely to become occupied by this species. Therefore, there are no impacts to the species or significant 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. Furthermore, 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 in citrus or avocado orchards (Envira 2011). Based on trapping results and site evaluation, further trapping surveys for this species are not warranted unless conditions surrounding the property were to drastically be altered as through a major fire event, which could cause a potential colonization could increase (Envira

2011). No direct impacts to individual species would occur as a result of the proposed project, and there are no impacts to the species or significant impacts to suitable habitat for the species. Therefore, the project does not meet the County significance criterion 4.1(a).

3.2.2 Project Effects Relevant to Guideline 4.1.B

3.2.2.1 Special-Status Plant Species (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.

3.2.2.2 Special-Status Wildlife Species (County Group 1 or State SSC Species)

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. Because the southern cactus scrub is considered a sensitive habitat lands under RPO, Shapouri and Associates has prepared a memorandum that evaluates the feasibility of the proposed project if all of the southern cactus scrub is avoided (Appendix N). Total impacts to southern cactus scrub are 2.7 acres, including activities within the proposed fire buffer (Figure 8a). Impacts to the southern pair of cactus wren are minor (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. According to the RPO, development may be allowed "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 affect species" (County of San Diego 2007). The efficacy of this conservation area was specifically reviewed by CDFW staff and determined to be adequate, with implementation of measures to minimize indirect impacts (see Section 3.2.8) (Rodriguez, pers. comm. 2013). Therefore the southern pair of cactus wren are expected to be able to persist within on-site open space. Based on the County significance criteria 4.1(b), impacts to a single pair of cactus wren and associated occupied habitat (sensitive habitat lands) for cactus wren would be significant, absent mitigation (**Impact-BI-4**).

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 J). There are no impacts to golden eagle individuals or nest locations. Impacts to raptor foraging habitat is discussed in Section 3.2.5.

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**).

Special-Status Upland Birds

Southern California rufous-crowned sparrow was detected in the project area during wildlife surveys. The location of Southern California rufous-crowned sparrow is on Figure 5a. Southern California rufous-crowned sparrow could use a variety of habitats in the project area for foraging or breeding, including coastal sage scrub (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 108.5 acres of suitable habitat for these species, including impact activities within the fire buffer and waterline. A total of 280.3 acres of suitable grassland and shrubland would be retained in open space proposed by the project. Based on the County significance criterion 4.1(b), direct impacts to more than 5 percent of suitable habitat for Southern California rufous-crowned sparrow is considered significant, absent mitigation (**Impact-BI-5**).

If any active nests or young of this species is impacted through direct grading or activities within the fire buffer, these impacts would be considered significant, because they are protected under the MBTA (see Section 7 for impact determination).

No additional Group 1 or state SSC upland special-status birds have been observed or have high potential to occur in the project area (see Appendix M for the potential to occur table).

Special-Status Raptors

Cooper's hawk, sharp-shinned hawk, red-shouldered hawk, turkey vulture, northern harrier, and white-tailed kite, were observed in the project area during wildlife surveys. Cooper's hawk and red-shouldered hawk have the potential to nest 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. There are direct impacts to 0.1 acre of suitable habitat (southern coast live oak riparian forest) as a result of the waterline (**Impact-BI-6**). A total of 22.5 acres of suitable nesting habitat would be retained in open space proposed by the project. Based on the County significance criterion 4.1(b), impacts to less than 5 percent of the suitable habitat on site are not considered significant.

As described in Section 1.4.6.2 above, white-tailed kite was observed flying over the site in 2005 and was observed again in September 2010 and October 2010. Although there is suitable nesting

in the woodland habitat described above, based on the low frequency of observations of this species during multiple years of wildlife surveys, its use of the project area is likely limited to opportunistically using the site for foraging.

There is no suitable nesting habitat for turkey vulture in the project area and sharp-shinned hawk does not nest in Southern California, but they could forage in the project area.

Two-Striped Garter Snake and Other Group 1 Reptiles

Direct impacts to two-striped garter snake, Northern red-diamond rattlesnake, Blainville's horned lizard, and orange-throated whiptail could occur as a result of the grading activities and activities within the fire buffer. Because reptiles are low-mobility species, impacts to individual species would be significant, absent mitigation (**Impact-BI-7**).

No additional Group 1 or state SSC special-status reptiles have been observed or have high potential to occur in the project area (see Appendix M for the potential to occur table).

Special-Status Mammals

Occupied habitat of the Northwestern San Diego pocket mouse and San Diego desert woodrat will be directly impacted through grading activities (Figure 8). 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 2 sensitive reptiles and mammals would be significant (**Impact-BI-7**) and mitigated on site at the County-required mitigation ratio within the proposed open space preservation area.

3.2.3 Project Effects Relevant to Guideline 4.1.C

3.2.3.1 Special-Status Plant Species (County List C and D Species; Other)

Populations of special-status plant species were mapped during 2005 and verified in 2010 along with the mapping of any new populations. These locations are shown on Figure 5a. 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 (Figure 8a). No mapped locations of prostrate spineflower, Palmer's grappling hook, Engelmann oak, or rush-like bristleweed will be directly impacted through grading activities or maintenance in the fire buffer.

Graceful tarplant is a CRPR 4.2 and County Group D species, which means it has a limited distribution in California and is fairly uncommon (CNPS 2011). It is found within the south coast

California floristic province (Hickman 1993). 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 are not expected to affect the overall conservation status of the species or impact the long-term survival of this plant. These impacts do not meet the County significance criterion 4.1(c) and are not considered significant.

3.2.3.2 Special-Status Wildlife Species (County Group 2)

The information provided below discusses the potential effects for County Group 2 species. More detailed information on their observations or potential to occur within the project area, suitable habitat, and range information is provided in Section 1.4.6.3.

Special-Status Reptiles

Coastal western whiptail could occur in upland shrubland or grassland areas. Reptiles are low-mobility species and direct impacts to these species could occur as a result of the grading activities and activities within the fire buffer. Based on County significance criterion 4.1(c), direct loss of species could impact the local long-term survival of these species; therefore, impacts to individual species would be significant, absent mitigation (**Impact-BI-8**).

No additional Group 2 special-status reptiles have been observed or have high potential to occur in the project area (see Appendix M for the potential to occur table).

Special-Status Riparian Birds

Great blue heron was observed in riparian scrub and forests in the project area. There are no direct impacts to suitable habitat in the project area. There are direct impacts to 0.1 acre of southern coast live oak riparian forest as a result of the waterline; however, a total of 22.5 acres of suitable nesting habitat would be retained in open space proposed by the project. Such a small amount of habitat loss would not appreciably affect the species in the project area and is, therefore, not considered a significant impact.

If any active nests or young are impacted through direct grading or activities within the fire buffer, these impacts would be considered significant because they are protected under the MBTA (see Section 7 for impact determination).

No additional Group 2 special-status riparian birds have been observed or have high potential to occur in the project area (see Appendix M for the potential to occur table).

Special-Status Upland Birds

Western bluebird has been observed in the project area. There are direct impacts to suitable grassland and woodland in the project area, including impact activities within the fire buffer. However, western bluebird is a common resident bird in San Diego County and is not considered special-status by state or federal agencies. Suitable nesting habitat is primarily located in oak woodland habitat outside of the development boundary. The direct loss of suitable habitat as a result of the proposed project would not impact the local long-term survival of these species; therefore, impacts to habitat for this species would not be considered significant based on County significance criterion 4.1(c)

If any active nests or young are impacted through direct grading or activities within the fire buffer, these impacts would be considered significant, because they are protected under the MBTA (see Section 7 for impact determination).

No additional Group 2 upland special-status birds have been observed or have high potential to occur in the project area (see Appendix M for the potential to occur table).

Special-Status Small Mammals

Mountain lion and mule deer are highly mobile species that could use a variety of habitats in the project area; direct mortality of individuals during construction is not expected to occur. There are direct impacts to suitable habitat in the project area, including impact activities within the fire buffer. However, these species have a low sensitivity status (County Group 2 species) 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; therefore, impacts to habitat for these species do not meet County significance criterion 4.1(c).

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; a small amount of suitable riparian woodland habitat for ringtail will be directly impacted (0.1 acre). 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; therefore, impacts to habitat for this species do not meet County significance criterion 4.1(c).

No additional Group 2 special-status mammals have been observed or have high potential to occur in the project area (see Appendix M for the potential to occur table).

Special-Status Invertebrates

Monarch butterfly was detected in the project area; however, there is no suitable wintering habitat in the project area; therefore, there are no impacts that meet the County significance criterion 4.1(c). No other special-status invertebrates are expected to occur in the project area.

3.2.4 Project Effects Relevant to Guideline 4.1.D

Based on the County significance criterion 4.1(d), the County 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. There are no 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 described above in Section 1.4.6.2, 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 that supports potential aestivation habitat adjacent to the San Luis Rey River (<0.1 acre). Based on the barriers that constrain movement (e.g., active ranch to the west; SR 76, active pastures, Pala Casino and associated parking lots to the south; development and residences to the east; and steep slopes on site adjacent to the Pala Creek crossing) located within 1 km of the known records, the area that is considered potential aestivation habitat is limited to areas along Gomez Creek where there is potential connectivity with the San Luis Rey River and the crossing at Pala Creek (Figure 5c). Within these areas, 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 activities, the waterline, or activities within the fire buffer (**Impact-BI-1**).

3.2.5 Project Effects Relevant to Guideline 4.1.E

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. However a nest survey was conducted in 2012 at and around the two locations provided to Dudek and no golden eagle nests or suitable nesting habitat was detected (Appendix J). 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.

There is a known eagle nest at Gregory Canyon, located in proximity to the project area. 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 to 16,000 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. Based on this analysis and in consultation with USFWS, recommendations of the USFWS for long-term monitoring of potential golden eagle use of the site have been incorporated in the Conceptual RMP prepared for this project. The proposed project would not result in take of golden eagle (i.e., reduction in breeding capacity of the known pairs in the vicinity of the project or take of a nest or nestlings due to foraging impacts); however, the loss of suitable foraging habitat is considered significant (**Impact-BI-6**). There are no direct impacts to golden eagle nests per the County significance criterion 4.1(e).

3.2.6 Project Effects Relevant to Guideline 4.1.F

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. A total of 165.1 acres of suitable foraging habitat would be retained in open space proposed by the project. Based on the County significance criterion 4.1(f), direct impacts to more than 5 percent of functional raptor foraging habitat are considered significant, absent mitigation (**Impact-BI-6**).

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 Figure 8a). 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 LBZs 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 the road 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. Impacts would be less than significant.

3.2.7 Project Effects Relevant to Guideline 4.1.G

The project area is located in an area that is dominated by undeveloped land and mixed-density developments that have allowed for the persistence of native wildlife populations. Core wildlife areas that are near the site include Mount Olympus to the north and San Luis Rey River to the south. As discussed in the existing conditions (Section 1.4.4), species richness in the project area is relatively high due to the property size and amount of undeveloped land and number 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 habitat types present in the project area. However, based on the results of multi-year and multi-species focused surveys, there is not a unique assemblage of wildlife species in the project area. In addition, the site does not support confirmed occupied habitat for any threatened and endangered species and in that sense, the site 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). For example, although several raptor species were observed utilizing habitats on the site, the number of individuals and number of species are not unexpectedly high for this region. Based on the observations during wildlife surveys, and the regional information, the project area is not considered critical to long-term viability of species in this region and is not considered a core area.

Gomez Creek is considered a local movement corridor and a sensitive habitat lands (SHL) defined under RPO. 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 overlaps the wetland buffer on the east side of Gomez Creek; however, this encroachment will be offset by buffer enhancements (see Section 4.2.5).

The project reduces the overall native habitat (including non-native grassland) by approximately 16 percent, but preserves approximately 84 percent (304 acres) of native habitat (including non-

native grassland) in on-site biological open space. The limits of grading, waterline, and fire buffer located within developed, disturbed, orchard, or agriculture make up 62 percent of the impact area. 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 that will be preserved in perpetuity in a conservation easement is configured in a manner that preserves multiple habitats and habitat linkages through the project area. As discussed above, the project area does not represent a core wildlife area, and 84 percent of native habitat will be preserved in on-site open space, which provides cover and habitat for a variety of species. In particular, 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. Therefore, the project does not meet the County significance criterion 4.1(g) and is not considered a significance impact.

3.2.8 Project Effects Relevant to Guideline 4.1.H

3.2.8.1 Special-Status Plant Species

Indirect impacts to special-status plants 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 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 plant species that have been observed in the project area (Appendix L) or those that could occur within 500 feet of the development (including rainbow manzanita, prostrate spineflower, graceful tarplant, Engelmann oak, Parry's tetracoccus, rush-like bristleweed, and Palmer's grappling hook) resulting from project implementation could affect these special-status species and would be considered significant per the County significance criterion 4.1(h) due to the likelihood for disturbance of these resources (**Impact-BI-9**).

Potential long-term indirect impacts to sensitive plant species 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 several potentially adverse edge conditions, including preserving edges perimeter distance, extending trails into project open space, directing drainage towards open space, and directing lighting toward open space, long-term indirect impacts would likely occur. These long-term indirect impacts to

special-status plant species (Appendix L) resulting from project implementation would be considered significant per the County significance criterion 4.1(h) (**Impact-BI-10**).

3.2.8.2 Special-Status Wildlife Species

Construction-related noise, dust, runoff, erosion, and other edge effects are potential sources of indirect impacts on special-status wildlife species (Appendix M). Motion detector security lighting may be used around construction storage and staging areas, but there will be no night construction associated with the project. It is assumed that standard construction BMPs and construction-related minimization measures to lighting, control noise, dust, erosion, and runoff will be implemented and will reduce these effects. In the absence of these BMPs and construction-related minimization measures to control lighting, dust, noise, erosion, and runoff, indirect impacts to wildlife species could occur and would be significant per the County significance criterion 4.1(h), because these biological resources are considered special-status by federal, state, and local agencies (**Impact-BI-11**).

The special-status wildlife 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. Species that could be impacted by potential long-term indirect impacts include those identified in Appendix M that have been observed or have high potential to occur. In addition, 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, 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 (e.g., fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, fire, hydrological changes (e.g., 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. Although the project is designed to minimize several potentially adverse edge conditions, including preserve edges perimeter distance, trails extending into project open space, drainage directed towards open space, and lighting directed toward open space, long-term indirect impacts would likely occur.

In particular, cactus wren within project open space will be subject to specific 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.

Without compliance with the existing plans, programs, and policies, potential long-term indirect impacts to all potentially occurring special-status wildlife could occur and are considered significant per the County significance criterion 4.1(h), because these biological resources are considered sensitive by federal, state, and local agencies (**Impact-BI-12**).

Long-term indirect impacts to nesting native birds protected under the MBTA would be considered significant, because they are protected under the MBTA (see Section 7 for impact determination).

Since no suitable habitat for Hermes copper butterfly was found within 500 feet of the proposed limits of grading, there are no indirect impacts anticipated to this species.

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 Figure 8a). The primary indirect effect would be increased human presence in proximity to potential nesting areas. Potential short-term and long-term indirect impacts to roosting and nesting habitat for raptors would be considered significant per the County significance criterion 4.1(h) (**Impacts BI-13 and BI-14**).

Indirect impacts to USFWS-designated critical habitat for the federally and state-listed species would be similar to those for vegetation communities (see Section 4.2.2 below). Because the designated critical habitat for arroyo toad and California gnatcatcher is not occupied, indirect impacts to critical habitat would not be considered significant. Critical habitat for least Bell's vireo is located south of SR 76, and critical habitat for the southwestern willow flycatcher is located in the San Luis Rey River (Figure 6).

The off-site portion of the waterline could result in short-term, indirect impacts associated with noise and increased human presence if construction occurred during the nesting season. The proposed off-site sewer line could result in short-term, indirect impacts associated with noise and increased human presence if the construction occurred during the nesting season, including potential indirect impacts to least Bell's vireo and southwestern willow flycatcher. Impacts associated with the off-site project activities would be considered a significant impact (**Impact-BI-15**).

3.2.9 Project Effects Relevant to Guideline 4.1.I

No burrowing owls have been detected in the project area; therefore, there are no impacts to occupied burrowing owl habitat.

3.2.10 Project Effects Relevant to Guideline 4.1.J

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

3.2.11 Project Effects Relevant to Guideline 4.1.K

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 impacts to potential suitable habitat for this species.

3.2.12 Project Effects Relevant to Guideline 4.1.L

County significance criterion 4.1(l) specifically 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 Sections 3.2.1 and 3.2.2. 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 (see **Impact-BI-11** and **Impact-BI-13**). Construction noise is a potential indirect impact to these species if they occur within or adjacent to the project area. Long-term indirect impacts to roosting and nesting habitat for raptors are considered a significant impact (see **Impact-BI-14**).

Indirect impacts to cactus wren are considered significant, absent mitigation (see **Impact-BI-11** and **Impact-BI-12**). The focused surveys for California gnatcatcher were negative and the closest record for this species is 1 mile east of the project boundary; no indirect impacts from noise are anticipated due to its distance from the limits of grading. The focused surveys for least Bell's vireo and southwestern willow flycatcher were negative; however, the San Luis Rey River provides habitat, and they are known to occur there. 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**). Light-footed clapper rail occurs near the coast approximately 16 miles southwest of the project area, and no indirect impacts from noise will occur.

3.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they will be discussed thoroughly in the proposed project's EIR.

3.4 Mitigation Measures and Design Considerations

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 **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 (RMP); 3) Vector control by written order of the County; and 4) Construction, use, and maintenance of approved multi-use, non-motorized trails.

M-BI-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 Department of Planning and Development Services (DPDS) or California Department of Pesticide Regulation (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.

M-BI-3 **Resource Avoidance Areas/Pre-construction Survey – Arroyo Toad.** In order to minimize impacts to listed species pursuant to the RPO and Endangered Species Act (ESA), pre-construction 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).

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

M-BI-5 **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.

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; no more than $30,000). 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 Department of Planning and Development Services (DPDS) 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 DPDS. If the off-site mitigation is proposed to be owned and/or managed by Department of Pesticide Regulation (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 DPDS 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 DPDS that DPR agrees to this proposal. It is recommended that the applicant submit the mitigation proposal to the DPDS, 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 DPDS.

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 DPDS shall review the mitigation purchase for compliance with this condition. Upon request from the applicant, DPDS can pre-approve 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 DPDS shall accept an application for an RMP, and DPDS 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 DPDS and substantiated through a biological monitoring compliance report submitted to DPDS.

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 **M-BI-1** and **M-BI-2**), would conserve 139.9 acres of suitable habitat for California gnatcatcher in an on-site open space easement.

M-BI-6 **Resource Avoidance Areas/Pre-construction 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 Department of Planning and Development Services (DPDS) 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.

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**), would conserve 1.9 acres of suitable habitat for cactus wren in an on-site open space easement.

M-BI-7 **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.

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) habitat 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 Department of Planning and Development Services (DPDS) 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 DPDS 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 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 DPDS 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 DPDS and the CDFW. If the off-site mitigation is proposed to be owned and/or managed by Department of Pesticide Regulation (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 DPDS 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 DPDS that DPR agrees to this proposal. It is recommended that the applicant submit the mitigation proposal to the DPDS, 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 DPDS.

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 DPDS shall review the mitigation purchase for compliance with this condition. Upon request from the applicant, DPDS can pre-approve 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 DPDS shall accept an application for an RMP, and DPDS shall review the RMP submittal for compliance with this condition and the RMP Guidelines.

M-BI-8 **Resource Avoidance Areas/Pre-construction 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 Department of Planning and Development Services (DPDS) 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.

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

Implementation of the proposed project has the potential to impact 108 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**) 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 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**) 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 1 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 acres of southern coast live oak riparian forest or avoidance of impacts.

Impact-BI-8 (County Group 2 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 2 species). The following mitigation is proposed:

The Biological Easement and RMP (See **M-BI-1** and **M-BI-2**) 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 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 (DPW) or bond separately with the Department of Planning and Development Services (DPDS).

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 pre-construction meetings and other meetings to discuss construction requirements. Such meeting shall include the DPDS 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 DPDS, 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.

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 DPDS 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 DPDS Permit Compliance Section within 24 hours; 8) produce periodic (monthly during grading) and final reports and submit to DPDS (final report will release bond); 9) confer with the Wildlife Agencies and DPDS 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).

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 DPDS, Permit Compliance Section. Upon approval, the fencing shall remain in place until the conclusion of grading activities after which the fencing shall be removed.

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:

The Biological Easement and RMP (See **M-BI-1** and **M-BI-2**) which conserve 359 acres of habitats in an on-site open space easement, and **M-BI-10**:

M-BI-10 **Limited Building Zone (LBZ) Easement.** In order to protect sensitive biological resources in the adjacent biological open space easement, pursuant to the RPO and CEQA, a LBZ 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.

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."

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 Department of Planning and Development Services (DPDS). Split-rail fencing will be installed along the trail where parallel to the Gomez Creek corridor.

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.

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.

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 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.

3.5 Conclusions

Pursuant to Appendix G of the State CEQA Guidelines (14 CCR 15000 et seq.) and the County's additional significance criteria, impacts to special-status plant and wildlife species were analyzed and are described above. Below is a summary of each significant impact and how the proposed mitigation measures reduce these impacts to less than significant.

3.5.1 Summary of Impacts to Special-Status Plants

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 LBZ 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.

3.5.2 Summary of Impacts to Special-Status Wildlife Species

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. 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. The Biological Easement will include 18.6 acres of potential aestivation habitat and 1.3 acres of potential arroyo toad breeding habitat.

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-5** 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, and 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**, **M-BI-2**, and **M-BI-6** 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 1 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 2 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 (*Neotoma lepida intermedia*). Impacts would be reduced through the preservation, restoration, and management of suitable habitat within the biological open space. These measures conserve and manage potential habitat and, 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-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 LBZ 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 LBZ 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.

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4 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

4.1 Guidelines for the Determination of Significance

The County Guidelines used to determine significance for impacts to riparian habitat or sensitive natural communities include County Guideline 4.2, described in its entirety in Section 2.2.2. The analysis of the vegetation communities are provided below in Section 4.2.

4.2 Analysis of Project Effects

4.2.1 Project Effects Relevant to Guideline 4.2.A

Direct impacts to vegetation communities would occur during grading activities as well as during vegetation removal within the proposed fire buffers. Table 5 in Section 2.1 shows the acreage of direct impacts to upland vegetation communities in the project area as a result of the limits of grading, as well as the proposed waterline and the portion of the proposed fire buffer that extends beyond the limits of grading (Figure 8a).

Direct impacts will occur to the following special-status upland communities: Diegan coastal sage scrub (including disturbed), southern mixed chaparral, non-native grassland, and extensive agriculture (pasture land) (**Impact-BI-16a** through **Impact-BI-16e**). Impacts to these communities would be considered significant, absent mitigation per the County significance criterion 4.2(a). In addition, although not recognized as a community by Oberbauer (Oberbauer et al. 2008), southern cactus scrub provides habitat for the special-status cactus wren and is considered a sensitive habitat land under RPO, and impacts to 2.7 acres of this community would be considered significant, absent mitigation (**Impact-BI-16a** and **Impact-BI-16b**). Impacts to coastal sage scrub are further discussed in Section 7.2, below.

The County (2010a) requires a 50-foot oak root protection zone established around the oak woodlands in the project area. Approximately 32.6 acres of this zone is located within open space; 0.5 acre is located within the proposed waterline. There is no significance criteria associated with the oak root zone provided in the County significance guidelines (2010b); however, the format requirements (County of San Diego 2010a) state that impacts within mapped oak woodland or oak root protection zone must be mitigated at a 3:1 ratio with oak woodland habitat. Based on this criterion, 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 of will be mitigated through a combination of habitat creation and restoration.

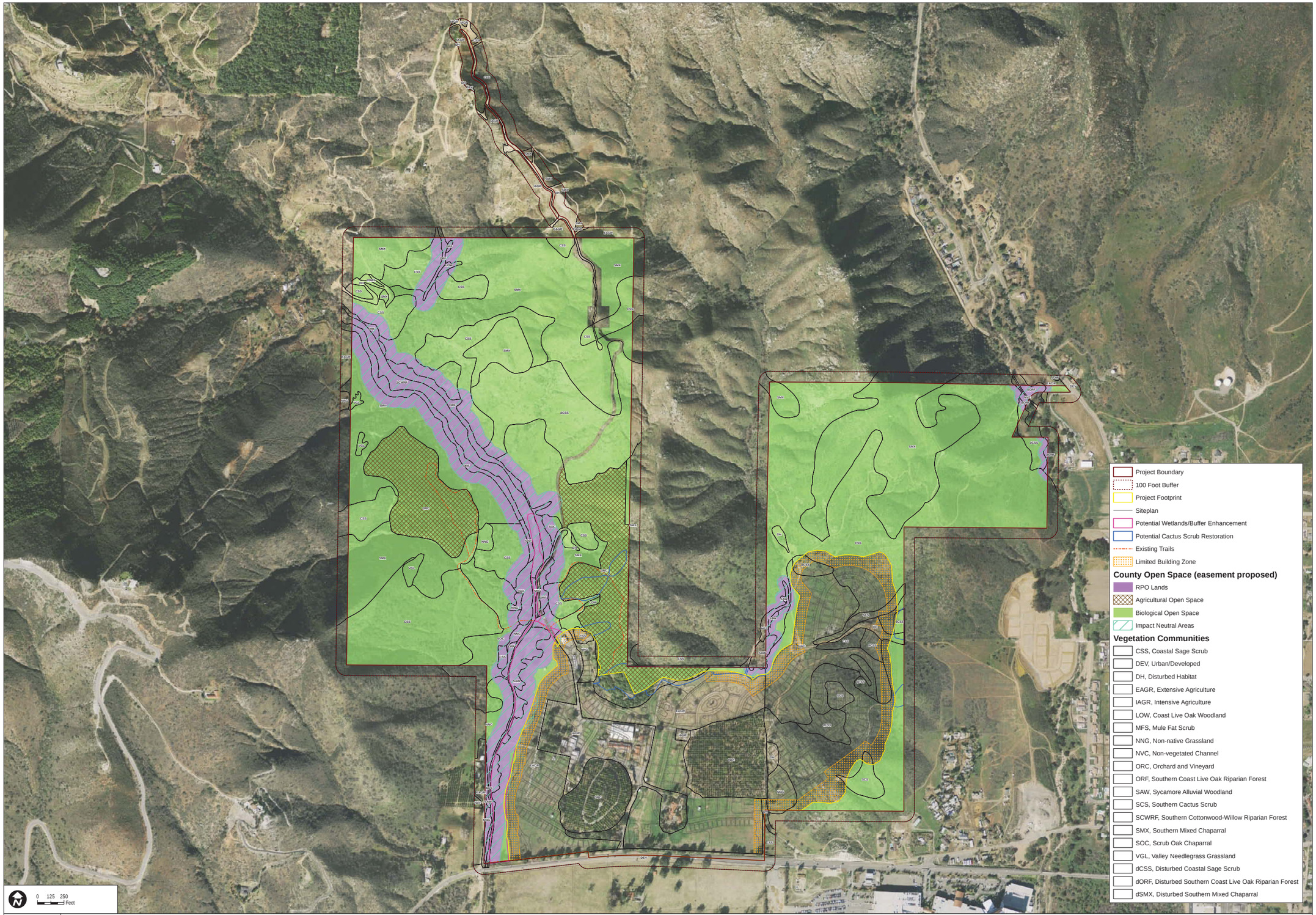
Table 8 provides a summary of the direct impacts associated with the project, the required mitigation ratio, and the vegetation communities within open space on site.

The proposed project includes on-site open space that provides adequate mitigation for most project impacts. Table 8 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 biological open space and impact neutral 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 (County of San Diego 2010a, 2010b), 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. Areas that are designated as impact neutral are shown on Figure 10 and are not included in the project open space acreage that is used toward mitigation.

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 project site. Currently, the northwestern portion of the project site has existing trail on existing dirt roads to allow access to the existing orchards and a proposed waterline and water tank located 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' 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.



DUDEK

6653-01

SOURCE: DigitalGlobe 2008
Note: Open Space will not be phased

FIGURE 10

Biological Open Space

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In addition, 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. In particular, much of the coastal sage scrub on the Warner Ranch project site has relatively low shrub cover (approximately 30-60 percent, see Section 1.4.2.1). This openness provides resources for species that typically utilize non-native grassland. For example, 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 (Tesky 1994).

On-site biological open space is deficient 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 on Figure 10.

Table 8
Summary of Impacts, Mitigation, and On-Site Open Space for Upland Vegetation Community and Land Cover Types

Habitat Types/ Vegetation Communities	Total Impacts (Ac.)	Mitigation Ratio[1] (Mitigation Required (Ac.))	Biological Open Space Mitigation (Ac.)	Impact Neutral (Ac.)	Mitigation (Deficit)/ Excess (Ac.)	Notes regarding additional mitigation
Upland Scrub						
Southern cactus scrub	2.7	2:1 (5.4)[2]	1.9	—	(3.5)	On-site restoration and/or off-site land conservation
Diegan coastal sage scrub	27.0	2:1 (54.0)	114.0	8.1	71.8	
Disturbed Diegan coastal sage scrub	6.1	2:1 (12.2)	24.0	0.9		
Subtotal	*35.8*					
Upland Woodland and Savannah						
Scrub oak chaparral	—	N/A	5.7	2.3	5.7	
Granitic southern mixed chaparral	2.3	0.5:1 (1.1[3])	73.0	10.6	102.3	
Disturbed granitic southern mixed chaparral	—	N/A	0.2	—		
Mafic southern mixed chaparral	—	—	30.2	—		
Coast live oak woodland	—	N/A	0.2	0.2	(1.0)	This 0.2 acre will be used to mitigate for impacts to oak root protection zones.
Subtotal	*2.3*					

Table 8
Summary of Impacts, Mitigation, and On-Site Open Space for Upland Vegetation Community and Land Cover Types

Habitat Types/ Vegetation Communities	Total Impacts (Ac.)	Mitigation Ratio[1] (Mitigation Required (Ac.))	Biological Open Space Mitigation (Ac.)	Impact Neutral (Ac.)	Mitigation (Deficit)/ Excess (Ac.)	Notes regarding additional mitigation
Upland Grassland						
Valley needlegrass grassland	—	N/A	1.2	—	0	This will be counted toward mitigation for non-native grassland
Non-native grassland	20.3	0.5:1 (10.2)	3.5	3.8	(6.7)	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 the excess coastal sage scrub (including disturbed) on site which are of similar habitat function and value.
Subtotal	*20.3*					
Non-Natural Land Covers						
Extensive agriculture	50.0	0.5:1 (25.0)	1.9	7.0	0	This mitigation requirement will be mitigated through the on-site preservation of excess coastal sage scrub (including disturbed).
Intensive agriculture	17.3	None	—	—	—	
Developed	2.4	None	—	—	—	
Disturbed	2.3	None	2.0	0.2	—	
Orchard	24.0	None	42.0	2.2	—	
Subtotal	*96.0*					

Table 8
Summary of Impacts, Mitigation, and On-Site Open Space for Upland Vegetation Community and Land Cover Types

Habitat Types/ Vegetation Communities	Total Impacts (Ac.)	Mitigation Ratio[1] (Mitigation Required (Ac.))	Biological Open Space Mitigation (Ac.)	Impact Neutral (Ac.)	Mitigation (Deficit)/ Excess (Ac.)	Notes regarding additional mitigation
Other						
Oak root protection zone[4]	0.4	3:1 (1.2)	N/A	N/A	(1.0)	0.2 acre of coast live oak woodland will count toward mitigation for this impact.
Total	**154.4**	**N/A**	**299.7**	**35.4**	**N/A**	

1 Based on the County of San Diego Guidelines (County of San Diego 2010b).
2 The County of San Diego Guidelines do not specify a mitigation ratio for this community because it is not recognized under Holland (1986) or Oberbauer et al. (2008). Because this has the potential to support special-status species, a mitigation ratio of 2:1 is proposed.
3 The required mitigation for this excludes the 0.1 acre of chaparral located within the oak root protection zone, which is mitigated at a 3:1 ratio.
4 Oak root zone is overlaid on the biological resources and is not counted toward the overall acreage.

4.2.2 Project Effects Relevant to Guideline 4.2.B

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 acreage of impacts to wetlands and waters are described in Table 7 in Section 2.1.

The non-wetland drainages located in upland habitat do not meet the County's definition of an RPO wetland; the drainages in the east–central portion of the site will be impacted by proposed grading. There are impacts to 0.10 acre of southern coast live oak riparian forest as a result of the proposed waterline. However, this impact is located within an existing ranch road, and potential impacts to vegetation would be limited. It is expected that during final design, impacts to vegetation may be avoided. Jurisdictional wetlands and waterways under the jurisdiction of the U.S., state, or County require mitigation for direct impacts. Impacts to the non-wetland drainages and potential impacts to the southern coast live oak riparian forest would be considered significant, absent mitigation per the County significance criterion 4.2(b) (**Impact-BI-17a** and **Impact-BI-17b**, respectively).

Impacts and required mitigation are shown in Table 9.

Table 9
Mitigation for Waters of the U.S./State/County

Habitat Types/ Vegetation Communities	Total Impacts	Mitigation Ratio (Mitigation Required (Ac.))	Mitigation Deficit[1]	Notes
CDFW and County				
Southern coast live oak riparian forest	0.10[2]	3:1 (0.30)	(0.30)	This impact will be avoided or will be mitigated through 1:1 creation and 2:1 enhancement in the project area or off site within the San Luis Rey River (County of San Diego 2007).
CDFW Only				
Non-wetland drainage	0.03	1:1 (0.03)	(0.03)	This impact will be mitigated through habitat creation at a 1:1 ratio in the project area or off site within the San Luis Rey River.
Total	**0.13**	**N/A**	**0.33**	—

1 In order to meet the "no net loss" requirement for impacts to waters of the U.S./state, preservation of RPO wetlands in open space are impact neutral and do not count toward mitigation.

2 This impact is also considered an impact to the oak root zone; however, this vegetation community and impacts within the oak root zone both require a 3:1 mitigation ratio. Therefore, it is not discussed separately.

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**).

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**).

4.2.3 Project Effects Relevant to Guideline 4.2.C

Groundwater is not addressed in this 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.

4.2.4 Project Effects Relevant to Guideline 4.2.D

Indirect impacts to special-status upland vegetation communities 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 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 resulting from project implementation would be considered significant per the County significance criterion 4.2(d) due to the likelihood for disturbance of these resources (**Impact-BI-20**).

Potential long-term indirect impacts to special-status upland 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**).

4.2.5 Project Effects Relevant to Guideline 4.2.E

As described in Section 2.2.2, 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 1.4.7.1 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 100-foot wetland buffer is proposed for RPO wetlands along Gomez Creek; and a 50-foot buffer is maintained for RPO wetlands along Pala Creek and the isolated wetlands in the project area. More detail regarding these buffers is provided below.

Based on the *Fire Protection Plan* (FIREWISE 2000, Inc. 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. Based on the *Fire Protection Plan* (FIREWISE 2000, Inc. 2011), 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 (FIREWISE 2000, Inc. 2011).

Gomez Creek

Gomez Creek requires a 100-foot RPO wetland buffer. There are three areas where development will encroach within the 100-foot RPO wetland buffer. All RPO wetlands along Gomez Creek have at least a 50-foot buffer between the proposed fire buffer and outer edge of sycamore alluvial woodland. 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. Figure 8a 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.

Based on the existing functions and values assessment, the constrained nature of Gomez Creek in the southern portion of the project area, and the vegetation in the fire buffer, the proposed buffers meet the County's buffer requirement for RPO wetlands by providing adequate protection of the functions and values of the existing wetlands. Therefore, the project does not meet the County significance criterion 4.2(e) and the impact is not significant. There is a small impact from the limits of grading (<0.1 acre), fire buffer (0.6 acre), and waterline (0.6 acre) to this RPO wetland buffer. The limits of grading impact is very small; the proposed waterline is located primarily within an existing ranch road, and potential impacts to vegetation would be limited to vegetation directly adjacent to 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 extensive agriculture will not degrade the quality of the wetland buffer and the functions will remain the same. Therefore, this impact is 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 4.2.B: Jurisdictional Wetlands/Waters and mitigation **M-BI-5**.

The placement of the waterline within the existing access road minimizes further disturbance of habitat. Shapouri & Associates analyzed placing the waterline in other access roads within the orchard; however, due to the proposed grading and steep cut slopes, this revised alignment outside of the RPO buffers would not be feasible (Shapouri 2013 – Appendix N). Shapouri & Associates also analyzed shifting the proposed development easterly to avoid the small encroachment of the development into the fire buffer; 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).

The project includes a trail that follows along the existing paved road 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 isolated wetlands follows along an existing dirt path and overlaps slightly with the 50-foot wetland buffer.

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;
2. Shapouri & Associates analyzed placing the waterline in other access roads within the orchard; however, due to the proposed grading and steep cut slopes, this revised alignment outside of the RPO wetland buffer would not be feasible (Shapouri 2013 – Appendix N of the Biological Resources Report). Shapouri & Associates also analyzed shifting the proposed development easterly to avoid the small encroachment of the development into the fire buffer; 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). 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 the road, and no additional impacts to vegetation are required. Alternatives to this trail location would impact existing vegetation and are therefore not considered feasible. The crossings are limited to the minimum number feasible;

   No wetland crossings are proposed. The three encroachments (waterline grading, fire buffer, and trail) occupy the minimum area feasible to meet infrastructure requirements.

3. 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.

4. 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.

5. 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.

6. 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 is proposed for wetlands buffer encroachments in the form of enhancement of the affected buffer through native habitat revegetation (see Appendix O). 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.

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 the road, and no additional impacts to vegetation are required. Alternatives to this trail location would impact

existing vegetation. Based on this information, the trail alignment/crossing would be permitted under RPO and does not meet the County significance criterion 4.2(e).

Pala Creek

The Pala Creek has a low to moderate value as a RPO wetland based on its functions and values described above in Section 1.4.7.1. A 50-foot RPO wetland buffer is shown on Figure 10. 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 and are described above in Section 1.4.7.1. Based on the results of the jurisdictional delineation, these wetlands do not have a significant nexus through surface or groundwater to waters of the U.S. 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 is proposed for this RPO and is shown on Figure 10. This buffer meets the County significance criterion 4.2(e).

4.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they will be discussed thoroughly in the proposed project's environmental impact report (EIR).

4.4 Mitigation Measures and Design Considerations

The following mitigation measures are provided to minimize and mitigate impacts to vegetation communities and jurisdictional wetlands/waters.

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:

See **M-BI-1**, above, which conserves 359 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:

See **M-BI-1** and **M-BI-2**, above, which conserves 359 acres of habitat in an on-site open space easement, including 138 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:

See **M-BI-1** and **M-BI-2**, above, which conserve 359 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:

See **M-BI-1** and **M-BI-2**, above, which conserve 359 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:

See **M-BI-1** and **M-BI-2**, above, which conserve 359 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 0.13 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 acres of southern coast live oak riparian forest or avoidance of impacts.

M-BI-12 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 Department of Planning and Land Use (DPDS) for compliance.
3. Timing: Prior to approval of any grading and or improvement plans and issuance of any Grading or Construction Permits.

Monitoring: The DPDS 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.

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:

See **M-BI-1**, **M-BI-2**, and **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.

4.5 Conclusions

Pursuant to Appendix G of the State CEQA Guidelines (14 CCR 15000 et seq.) and the County's additional significance criteria, impacts to riparian vegetation or special-status communities were analyzed and are described above. Below is a summary of each significant impact and how the proposed mitigation measures reduce these 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**, **M-BI-5**, 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 LBZ 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 I**mpact-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 LBZ 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.

5 JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 Guidelines for the Determination of Significance

The County Guidelines used to determine significance for impacts to jurisdictional wetlands and waterways include County Guidelines 4.2 and 4.3, described in its entirety in Sections 2.2.2 and 2.2.3. The analysis of the jurisdictional wetlands and waterways are provided below in Section 5.2.

5.2 Analysis of Project Effects

5.2.1 Project Effects Relevant to Guideline 4.3

Impacts to jurisdictional wetlands and waters are discussed in Sections 4.2.B. There are no impacts to federally regulated wetlands; therefore, there are no impacts based on the County Guidelines 4.3 (County of San Diego 2010b). Direct impacts to 0.13 acre (861 linear feet) of waters under the jurisdiction of the County and/or CDFW are described in Section 4.2.B.

5.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they will be discussed thoroughly in the proposed project's EIR.

5.4 Mitigation Measures and Design Considerations

Mitigation for potential short-term and long-term direct impacts to jurisdictional wetlands and/or waters are described in Section 4.2.B. Mitigation for potential short-term and long-term indirect impacts are described in Section 4.2.B.

5.5 Conclusions

See Section 4.5.

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6 WILDLIFE MOVEMENT AND NURSERY SITES

6.1 Guidelines for the Determination of Significance

The County Guidelines used to determine significance for impacts to wildlife movement and nursery sites include County Guideline 4.4, described in its entirety in Section 2.2.4. The analysis of the wildlife movement and nursery sites are provided below in Section 6.2.

6.2 Analysis of Project Effects

6.2.1 Project Effects Relevant to Guideline 4.4.A

Gomez Creek and Pala Creek could 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 Creek connects to the San Luis Rey through a culvert under Pala Mission Road and SR 76.

There are no impacts to Gomez Creek or Pala Creek, and an appropriate wetland buffer, LBZ easement, fire protection zone, and topographic relief from the development zone will be in place between the development and Gomez Creek. In addition, portions of the extensive agriculture within the RPO wetland buffer along Gomez Creek will be enhanced with native vegetation (see Section 4.2.5). Therefore, existing habitat linkages and wildlife corridor functions will remain after the build-out of the proposed project. Wildlife is free to move through Gomez Creek and Pala Creek in its current condition and movement is not expected to be reduced by implementation of the project. Current wildlife movement through the area is expected to be preserved through a 50- to 200-foot wetland buffer; 100 foot LBZ easements; and fire protection zones, which would entail vegetation thinning but allow for presence of some native shrubs; and the topographic relief that will be provided by the project between the development area and the creek. Therefore, the project does not meet the County significance criteria 4.4(a).

6.2.2 Project Effects Relevant to Guideline 4.4.B

As discussed in Section 3.2.7, the project area is located in an area that is dominated by undeveloped land and mixed-density developments that have allowed for the persistence of native wildlife populations. Core wildlife areas that are near the site include Mount Olympus to the north and San Luis Rey River to the south. The proposed project is designed to preserve large blocks of undeveloped, native habitat in on-site open space. Much of the project footprint is located within existing ranch areas, which include orchards, ranch buildings, and agriculture 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 would not be a significant impact.

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 (ADT) to 29,265 ADT. 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. Potential adverse impacts to wildlife movement along Gomez Creek are a significant impact due to the importance of wildlife movement between areas north and south of the project site (**Impact–BI-22**).

6.2.3 Project Effects Relevant to Guideline 4.4.C

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 (see Section 1.4.8). The proposed project would not create any artificial wildlife corridors and would not be a significant impact.

6.2.4 Project Effects Relevant to Guideline 4.4.D

Potential indirect impacts to Gomez Creek could occur east of the creek where the residential development is proposed. 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; therefore, impacts are less than significant.

6.2.5 Project Effects Relevant to Guideline 4.4.E

The Gomez Creek riparian corridor varies from an unrestricted width upstream to 200 feet wide as it narrows near SR 76 and 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 project 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.

6.2.6 Project Effects Relevant to Guideline 4.4.F

As described in Section 4.2.5, 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 would not be considered a significant impact.

6.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they will be discussed thoroughly in the proposed project's EIR.

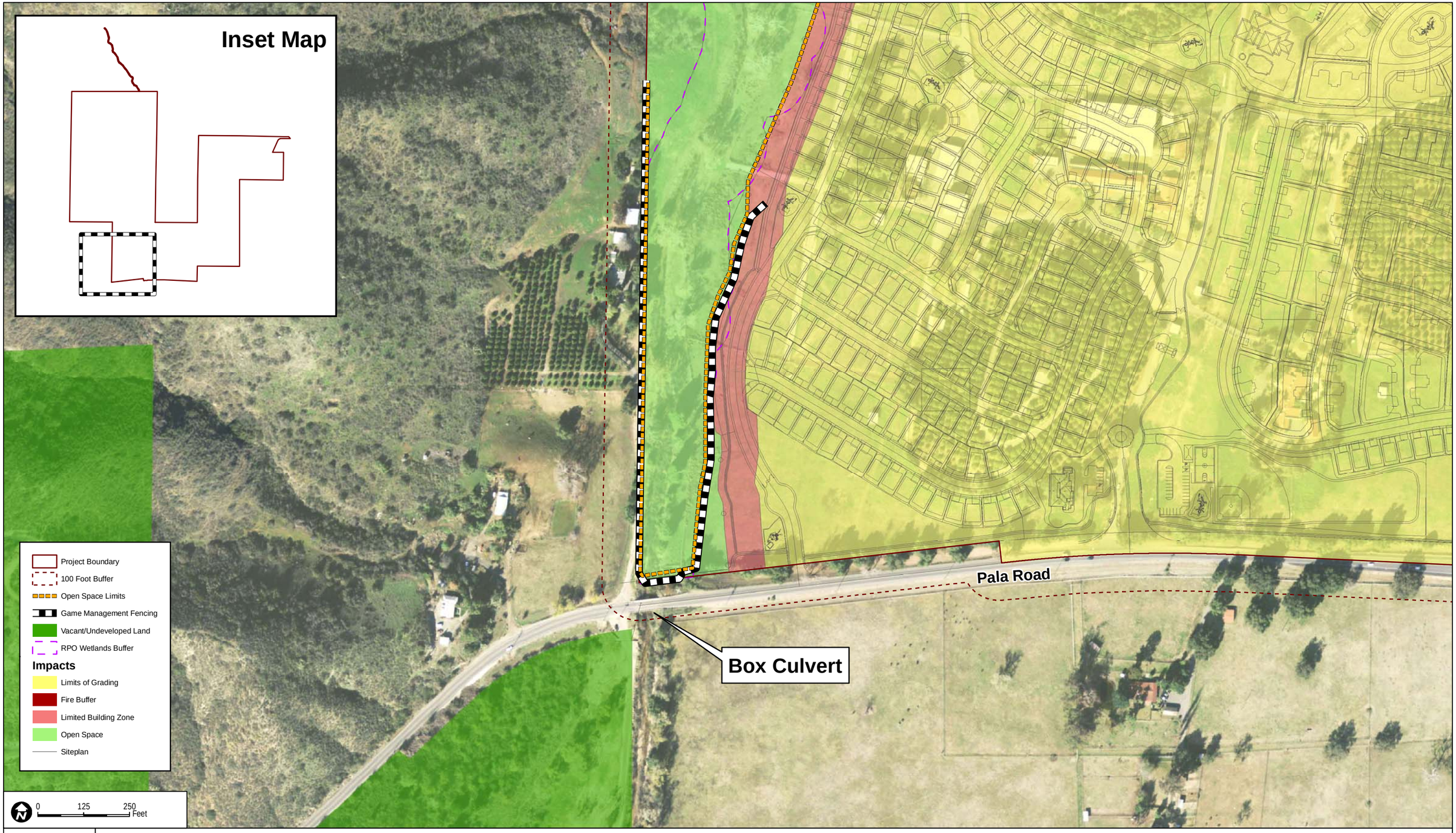
6.4 Mitigation Measures and Design Considerations

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 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 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 (Figure 11). The mesh will include approximately 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, and be maintained in place for at least a period of 5 years following buildout of the project. Monitoring may continue at the description of the open space land manager, as deemed necessary to provide information for adaptive management. Photos will be evaluated and reported to Department of Planning and Development Services (DPDS) on a quarterly basis. An annual report will provide a summary of monitoring results and any proposed adaptive management measures related to the directive fencing.



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SOURCE: DigitalGlobe 2008; SANGIS 2014

FIGURE 11

Wildlife Movement

Warner Ranch - Biological Technical Report

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6.5 Conclusions

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, which will reduce the number of wildlife at-grade crossing of SR 76, and therefore, reduce the incidence of wildlife-vehicle collisions. Finally, a wildlife camera monitoring program will provide data to adaptively manage the wildlife fencing to ensure effectiveness.

There are no significant impacts associated with habitat linkages and wildlife corridors.

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7 LOCAL POLICIES, ORDINANCES, ADOPTED PLANS

7.1 Guidelines for the Determination of Significance

The County Guidelines used to determine significance for impacts to local policies, ordinances, or adopted plans include County Guideline 4.5, described in its entirety in Section 2.2.5. The analysis of the policies, ordinances, or plans are provided below in Section 7.2.

7.2 Analysis of Project Effects

The County has guidelines for regulating biological resources within San Diego County. As described in Section 1.5.3, the County RPO identifies environmental resources that require protection and identifies measures to preserve these resources. Some of these resources include coastal sage scrub, wetlands and wetland buffers, and sensitive habitat lands.

7.2.1 Project Effects Relevant to Guideline 4.5.A

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. Impacts to 26.9 acres of coastal sage scrub and 6.1 acres of disturbed coastal sage scrub are discussed in Section 4.2, and are considered significant impacts. This impact does not impact coastal sage scrub in excess of the County's 5 percent habitat loss threshold; therefore, it does not meet the significance criterion 4.5(a).

7.2.2 Project Effects Relevant to Guideline 4.5.B

The proposed project is located outside of the adopted MSCP and is planned in accordance with the draft NCMSCP. According to the County, the draft NCMSCP designates the project area as draft future PAMA (Figure 7a) (County of San Diego 2005, 2009). The MSCP requires preservation of 75 percent of areas designated as draft future PAMA, and the proposed project would preserve 70 percent of these areas. However, the proposed project has been designed in consultation with the Resource Agencies to avoid high value resource areas (such as Gomez Creek and cactus wren localities), provides approximately 84 percent preservation of native habitats on site, and therefore would not preclude or prevent the preparation of the subregional NCCP and would not be a significant impact.

7.2.3 Project Effects Relevant to Guideline 4.5.C

In the project area, RPO resources include wetlands, wetland buffers, and sensitive habitat lands. Impacts to jurisdictional waters and wetlands are discussed in Section 4.0. There are impacts to approximately 1.2 acres of RPO lands, which are portions of the wetland buffers located within the

fire buffer and waterline (1.2 acres) and less than 0.1 acre is within the limits of grading. As discussed above in Section 4.2.5, impacts to RPO wetland buffers are not considered significant.

Sensitive habitat lands on site include the southern cactus scrub and the Gomez Creek riparian corridor. There are also impacts to 2.7 acres of southern cactus scrub which is considered a sensitive habitat lands. Shapouri & Associates analyzed the feasibility of avoiding impacts to all of the southern cactus scrub on site (Shapouri 2013 – Appendix N). The preservation of the 2.7 acres of southern cactus scrub would result in a reduction of approximately 60 residential lots, which would make the project economically infeasible (Shapouri 2013 – Appendix N). Direct and indirect impacts to southern cactus scrub are discussed in Section 4.2.1 and 4.2.4, and are considered a significant impact (refer to **Impact-BI-16a**, **Impact-BI-20**, and **Impact-BI-21**). Direct impacts to the Gomez Creek riparian corridor are described in Section 4.2.5; direct and indirect impacts to jurisdictional resources are described in Section 4.2.2 (refer to **Impact-BI-17a**, **Impact-BI-17b**, **Impact-BI-18**, and **Impact-BI-19**).

7.2.4 Project Effects Relevant to Guideline 4.5.D

The 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 (CDFG and CRA 1993b); therefore, the project does not meet the County significance criteria 4.5(d).

7.2.5 Project Effects Relevant to Guideline 4.5.E

There are no Habitat Conservation Plans (HCP), Habitat Management Plans (HMP), or Special Area Management Plans (SAMP) associated with the Warner Ranch project. The proposed project conforms to the goals and requirements as outlined in all applicable regional planning efforts. Therefore, there are no impacts related to County significance criterion 4.5(e).

7.2.6 Project Effects Relevant to Guideline 4.5.F

Since the Draft NCMSCP has not yet been adopted, the project does not analyze resources defined in the BMO. Therefore, there are no impacts related to County significance criterion 4.5(f).

7.2.7 Project Effects Relevant to Guideline 4.5.G

The coastal sage scrub (including disturbed) that would be impacted by the proposed project is considered Intermediate Value (see Section 1.4.2). The 81.6 percent of the coastal sage scrub in the project area will be preserved in an open space easement and function as connectivity between coastal sage scrub communities in the region. The project would not preclude the connectivity between areas of high habitat value and is not a significant impact.

7.2.8 Project Effects Relevant to Guideline 4.5.H

Since the draft NCMSCP has not yet been adopted, the project does not analyze resources defined in the BMO.

7.2.9 Project Effects Relevant to Guideline 4.5.I

The project does not impact MSCP narrow endemic species per County significance criteria 4.5(i) and is not considered a significant impact.

7.2.10 Project Effects Relevant to Guideline 4.5.J

All special-status plant and wildlife species are discussed in Section 3.2. No listed species have been documented breeding on site, despite focused surveys. Potential impacts to arroyo toad are included in Section 3.2 (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; therefore, the project does not meet the County significance criteria 4.5(j) and is not considered a significant impact.

7.2.11 Project Effects Relevant to Guideline 4.5.K

The County also regulates impacts per the MBTA. Any impacts to avian species protected under the MBTA would be considered significant, per County significance criterion 4.5(k) (**Impact-BI-23**). These impacts are discussed in more detail in Section 3.2.3.

7.2.12 Project Effects Relevant to Guideline 4.5.L

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 criterion 4.5(l).

7.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they will be discussed thoroughly in the proposed project's EIR.

7.4 Mitigation Measures and Design Considerations

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 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.

7.5 Conclusions

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 pre-construction nesting bird surveys during the nesting season, including within 300 to 500 feet of development, and start a monitoring program to ensure avoidance of nesting bird 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.

8 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Sections 3.5, 4.5, 5.5, 6.5, and 7.5 summarize the impacts and associated mitigation for each significant impact that may occur as a result of the proposed project. Table 10 summarizes the impacts, mitigation required, and open space available for each vegetation community and jurisdictional area.

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 11 provides a summary of project impacts and associated mitigation measures, and Table 10 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 acres of biological open space to be managed in perpetuity and preparation of a RMP.
- Administration of pre-construction 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.
- Implementation of 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.
- Biological monitoring 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.
- Establishment of a LBZ easement.
- Placement of open space signage, fencing, and walls to protect sensitive habitat, and establishment of the easement for preservation of native vegetation on site.
- Restriction of 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 pre-construction 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 implementation of 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 acres of biological open space to be managed in perpetuity and preparation of a RMP.
- Implementing a revegetation plan and/or an off-site conservation area for southern cactus scrub and southern coast live oak riparian forest.
- Implementing measures to reduce short-term and long-term indirect impacts, as noted above.
- Following 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).

The Habitat Loss Permit agreements with the Wildlife Agencies have also determined that the (1) final Management Plan will include the specifics on the location and design for all preserve fencing, (2) the Restoration Plan will include specifics on salvaging on-site cacti, clustering of mature cacti, the locations for any on-site cactus scrub restoration, appropriate plant palettes for the backyard fire-resistant revegetated areas, and success criteria with financial assurances (e.g., through a PAR-like analysis) to demonstrate adequate resource are available to successfully complete all on-site restoration; (3) the final site/landscaping plans will have no street trees (or provide appropriate lower growing native shrubs) adjacent to preserved open space areas where cactus wren are located to minimize perching from avian predators; (4) all lighting would also be shielded and or directed downward to not shine on any adjacent open space; (5) the project will include a clear enforceable mechanism (e.g., CC&Rs or equivalent) to ensure the backyard open space remains native with appropriate planting to support the cactus wren over the life of the project; (6) the project will be phased such that grading in the easterly area where the cactus wren occurs would happen last (this would allow on-site cactus scrub revegetation to be installed and managed/monitored upfront before any occupied areas would be impacted and appropriate restored habitat for cactus wren would be available elsewhere on-site for dispersal); (7) there will be no trails in the proposed biological open space; (8) the project will have all appropriate biological monitors on-site during construction activities, and will conduct pre-construction surveys for cactus wren if construction in appropriate habitat is scheduled during the breeding

season; and, (9) if off-site mitigation for cactus scrub is proposed, the Wildlife Agencies will need to review and approve of any off-site location for mitigation.

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 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 10
Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas

Habitat Types/Vegetation Communities	Existing Acreage	Total Impacts (Ac.)[1]	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 of-site land conservation of 3.5 acres.
Diegan coastal sage scrub	149.1	27.0	2:1	54.0	114.0	8.1	
Disturbed Diegan coastal sage scrub	31.0	6.1	2:1	12.2	24.0	0.9	
Subtotal	*184.7*	*35.8*	—	*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[2]	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 coastal sage scrub (including disturbed).
Subtotal	*28.8*	*20.3*	—	*10.2*	*4.7*	*3.8*	

Table 10
Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas

Habitat Types/Vegetation Communities	Existing Acreage	Total Impacts (Ac.)[1]	Mitigation Ratio	Mitigation Required (Ac.)	Biological Open Space Mitigation (Ac.)	Impact Neutral Open Space (Ac.)	Off-site and/or On-site Mitigation (Ac.)
Non-Natural Land Covers							
Agriculture (Intensive)	17.4	17.3	None	—	<0.01	<0.01	
Agriculture (Extensive)	58.8	50.0	0.5:1	25.0	1.9	7.0	This impact will be mitigated through the on-site preservation of coastal sage scrub (including disturbed).
Developed	2.5	2.4	None	0	<0.01	<0.01	
Disturbed	4.5	2.1	None	0	1.9	0.3	
Orchard	68.3	24.0	None	0	42.0	2.2	
Subtotal	*151.5*	*96.0*	—	*25.0*	*45.9*	*9.5*	
Total Non-jurisdictional Vegetation Communities	**489.6**	**154.4**	**—**	**107.9**	**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[3]	
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 10
Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas

Habitat Types/Vegetation Communities	Existing Acreage	Total Impacts (Ac.)[1]	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[2]	—	9.80	0.30 acre will be avoided in final design or mitigated through restoration, creation, or enhancement
Sycamore alluvial woodland	4.26	—	—	—	—	4.26	
Subtotal	*15.30*	*0.10*	**—**	*0.30*	*0.66*	*15.20*	**—**
CDFW Only							
Non-wetland drainage[4]	0.28	0.03	1:1	0.03	0.23	0.02	0.03 acre will be mitigated through restoration, creation, or enhancement
Total Jurisdictional Wetland and Waters	**23.93**	**0.13**	**—**	**0.33**	**0.89**	**23.83**	**—**
Other							
Oak Root Zone	32.9[5]	0.4	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 restoration, creation, or enhancement
TOTAL	**513.5**	**154.4**	**—**	**109.1**	**299.7**	**59.3**	**—**

1 Totals may not add due to rounding.
2 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.
3 0.01 acre of non-vegetated channel is located within the fire buffer and is not counted toward open space.
4 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.
5 This layer is mapped as an overlay in relation to the vegetation community mapping is not counted toward the total acreage.

Table 11 provides a summary of each mitigation measure and the relevant County significance criteria.

Table 11
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 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 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, 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)
Impact-BI-10 – Impacts to special status plant species and vegetation, long-term	Less than significant	
See **M-BI-1** and **M-BI-2**, above.		4.1(h)
M-BI-10: Limited Building Zone Easement, Open Space Signage and Fencing/Wall, Easement Avoidance, which provide for long-term resource management and		4.1(h)

Table 11
Summary of Mitigation Measures

Proposed Mitigation	Level of Significance After Mitigation	Guideline Number(s)
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 – 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: Pre-construction surveys will be conducted within 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
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	

Table 11
Summary of Mitigation Measures

Proposed Mitigation	Level of Significance After Mitigation	Guideline Number(s)
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.		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)

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9 REFERENCES

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

33 CFR 328.1–328.5. Definition of Waters of the United States.

16 U.S.C. 1531–1544. Endangered Species Act of 1973, as amended.

ACOE (U.S. Army Corps of Engineers). 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. September 2008. Accessed September 1, 2010. http://www.usace.army.mil/CECW/Pages/reg_supp.aspx.

ACOE and EPA (U.S. Environmental Protection Agency). 2008. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*. Washington, D.C.: EPA. December 2.

AOU (American Ornithologists' Union). 2010. "Check-List of North American Birds: List of the 2,070 Bird Species Known From the AOU Check-list Area." http://www.aou.org/checklist/north/full.php.

Barr, K., A. Vandergast, and B. Kus. 2013. *Genetic Structure in the Cactus Wren in Coastal Southern California*. Data Summary Report prepared for California Department of Fish and Wildlife. Reston, Virginia: U.S. Geological Survey.

Beier, P., and S. Loe. 1992. "A Checklist for Evaluating Impacts to Wildlife Movement Corridors." *Wildlife Society Bulletin* 20:434–440.

Bennett, A.F. 2003. *Linkages in the Landscape: The Role of Corridors and Connectivity in Wildlife Conservation.* World Conservation Union.

Bowman, R.H. 1973. *Soil Survey, San Diego Area, California, Part 1.* United States Department of Agriculture. December 1973.

CAL FIRE. 2011. California Department of Forestry and Fire Protection. Accessed at http://www.fire.ca.gov/index.php.

Calflora. 2011. Calflora Database. Accessed at http://www.calflora.org.

California Fish and Game Code, Section 2050–2115.5. California Endangered Species Act.

Carr, T., R. Dacanay, K. Drake, C. Everson, A. Sperry, and K. Sullivan. 2003. *Wildlife Crossings: Rethinking Road Design to Improve Safety and Reconnect Habitat.* Portland State University Planning Workshop.

CDFG (California Department of Fish and Game). 2011a. *RareFind*. Version 3.1.0. California Natural Diversity Database (CNDDB). Accessed November 2011.

CDFG. 2011b. *Special Animals List*. CNDDB. Accessed January 2011.

CDFG and CRA (California Resources Agency). 1993a. *Southern California Coastal Sage Scrub NCCP Conservation Guidelines*. August 1993.

CDFG and CRA. 1993b. *Southern California Coastal Sage Scrub NCCP Process Guidelines.* November 1993.

Center for Biological Diversity. 2004. Petition to List the Hermes Copper Butterfly (*Hermelycaena [Lycaena] hermes*) as Endangered Under the Endangered Species Act.

CNPS (California Native Plant Society). 2011. *CNPS Inventory of Rare and Endangered Plants* (online edition, v7-11 feb 2-08-11). Sacramento, California: California Native Plant Society. Accessed February 2011. http://www.cnps.org/inventory.

County of Riverside. 2008. "BIRDS." Volume 2 - The MSHCP Reference Document. *Western Riverside County Multiple Species Habitat Conservation Plan*. County of Riverside Transportation and Land Management Agency (TLMA). Accessed October 20, 2008. http://www.rctlma.org/mshcp/volume2/birds.html.

County of San Diego. 1997. Multiple Species Conservation Program County of San Diego Subarea Plan. Adopted October 22, 1997.

County of San Diego. 2005. GIS Mapping.

County of San Diego. 2007. *An Ordinance Codifying and Amending the Resource Protection Ordinance, Relating to Wetlands, Prehistoric and Historic Sites, Agricultural Operations, Enforcement, and Other Matters*. Ordinance No. 9842. March 21.

County of San Diego. 2009. *Draft North County Multiple Species Conservation Program* (NCMSCP).

County of San Diego. 2010a. County of San Diego Report Format and Content Requirements: Biological Resources. Fourth Revision. September 15, 2010.

County of San Diego. 2010b. County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources. Fourth Revision. September 15, 2010.

County of San Diego. 2011. *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability*. Adopted August 3, 2011. Accessed August 15, 2011. http://www.sdcounty.ca.gov/dplu/generalplan.html.

Craig, D. and P. L. Williams. 1998. "Willow Flycatcher (*Empidonax traillii*)." California Partners in Flight Riparian Bird Conservation Plan. Accessed February 8, 2008. http://www.prbo.org/calpif/htmldocs/riparian_v-2.html

Digital Globe. 2008. "1 Foot DOQQ Aerial Image for San Diego County." Digital Orthophoto Quarter Quad (DOQQ).

Dixon, J.B. 1937. "The Golden Eagle in San Diego County, California." *Condor* 39:49–56.

Dudek. 2005a. "Focused California Gnatcatcher, Least Bell's Vireo, and Southwestern Willow Flycatcher Surveys, Warner Ranch Project, County of San Diego, California." Letter report from J. Priest (Dudek) to the U.S. Fish and Wildlife Service. August 31, 2005.

Dudek. 2005b. *Draft Existing Conditions Biological Resources Report & MSCP Hard Line Preserve Analysis – Warner Ranch Development*. Encinitas, California: Dudek. August 2005.

Dudek. 2008. "Focused Quino Checkerspot Butterfly Survey for the Warner Ranch Project, Pala Area, County of San Diego, California." Letter report from T. Wotipka and V. Joshi (Dudek) to Sandy Marquez, U.S. Fish and Wildlife Service. October 14, 2008.

Dudek. 2009. *Tejon Mountain Village Biological Resources Technical Report*. May 2009.

Dudek. 2010a. "Least Bell's Vireo and Southwestern Willow Flycatcher Focused Survey Results for the Warner Project, County of San Diego, California." Letter report from J. Priest and T. Liddicoat (Dudek) to the U.S. Fish and Wildlife Service. December 20, 2010.

Dudek. 2010b. "2010 California Gnatcatcher Focused Survey Results for the Warner Ranch Project, Community of Pala, County of San Diego, California." Letter report from B. Ortega, P. Lemons, K. Muri, J. Priest, A. Hayworth, and T. Wotipka (Dudek) to the U.S. Fish and Wildlife Service. December 30, 2010.

Dudek. 2010c. "Warner Ranch Trout Survey of Gomez Creek." Memorandum from J. Priest, T. Liddicoat, and V. Joshi (Dudek) to M. Larson and T. Hovey, California Department of Fish and Game. January 20, 2011.

Dudek. 2011. "Warner Ranch Arroyo Toad of Gomez Creek." Memorandum from J. Priest (Dudek) to M. Hayden, Capstone Advisors. November 2, 2011.

Dunk, Jeffrey R. 1995. White-tailed Kite (Elanus leucurus), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/178.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Envira. 2010. *Stephens' Kangaroo Rat Presence/Absence Trapping Studies, Warner Ranch, San Diego County, California*. Ramona, California: Envira. November 2.

Envira. 2011. *Additional information provided for the Stephens' Kangaroo Rat Presence/Absence Trapping Studies, Warner Ranch, San Diego County, California*.

FIREWISE 2000, Inc. 2011. *Fire Protection Plan, Warner Ranch, TM 5508 RPL2 Environmental Log #06-02-020, Pala, CA*. Prepared for the County of San Diego. Prepared by FIREWISE 2000, Inc. March 2, 2011.

Garrett, K. and J. Dunn. 1981. *The Birds of Southern California: Status and Distribution.* Los Angeles Audubon Society.

Green, J., A. Kelly, M. Baker, D. Goodward, and J. Pike. 2011. "Western Riverside and Southwestern San Bernardino County Cactus Wren Distribution" [PowerPoint presentation]. May 2011.

Haddad, N.M. 1999. "Corridor Use Predicted from Behaviors at Habitat Boundaries." *American Naturalist* 153:215–227.

Haddad, N.M., and J.J. Tewksbury. 2005. "Impacts of Corridors on Populations and Communities." In *Connectivity Conservation*, edited by K.R. Crooks and M.A. Sanjayan, 390–415. Island Press.

Hall, E.R. 1981. *The Mammals of North America*. 2 Vol. New York, New York: John Wiley and Sons, Inc.

Heath, S.K. 2008. "Yellow Warbler (*Dendroica petechia*)." In *California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California,* edited by W.D. Shuford and T. Gardali, 332–339. In *Studies of Western Birds 1*. Camarillo, California: Western Field Ornithologists and Sacramento, California: California Department of Fish and Game.

Hickman, J.C., ed. 1993. *The Jepson Manual: Higher Plants of California*. Berkeley, California: University of California Press.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* Nongame-Heritage Program, California Department of Fish and Game. October 1986.

Jennings, M.R., and M.P. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California*. Final report. Commissioned by the California Department of Fish and Game, Inland Fisheries Division Endangered Species Project. November 1, 1994. Accessed February 9, 2010. http://www.dfg.ca.gov/wildlife/nongame/publications/docs/herp_ssc.pdf.

Johnsgard, P.A. 1990. *Hawks, Eagles, and Falcons of North America*. Washington, D.C.: Smithsonian Institution Press.

Keeley, J.E. and A. Massihi. 1994. *Arctostaphylos rainbowensis,* A New Burl-forming Manzanita from Northern San Diego County, California. *Madrono* 41(1):1-12.

Klauber, L.M. 1939. "Studies of Reptiles Life in the Arid Southwest: Part I, Night Collecting on the Desert with Ecological Statistics; Part II, Speculations on Protective Coloration and Protective Reflectivity; Part III, Notes on Some Lizards of the Southwestern United States." *Bulletin of the Zoological Society of San Diego* 14:1–100.

Lowe, C.H., C.J.C. Wright, and R.L. Bezy. 1970. "Chromosomes and Evolution of the Species Groups *Cnemidophorus* (Reptilia: Teiidae)." *Systematic Zoology* 19:128–141.

Lowther, P.E., C. Celada, N.K. Klein, C.C. Rimmer, and D.A. Spector. 1999. "Yellow Warbler (*Dendroica petechia*)." In *The Birds of North America*, ed. A. Poole and F. Gill. No. 454. Cornell Laboratory of Ornithology and The Academy of Natural Sciences. Washington, D.C. Hickman, J.C., ed. 1996. *The Jepson Manual: Higher Plants of California*. 3rd printing with corrections. Berkeley and Los Angeles, California: University of California Press.

Loy, M. 2011. Personal communication. Meeting at County of San Diego. July 18, 2011.

Meese, R.J., F.M. Shilling, and J.F. Quinn. 2007. *Wildlife Crossings Assessment and Mitigation Manual.* U.C. Davis and California Department of Transportation.

Munz, P.A. 1974. *A Flora of Southern California*. University of California Press, Berkeley, California.

NABA (North American Butterfly Association). 2001. *North American Butterfly Association (NABA) Checklist & English Names of North American Butterflies*. 2nd ed. Morristown, New Jersey: NABA. Accessed August 16, 2010. http://www.naba.org/pubs/checklst.html.

NatureServe. 2007. NatureServe Explorer: An Online Encyclopedia of Life. Version 6.2. Arlington, Virginia: NatureServe. Accessed October 28, 2007

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County.* Prepared by Robert F. Holland, Ph.D. for State of California, The Resources Agency, Department of Fish and Game (October 1986). March 2008.

Pagel, J.E., D.M. Whittington, and G.T. Allen. 2010. *Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance.* Division of Migratory Bird Management, U.S. Fish and Wildlife Service. February 2010.

Pielou, E.C. 1979. *Biogeography*. New York, New York: Wiley-Interscience.

Rea, A. M. and K.L. Weaver. 1990. "The Taxonomy, Distribution, and Status of Coastal California Cactus Wrens." *Western Birds*: 21–3.

Reed, P.B., Jr. 1988. *National List of Plant Species that Occur in Wetlands: California (Region 0).* U.S. Fish and Wildlife Service, Biological Report 88(26.10).

Reiser, C. 1994. *Rare Plants of San Diego County*. Unpublished. San Diego, California: Aquafir Press.

Reveal, J. and C. Hardham 1989. "A Revision of the Annual Species of Chorizanthe (*Polygonaceae: Eriogonoideae*)." *Phytologia* 66(2): 90–198.

Roberts, F.M. 1997. Orange County Flora Data Base. Unpublished report. Encinitas, California: F.M. Roberts Publications.

Rodriguez, R. 2013. Email from R. Rodriguez (CDFW) to M. Loy. May 3, 2013.

Rosenberg, D.K., B.R. Noon, and E.C. Meslow. 1995. "Towards a Definition of Biological Corridor." In *Integrating People and Wildlife for a Sustainable Future*, ed. Bissonette and Krausman, 436–439. International Wildlife Management Congress. Bethesda, Maryland.

Rosenberg, D.K., B.R. Noon, and E.C. Meslow. 1997. "Biological Corridors: Form, Function, and Efficacy." *BioScience* 47:677–687.

Schwenkmeyer, D. 2007. "Two-Striped Gartersnake." San Diego Natural History Museum. Accessed November 16, 2007. http://www.sdnhm.org/fieldguide/herps/tham-ham.html.

Scott, T. A. 1990. "Conserving California's Rarest White Oak: the Engelmann Oak." *Fremontia* 18(3):26–29.

Scott, T. A. 1991. *The Distribution of Engelmann Oak (Quercus engelmannii) in California.* USDA Forest Service General Technical Report PSW-126.

Shapouri & Associates. 2013. "Warner Ranch Lot Loss Estimate If Additional Cactus Wren Was to be Preserved and RPO Buffer Has No Encroachments." Letter report from M. Shapouri to V. Joshi (Dudek). June 14, 2013.

Sogge, M.K., R.M. Marshall, S.J. Sferra, and T.J. Tibbitts. 1997. *A Southwestern Willow Flycatcher Natural History Summary and Survey Protocol*. Technical Report NPS/NAUCPRS/NRTR-97/12. Flagstaff, Arizona: USGS Colorado Plateau Research Station, Northern Arizona University.

Sogge, M.K., D. Ahlers, and S.J. Sferra. 2010. "A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher" Chapter 10 of Section A, "Biological Science," Book 2, *Collection of Environmental Data.* Reston, Virginia: U.S. Geological Survey.

Soulé, M.E., and M.E. Gilpin. 1991. "The Theory of Wildlife Corridor Capability." In *Nature Conservation 2: The Role of Corridors*, ed. D.A. Saunders and R.J. Hobbs, 3–8. Chipping Norton, Australia: Surrey Beatty and Sons.

Stadtlander, D. 2013. Email from D. Stadtlander (USFWS) to V. Joshi (Dudek). May 2, 2013.

Stebbins, R.C. 1954. *Amphibians and Reptiles of Western North America*. Boston, Massachusetts: McGraw Hill Book Company.

Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians*. Houghton Mifflin Company: Boston, Massachusetts.

SWRCB (State Water Resources Control Board). 1994. *Water Quality Control Plan for the San Diego Basin (9).* San Diego, California: California Regional Water Quality Control Board, San Diego Region. September 8.

Tesky, Julie L. 1994. "*Buteo jamaicensis.*" Fire Effects Information System. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Accessed March 7, 2013. http://www.fs.fed.us/database/feis/.

Unitt, P. 2004. *San Diego County Bird Atlas*. No. 39. Proceedings of the San Diego Society of Natural History. San Diego, California: Ibis Publishing Company.

USDA (U.S. Department of Agriculture). 1994. Soil Conservation Service, National Technical Committee for Hydric Soils.

USDA, NRCS (Natural Resources Conservation Service). 2003. *Field Indicators of Hydric Soils in the United States: Guide for Identifying and Delineating Hydric Soils, Version 5.01*, edited by G.W. Hurt, P.M. Whited, and R.F. Pringle. Fort Worth, Texas: USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils.

USDA. 2010. NRCS. *Web Soil Survey* [web application]. http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.

USFWS (United States Fish and Wildlife Service). 1997. *Coastal California Gnatcatcher* (Polioptila californica californica) *Presence/Absence Survey Guidelines.* February 28, 1997. http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/cagn/coastal-gnatcatcher_survey-guidelines.pdf.

USFWS. 1999. *Survey Protocol for the Arroyo Toad.* May 19, 1999. http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/arroyotoad/arroyotoad_surveyprotocol.pdf.

USFWS. 2001. *Least Bell's Vireo Survey Guidelines.* January 19, 2001. http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/lbv/leastbellsvireo_survey-guidelines.pdf.

USFWS. 2002. *Quino Checkerspot Butterfly* (Euphydryas editha quino) *Survey Protocol Information*. February 2002. http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/qcbf/qchkrsptbfly_survprotocols.pdf.

USFWS. 2003. *Recovery Plan for the Quino Checkerspot Butterfly* (*Euphydryas editha quino*). Portland, Oregon. August 11.

USFWS. 2011. Draft Eagle Conservation Plan Guidance. January 2011.

USFWS. 2012. "Critical Habitat and Occurrence Data" [map]. Accessed January 2012. http://www.fws.gov/data.

The Weather Channel. 2010. Accessed November 30, 2010. http://www.weather.com/outlook/travel/vacationplanner/wxclimatology/monthly/graph/92059.

WRI (Wildlife Research Institute, Inc.). 2012. *The Gregory Mountain Golden Eagle Territory in San Diego County, California: A Compilation of Historical Data.* Prepared for the Army Corps of Engineers. February 14, 2012.

Wilson, D.E., and D.M. Reeder, eds. 2005. *Mammal Species of the World: A Taxonomic and Geographic Reference.* 3rd ed. Baltimore, Maryland: Johns Hopkins University Press.

Zeiner, D.C., W.F. Laudenslayer Jr., and K.E. Mayer. 1988. *California's Wildlife: Volume I. Amphibians and Reptiles*. Sacramento, California: California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. *California's Wildlife: Volume II. Birds.* Sacramento, California: California Department of Fish and Game.

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APPENDIX A

Stephens' Kangaroo Rat Presence/Absence Trapping Studies, Warner Ranch, San Diego County, California

STEPHENS' KANGAROO RAT
PRESENCE/ABSENCE TRAPPING STUDIES
WARNER RANCH
SAN DIEGO COUNTY, CALIFORNIA

Project Proponent:
WARNER RANCH

APN 1100213200,1100210900,1100901800,1100211000,1100402200,1100900200,1100901700,1100900100

Project Acreage and Surveyed Area: 565.99 Acres

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Trapping Surveys Conducted On:

October 10 to 15 , 2010

Report Date:
November 2, 2010

Prepared For:

DUDEK

This report was prepared in accordance with professional requirements and recommended protocols for small mammal trapping studies (USFWS Permit TE068072-2).

Philippe Vergne

Philippe Jean Vergne, Field Biologist and Author

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INTRODUCTION

Philippe Jean Vergne of ENVIRA was contracted by DUDEK, to conduct a live-trapping effort for the Stephens' Kangaroo Rat (*Dipodomys stephensi*)-SKR. The study was conducted within suitable SKR habitat on portions of the estimated acre Warner Ranch property and adjacent 56-acre parcel in San Diego County, California. The property is located to the north of highway 76 and is bordered by the Pala Indian reservation on the east.

The proposed project calls for the development of estate lots and related infrastructure.

A literature review, and records check were conducted for sensitive resources within the vicinity of the proposed project. The site is located ten miles to the west of the documented SKR population at the Fallbrook Airport (Vergne 2008).

In addition to the literature review, a general field survey of the project area was conducted in 2008 by Dr. Phil Behrends, Ph.D. (Permit # TE-031287-5; CDFG MOU), and a site re-survey was conducted by Philippe Vergne in 2010. The field survey provided information on the existing conditions of the site and the potential for sensitive resources to be present.

Based on the results of the site surveys, focused trapping surveys for the SKR were conducted in areas containing potential habitat and suitable soils in October of 2010.

Three sensitive mammal species were identified as potentially present in the vicinity of the project site: the Stephens' Kangaroo Rat, the Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*), and the San Diego Desert Woodrat (*Neotoma lepida intermedia*).

Trapping surveys for the SKR were conducted according to U. S. Fish and Wildlife Service (USFWS) protocols. The current protocol calls for five nights of trapping, conducted when the species is active above ground at night and preferably during a new moon phase. One trapping session was conducted from October 10 to 15, 2010.

Based on the trapping results, SKR do not occur on site. The resident kangaroo rat on site is the Dulzura kangaroo rat (*Dipodomys simulans*).

Two sensitive mammal species, the Northwestern San Diego Pocket Mouse and the San Diego Desert woodrat were captured as part of the trapping effort. Although two sensitive species were captured on site, the area of take is limited on a regional scale, and therefore impact to these species from project implementation are not considered significant.

1.0 METHODS

A literature review and records check were conducted for sensitive small mammal resources within the vicinity of the proposed project. In addition to the literature review, a general field survey of the project area was conducted. The field survey provided information on the existing conditions on the site and the potential for sensitive resources to be present. Focused trapping surveys for the SKR were conducted on areas containing potential habitat and suitable soils.

1.1 LITERATURE REVIEW

A literature review was conducted prior to the trapping effort. This included a review of standard field guides and texts on sensitive and non-sensitive biological resources, as well as the following sources:

- List of sensitive biological resources provided by the California Natural Diversity Data Base (CNDDB);
- Biological resources reports for the project site and adjacent properties; and
- General texts and other documents identifying potential resources on the site.

All technical information reviewed is included in the References section of this document.

1.2 GENERAL BIOLOGICAL SURVEYS

A reconnaissance level pedestrian survey was conducted on the property to assess suitable habitat for sensitive biological resources within the project boundaries. The field team inventoried and evaluated the condition of the plant communities on site in order to assess the probability of occurrence for SKR or other sensitive species. Based on the results of the reconnaissance survey, and since kangaroo rat sign was found on site, a focused trapping survey was performed.

Notes were taken during the surveys of all plant and animal species observed. Observations of animal species included scat, trails, tracks, burrows, nests, calls, and visual observation. In addition, site characteristics such as soils, topography, the condition of the plant communities, and evidence of human use of the site were noted. A list of plant and wildlife species observed is included (Appendix A).

1.2 FOCUSED SURVEYS

Field surveys and focused trapping for SKR were performed by Mr. Philippe Vergne of ENVIRA who holds a U.S. Fish and Wildlife Service permit to trap and handle Stephens's and San Bernardino Kangaroo rats, Pacific Pocket mouse, and to conduct field studies on sensitive small mammals in Southern California (TE-831207-2), a California Department of Fish and Game (CDFG) Memorandum of Understanding for above mentioned species and Los Angeles pocket mouse, Palms Springs pocket mouse, Palm Springs ground squirrel, white-eared pocket mouse, Jacumba pocket mouse, north-western San Diego pocket mouse, and Dulzura pocket mouse , and a CDFG collection permit.

Trapping lines of 20-30 and 90 traps, set 10 meters apart, were set at each trapping area (A through E) (Exhibit 3). An area that showed potential habitat in the walk-over survey (X on Exhibit 3) was not trapped as it is currently under irrigated pasture and no evidence of kangaroo rat activity was currently present. Traps were placed in suitable habitat areas on the project site, concentrating on locating traps in areas containing small-mammal sign and /or suitable soils and vegetation.

Each trap was baited with a mixture of birdseed placed at the back of the traps. The traps were left in place and opened at dusk each night and inspected once during the night and at dawn each morning. All animals were identified and released at the point of capture.

Photographs were taken on the habitat conditions (Appendix B). A description of the associated conditions is also included. Weather conditions at the time of the trapping were also noted.

2.0 EXISTING CONDITIONS

2.1 WEATHER CONDITIONS

Weather conditions during the trapping surveys included morning temperatures in the high fifties to low sixties degrees Fahrenheit. The moon was in the first quarter during the protocol survey. Weather conditions are summarized in Table 1 below.

Table 1. Weather Conditions

DAY	CLOUD COVER	TEMPERATURE (°F)	WIND (MPH)
1 (PM)	Clear	74	0
2	Clear	57	0
3	Clear	56	0
4	Clear	56	0
5	Clear	59	0-3
6	Clear	61	0-3

2.2 TOPOGRAPHY AND SOILS

The property contors vary from flat to steep canyons. The areas trapped consists of flat to moderately sloping terrain. Soils vary from sandy in the drainages, to loams and clay loams over most of the rest of the site. Potential SKR habitat occurs in the disturbed/ruderal grasslands on site, within the small drainages and along some of the dirt roads located in the eastern portion of the property. The soils within the areas trapped are suitable for small mammal occupancy.

2.3 SURROUNDING LAND USES

Surrounding land use consist of open space and sparse rural housing in the southwest corner and to the east on the reservation. Highway 76 borders the southern portion of the property.

On site disturbances include irrigated pastures, horse training arena, housing, orchards, fencing, and dirt and paved roads. A small sheep flock and one horse are all that remain from a once extensive horse breeding and showing operation on site.

2.4 PLANT COMMUNITIES

The property plant communities are varied from chaparral, coastal sage scrub, riparian woodland, oak woodland, and disturbed annual grasslands. The vegetation types on site were described in detail in another report by Dudek. The pasture and disturbed annual grasslands sampled for SKR represent a small portion of the project site estimated at less than 20 percent of the total project acreage or about 100 acres.

A list of floral and faunal species observed in the trapping area is given in Appendix A.

2.5 WILDLIFE

Wildlife activity was moderate to high, with most of the wildlife represented by bird species and mammals.

No amphibians were observed, although potential habitat for amphibians occurs on the site. Reptiles were observed mainly in the scrub and dirt roads.

Avian species were the most common group observed during the surveys. Mammal species observed, other than those trapped, include Botta's Pocket Gopher (*Thomomys bottae*), California Ground Squirrel (*Spermophilus beecheyi*), Audubon's Cottontail (*Sylvilagus aubudonii*), mule deer (*Odocoileus hemionus*), mountain lion (*Felis concolor*) (tracks and sheep kill), bobcat (*Lynx rufus*) and Coyote (*Canis latrans*).

2.6 SENSITIVE BIOLOGICAL RESOURCES

Three sensitive species were identified as potentially occurring on the project site. They are:

2.6.1 Stephens' Kangaroo Rat

The Stephens' Kangaroo Rat prefers open areas with sparse perennial cover. This species occurs in areas of loose soil where the soil depth is at least 0.5 meter (Price and Endo 1989). SKR will also inhabit disturbed areas such as fallow fields by using the burrows of other rodents, including the Pocket Gopher and the California Ground Squirrel (O'Farrell 1989).

Like all kangaroo rats, SKR is primarily a seedeater, feeding on the seeds of both annual and shrub species. It also feeds on green vegetation and insects when these are available. Being a primarily dry biome species, kangaroo rats obtain nearly all of their water from the food they eat, and can subsist indefinitely on water extracted from dry seeds. They forage in open ground and underneath shrubs. Burrows are dug in loose soil.

SKR presence is documented ten miles to the west of the proposed project at the Fallbrook Airpark, and about 15 miles to the southwest at Warner Hot Springs.

2.6.2 Northwestern San Diego Pocket Mouse

The Northwestern San Diego Pocket Mouse prefers habitat similar to that preferred by the San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*), a species closely related to the SKR. The Northwestern San Diego Pocket Mouse occurs in open, sandy areas in the valleys and

foothills of southwestern California. The range of this species extends from Orange County to San Diego County, and includes Riverside and San Bernardino counties. This species is a California Species of Special Concern (CSSC); its historical range has been reduced by urban development and agriculture.

2.6.3 San Diego Desert Woodrat

The Desert Woodrat (*Neotoma lepida)(bryanti intermedia Patton et all*) is a relatively wide-ranging species, with a range extending along the coast of California from south of San Francisco through to the border with Baja California, Mexico. This species also occurs in the Central Valley and in the deserts of southern California, and occurs along the desert side of the Sierra Nevada into southeastern Oregon.

The coastal subspecies of the Desert Woodrat, the San Diego Desert Woodrat, prefers scrub habitats such as Coastal Sage Scrub, Chaparral, and Alluvial Fan Sage Scrub. It is more common in areas with rock piles and coarse sandy to rocky soils throughout coastal southern California.

The range of this species extends from just south of Sacramento and the San Francisco area to the border of Baja California. The coastal subspecies of the widespread *Neotoma lepida* is listed as a CSC; its historic range has been impacted by the conversion of scrub habitats into residential, commercial, and industrial use.

2.7 TRAP SITE DESCRIPTION

Trapping lines of 20-30 traps, set 10 meters apart, were set at each trapping area (A through E) (Exhibit 3).

Traps were placed in suitable habitat areas on the project site, concentrating on locating traps in areas containing small-mammal sign and /or suitable soils and vegetation.

3.0 FOCUSED TRAPPING SURVEY RESULTS

A total of five small mammal species were trapped during the survey period. Table 2 provides summary information on the species trapped per site.

TABLE 2. FOCUSED TRAPPING RESULTS FOR THE PROJECT

Trap Lines	Trap Nights	DKR	PEMA	CHFA	REME	NELE
A	150	4	7	4	2	
B	450	27	19	7	3	
C	150	6	8			
D	100	1	11			
E	100	3	7			3
TOTAL	**950**	**41**	**52**	**11**	**5**	**3**

DKR-Dulzura Kangaroo Rat (*Dipodomys simulans*)
PEMA-Deer Mouse (*Peromnyscus maniculatis*)
CHFA-Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)
REME- Harvest mouse (Reithrodontomys megalotis)
NELE-San Diego Desert Woodrat (*Neotoma lepida*)

4.0 CONCLUSION

Based on the trapping results, SKR do not occur on site. The resident kangaroo rat on site is the Dulzura kangaroo rat (*Dipodomys simulans*). There will be no impacts to SKR from project implementation.

Two sensitive mammal species, the Northwestern San Diego Pocket Mouse and the San Diego Desert woodrat were captured as part of the trapping effort. Although two sensitive species were captured on site, the area of take is limited on a regional scale, and therefore impact to these species from project implementation are not considered significant.

It should be noted that trapping results are valid for one year, after which time additional trapping efforts may be required

5.0 REFERENCES

Burt, W. H. 1986. *A Field Guide to the Mammals in North America North of Mexico*. Houghton Mifflin Company, Boston, Massachusetts.

California Natural Diversity Data Base. 2004. Data Base report on threatened, endangered, rare or otherwise sensitive species and communities in the vicinity of the project site.

Garrett, K. and J. Dunn. 1981. Birds of Southern California. Los Angeles Audubon Society. The Artisan Press, Los Angeles, California.

Grinnell, J. 1933. Review of the Recent Mammal Fauna of California. University of California Publications in Zoology, 40:71-234.

Hall, E.R. 1981. The Mammals of North America, Volumes I and II, John Wiley and Sons, New York, New York.

Hanes, T.L., R.D. Friesen, and K. Keane. 1989. Alluvial Scrub Vegetation in Coastal Southern California. U.S. Department of Agriculture, Forest Service Gen. Tech. Rep. PSW-110.

Hickman, J.C., ed. 1993. The Jepson Manual: Higher Plants of California. University of California Press.

Ingles, L.G. 1965. Mammals of the Pacific States. Stanford University Press, Stanford, California.

Laudenslayer, Jr., W.F., W.E. Grenfell, Jr. and D.C. Zeiner. 1991. A Check-list of the Amphibians, Reptiles, Birds and Mammals of California. California Fish and Game, 77:109-141.

Munz, P.A. 1974. A Flora of Southern California. University of California Press, Berkeley, California.

O'Farrell, M. J., and C. Uptain. 1989. Assessment of Population and Habitat Status of the Stephens' Kangaroo Rat (*Dipodomys stephensi*). The Resources Agency, Sacramento, California.

Price, M.V. and P.R. Endo. 1989. Estimating the Distribution and Abundance of a Cryptic Species, Dipodomys stephensi (Rodentia: Heteromydidae) and Implications for Management. Conservation Biology, 3:293 - 301.

Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company, Boston.

Vergne, P.J. 2008. Results of a SKR Presence/Absence Trapping survey at the Ramona Airpark. Prepared for San Diego County Regional Airpark Authority.

Williams, D.F. 1986. Mammalian Species of Special Concern in California. Wildlife Management Division Administrative Report 86-1. Prepared for The Resources Agency, California Department of Fish and Game.

APPENDIX A. FLORAL AND FAUNAL COMPENDIUM

Appendix A -Floral and Faunal Compendium

* denotes non-native species

ANGIOSPERMAE: DICOTYLEDONES	DICOT FLOWERING PLANTS
Anacardiaceae	**Sumac family**
Rhus ovata	Sugar bush
**Schinus molle*	Peruvian pepper tree
Toxicodendron diversilobum	Poison oak
Asteraceae	**Sunflower family**
Ambrosia dumosa	Burrobush
Ambrosia psilostachya	Western ragweed
Artemisia californica	California sagebrush
Baccharis salicifolia	Mulefat
Chrysothamnus nauseosus	Rabbit brush
**Filago gallica*	Brown filago
Gutierrezia californica	California matchweed
Helianthus annuus	Annual sunflower
Boraginaceae	**Borage family**
Amsinckia menziesii	Fiddleneck
Brassicaceae	**Mustard family**
**Brassica nigra*	Black mustard
**Hirschfeldia incana*	Short-podded mustard
**Raphanus sativa*	Wild radish
Rorippa nasturtium-aquaticum	Watercress
Cactaceae	**Cactus family**
Opuntia basilaris	Beavertail cactus
Caprifoliaceae	**Honeysuckle family**
Sambucus mexicana	Blue elderberry
Cucurbitaceae	**Gourd family**
Cucurbita palmata	Coyote melon
Euphorbiaceae	**Spurge family**
croton californica	Croton
Eremocarpus setigerus	Doveweed
Euphorbia nutans	Spurge
Fabaceae	**Pea family**

Lupinus bicolor	Miniature lupine
Medicago sativa	Alfalfa
Melilotus alba	White sweetclover
Fagaceae	**Oak family**
Quercus berberidifolia	Scrub oak
Geraniaceae	**Geranium family**
**Erodium cicutarium*	Red-stemmed filaree
**Erodium botrys*	Long beak filaree
Lamiaceae	**Mint family**
Salvia mellifera	Black sage
Platanaceae	**Sycamore family**
Platanus racemosa	Sycamore
Polygonaceae	**Buckwheat family**
Eriogonum deflexum	Flat-topped buckwheat
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile	Graceful buckwheat
Rumex crispus	Curly dock
Rosaceae	**Rose family**
Adenostoma fasciculatum	Chamise
Salicaceae	**Willow family**
Salix lasiolepis	Arroyo willow
Scrophulariaceae	**Snapdragon family**
Mimulus cardinalis	Red monkeyflower
Solanaceae	**Nightshade family**
Nicotiana glauca	Indian tobacco
ANGIOSPERMAE: MONOCOTYLEDONAE	**MONOCOT FLOWERING PLANTS**
Poaceae	**Grass family**
Achnatherum sp.	Needlegrass
**Arundo donax*	Giant reed
**Avena barbata*	Slender wild oats
**Avena sativa*	Cultivated oats
Bouteloua barbata	Six weeks grama
Bromus carinatus	California brome

**Bromus madritensis*	Red brome
**Bromus mollis*	Soft chess
**Bromus tectorum*	Cheatgrass
**Cenchrus* sp.	Sandbur
**Cynodon dactylon*	Bermuda grass
**Hordeum murinum*	Wild barley
**Schismus barbatus*	Mediterranean grass

Taxonomy and nomenclature follow Hickman 1993 and Munz 1974.

FAUNA

REPTILIA	**REPTILES**
Iguanidae	**Iguanas and their allies**
Sceloporus occidentalis	Western fence lizard
Uta stansburiana	Side-blotched lizard
Phrynosoma coronatum blainvillei	San Diego horned lizard
Teiidae	**Whiptails and their allies**
Cnemidophorus tigris multiscutatus	Coastal whiptail
Colubridae	**Colubrids**
Pituophis melanoleucucs	Gopher snake
Viperidae	**Vipers**
Crotalus viridis helleri	Southern Pacific rattlesnake
AVES	**BIRDS**
Ardeidae	**Herons and bitterns**
Ardea herodias	Great blue heron
Charadriidae	**Plovers and relatives**
Charadrius vociferus	Killdeer
Cathartidae	**Vultures**
Cathartes aura	Turkey vulture
Accipitridae	**Kites, hawks and eagles**
Elanus leucurus	White-tailed kite
Accipiter striatus	Sharp-shinned hawk
Buteo lineatus	Red-shouldered hawk
Buteo jamaicensis	Red-tailed hawk

Aquila chrysaetos	Golden eagle
Falconidae	**Caracaras and falcons**
Falco sparverius	American kestrel
Phasianidae	**Quails and pheasants**
Callipepla californica	California quail
Columbidae	**Pigeons and doves**
Columba fasciata	Band-tailed pigeon
Zenaida macroura	Mourning dove
Tytonidae	**Barn owl**
Tyto alba	Barn owl
Strigidae	**Typical owls**
Bubo virginianus	Great horned owl
Cuculidae	**Typical cuckoos**
Geococcyx californianus	Greater roadrunner
Picidae	**Woodpeckers and relatives**
Colaptes auratus	Northern flicker
Tyrannidae	**Tyrant flycatchers**
Tyrannus verticaulis	Western kingbird
Hirundinidae	**Swallows**
Hirundo rustica	Barn swallow
Corvidae	**Crows and ravens**
Aphelocoma californica	Western scrub jay
Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Sturnidae	**Starlings**
Sturnus vulgaris	European starling
Ptilogonatidae	**Silky flycatchers**
Phainopepla nitens	Phainopepla
Emberizidae	**Warblers, sparrows, blackbirds and relatives**
Pipilo crissalis	California towhee
Aimophila ruficeps canescens	Rufous-crowned sparrow
Zonotrichia leucophyrs	White-crowned sparrow
Molothrus ater	Brown-headed cowbird