CHAPTER 3.0 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT WHICH CAN BE MITIGATED

3.1 Biological Resources

General and focused biological surveys were conducted of the Project Site and off-site improvement areas between June 2002 and July 2008 to gather information about the site's biological resources. The biological resources assessment in the form of the Biological Technical Report (NRC, 2009) is included as Appendix F-1 to this EIR.

Sensitive plant surveys were conducted between mid-October 2003 and late-August 2004. Special emphasis was placed on searching for threatened, endangered, and otherwise sensitive plants that might be present on-site. Surveys also focused on determining the presence of vernal pool indicator species, rare species, and narrow endemics. Additional sensitive plant surveys were conducted in 2005 and 2006.

Focused surveys for sensitive wildlife species included:

- Habitat assessment for the federally endangered quino checkerspot butterfly (*Euphydryas editha quino*) conducted in early January 2004 and repeated in April 2005;
- Presence-absence surveys for coastal California gnatcatcher performed each year from 2003 through 2008;
- Surveys and pitfall trapping study for Arroyo toad were performed each year from 2003 through 2007;
- Habitat assessment for the least Bell's vireo in 2003 and 2004 and presence-absence surveys were conducted in 2007 and 2008; and
- Presence-absence surveys for the southwestern willow flycatcher were performed in 2007 and 2008.

A jurisdictional delineation report was completed in 2005 and updated in 2008 (Appendix F-2) to identify wetlands and waters of the U.S. under the jurisdiction of the CDFG (Section 1603 of the Fish and Game Code); the ACOE (Section 404 of the CWA); the RWQCB (Section 401 of the CWA); and the County of San Diego.

In addition, RECON prepared a Conceptual Resource Management Plan (2009) to provide direction for the permanent preservation and management of the on-site open space to be included in a conservation easement and a Conceptual Wetland Mitigation Plan to address the mitigation requirements for impacts to jurisdictional waters, including wetlands. These reports are included as Appendix F-3 and F-4 respectively.

3.1.1 Existing Conditions

The biological resources found on the Project Site are shown on Figure 3.1-1 and summarized below. They are described in detail in Appendix F-1.

Existing Regulations

Biological resources are subject to regulatory oversight at three levels: federal, state, and local (County of San Diego).

Federal Regulations

Endangered Species Act

The federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a 'take' under the Endangered Species Act. Take of a federally listed threatened or endangered species is prohibited without a special permit. The Endangered Species Act allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS and an incidental take permit has been issued. The Endangered Species Act also allows for the take of threatened or endangered species after consultation has deemed that development activities will not jeopardize the continued existence of the species. The federal ESA also provides for a Section 7 Consultation when a federal permit is required, such as a Clean Water Act Section 404 permit. It is this vehicle that the applicant will be using.

"Critical Habitat" is a term within the federal Endangered Species Act designed to guide actions by federal agencies (as opposed to state, local, or other agency actions) and defined as "an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species."

Section 404 Clean Water Act Regulations

The Clean Water Act (CWA) provides wetland regulation at the federal level and is administered by the ACOE. The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting is required for filling waters of the U.S. (including wetlands). Permits may be issued on an individual basis or may be covered under approved nationwide permits.

Regional Water Quality Control Board (RWQCB)

The RWQCB not only regulates impacts to waters of the U.S. under the CWA, but also regulates the isolated waters that are impacted under the state Porter Cologne Act utilizing a Waste Discharge Requirement. The Chief Counsel for the State Water Resources Control Board recently issued a memorandum which affects the Section 401 Water Quality Certification Program. In this memorandum the SWRCB's Chief Counsel administratively expands SWRCB's own definition of "waste" to include discharge of fill material into isolated waters of the United States. Consequently, discharge of fill material into waters of the State not subject to the jurisdiction of the Corps pursuant to Section 404 of the Clean Water Act may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements (WDRs) or through waiver of WDRs, despite the lack of a clear regulatory imperative.

Migratory Bird Treaty Act (MBTA)

All migratory bird species that are native to the U.S. or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act (MBTRA) of 2004 (FR Doc. 05-5127; USFWS 2004). The MBTA is generally protective of migratory birds.

State of California

California Endangered Species Act

The California Endangered Species Act, similar to the federal Endangered Species Act, contains a process for listing of species and regulating potential impacts to listed species. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. The designation “rare species” applies only to California native plants. State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the California Endangered Species Act. State threatened and endangered animal species are legally protected against “take.” The California Endangered Species Act authorizes CDFG to enter into a memorandum of agreement for take of listed species to issue an incidental take permit for a state listed threatened and endangered species only if specific criteria are met.

State Species of Special Concern

Species of special concern is an informal designation used by the CDFG for some declining wildlife species that are not officially listed as endangered, threatened, or rare. This designation does not provide legal protection, but signifies that these species are recognized as vulnerable by CDFG.

California Fully Protected Species

Species that are California fully protected include those protected by special legislation for various reasons, such as the white-tailed kite (*Elanus leucurus*).

Wetlands Regulations

The California Fish and Game Code (Sections 1600 through 1603) requires a Streambed Alteration Agreement with CDFG for projects affecting riparian and wetland habitats.

County of San Diego

Multiple Species Conservation Program (MSCP)

The NCCP program of the Department of Fish and Game, pursuant to the California Fish and Game Code Section 2800-2835 (the NCCP Act), identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. To implement the NCCP, the County, along with other local agencies, is in the process of preparing MSCPs. The goal of the MSCP is to maintain and enhance biological diversity in the region and maintain viable populations

of endangered, threatened, and key sensitive species and their habitats while promoting regional economic viability through streamlining the land use permit process.

The County is currently in the process of creating a MSCP for the unincorporated areas of northern San Diego County. The MSCP generally does not designate an exact preserve boundary, but instead designates large Pre-approved Mitigation Areas (PAMAs) within which conservation efforts are to be concentrated and a preserve will be assembled. The MSCP generally provides incentives for development to occur outside of a PAMA.

A hardline is a designation that has been agreed upon between landowners, the wildlife agencies, and the County. The hardline defining preserve and development areas has been negotiated for a few properties, including Meadowood for the North County MSCP. In such areas, preservation and development area decisions were made during MSCP development with respect to the location of open space and development. The draft North County MSCP map shows certain areas of the Project Site as “take authorized” and others as preserved. The open space in Meadowood is connected to other proposed PAMAs to the north and east, forming part of a large habitat block that extends from I-15 east to the Pala Indian Reservation and beyond. See Figure 3.1-2 for the draft North County MSCP designations.

Habitat Loss Permit Ordinance

The County regulates coastal sage scrub habitat loss through the Habitat Loss Permit (HLP) Ordinance. An HLP is a process that enables the County of San Diego to issue "take" permits for the federally listed coastal California gnatcatcher, as allowed through the federal Endangered Species Act. An HLP application must be filed with the County and approval requires concurrence from USFWS and CDFG. Approval is based on Findings made pursuant to the County’s HLP Ordinance (1994) as required by the NCCP Process Guidelines. Until the North County MSCP is approved, the HLP is required for all coastal sage scrub impacts, whether or not the coastal California gnatcatcher occupies the habitat. An HLP also requires a mitigation plan for impacts to coastal sage scrub and disturbed coastal sage scrub.

Resource Protection Ordinance

The Resource Protection Ordinance (RPO) limits impacts to several sensitive natural resources found throughout San Diego County. These sensitive resources include wetlands, floodplains, steep slopes, sensitive habitat lands, and prehistoric and historic sites. A Resource Protection Study pursuant to Sec.86.605(b) is required for discretionary projects that may affect these sensitive natural resources. Several sections of the RPO are pertinent to the Proposed Project.

As detailed within the Biological Technical Report and discussed below, there are no wetlands on-site that meet the RPO standard as “wetlands.” Many of the wetlands on or adjacent to the site are fed by agriculture runoff. These wetlands are isolated and not considered an RPO wetland under Section 86.602 (q)(2)(aa). Some road construction associated with off-site improvements will impact RPO wetlands on adjacent properties. However, the Specific Plans associated with these properties have been exempted from the provisions of RPO, thus impacts are allowed.

Under the RPO, a wetland buffer is required where development is adjacent to wetland areas (Sec. 86.604[b]). In addition, encroachment into RPO steep slopes lands (25 percent or greater grade for 50 or more feet) must be minimized in accordance with Section 86.604 (e).

Under the RPO Sec. 86.602(n) habitat such as occupied coastal sage scrub is a "sensitive habitat land" as it is substantially depleted in the region and is habitat for the federally threatened coastal California gnatcatcher. Habitat associated with a functioning wildlife corridor is also defined as a "sensitive habitat land" under the RPO Sec. 86.602(n).

As required by the RPO, impacts to sensitive habitat lands must be minimized and mitigated*.*

Vegetation Communities

Eleven plant communities, or habitats, were identified on the Project Site: agricultural (209.9 acres); coastal sage scrub (56.5 acres); disturbed coastal sage scrub (30.6 acres); southern mixed chaparral (19.6 acres); coast live oak woodland (1.7 acres); willow/mule fat scrub (≤0.1 acres); open water/pond (0.7 acres); non-native grassland (31.9 acres) non-native trees (8.3 acres); pastureland (1.5 acres); and developed or disturbed areas (28.7 acres).

Habitats identified on the off-site improvement areas (grading, roads, Second Aqueduct connection and waterlines) include: agricultural (3.8 acres); coastal sage/ disturbed coastal sage scrub (1.9 acres); coast live oak woodland (0.2 acre); southern willow scrub (1.0 acre); fresh water marsh (0.3 acre); non-native grassland (5.4 acres) non-native trees (1.02 acres); southern arroyo willow riparian forest (2.77 acres); pastureland (28.7 acres); and developed or disturbed areas (19.5 acres).

A wetland exists off-site on the adjacent Campus Park project site, west of the Proposed Project. The Proposed Project assumes this wetland will remain intact and as discussed throughout this section, includes an on-site wetland buffer.

The extent and location of these vegetation communities are shown in Figure 3.1-1 and the acreage of each vegetation community on the Project Site is listed in Table 3.1-1.

Agricultural

Most of the Project Site has been used for various agricultural activities, with extensive areas supporting citrus and avocado orchards occupying the lower and mid-portions of ridges and slopes in the central portion of the site. These areas are irrigated, and the trees are maintained by periodic trimming and pruning. In the narrower portion to the south are seasonally planted fields.

Coastal Sage Scrub

Coastal sage scrub vegetation occurs predominantly on west- and south-facing slopes, including the southern and western slopes and ridgetops of Monserate Mountain along the northern and eastern boundaries of the Project Site. This plant community is

characterized by the presence of drought-tolerant shrubs, most of which are also drought-deciduous.

Disturbed Coastal Sage Scrub

Portions of the west-facing slopes of Monserate Mountain were mapped as disturbed coastal sage scrub where previously removed sage scrub vegetation is recovering. In these areas, there is a mixture of sage scrub plant species with annual grasses, mustards, and other grassland elements.

Southern Mixed Chaparral

Southern mixed chaparral is the second most dominant native plant community within the boundaries of the Project Site. Chaparral is characterized by deep-rooted evergreen leafy shrubs that form dense and often impenetrable canopy. This plant community frequently occurs on dry, rocky and steep terrain. It generally grows from four to 15 feet in height with little to no understory, due to the uniformly dense canopy.

Coast Live Oak Woodland

Coast live oak woodland is represented by a few individual trees and two small groves on the moderate to steep slopes in the eastern portion of the Project Site. The oaks are associated with other plant communities occurring on the site, including coastal sage scrub, southern mixed chaparral and annual grassland.

Willow/Mule Fat Scrub

A small drainage runs through the western boundary of the Project Site and supports small arroyo willows and mule fat.

Open Water Ponds

Traces of riparian-associated plant-life are growing along the edges of two artificial detention basins, or irrigation ponds, used to store water for agricultural purposes and supporting traces of riparian vegetation along edge. There are additional ponding areas situated in the central portion of the site, within the citrus and avocado orchards. They do not comprise a distinct habitat type or plant community~~, and are not jurisdictional wetlands~~.

Non-Native Grassland

Non-native grassland vegetation is characteristically dominated by grasses, or co-dominant with various forbs. Non-native or annual grassland is found in areas where the soil has been disturbed, generally through agricultural activities.

Non-Native Trees

Non-native trees are scattered throughout the southern half of the Project Site associated with developed areas of the Project Site. The majority of the non-native trees are eucalyptus.

Pastureland

The western edge of the Project Site is occupied by small strips of pastureland which continue to the west and provide pasture for grazing livestock. Pastureland consists of non-native grasses and forbs cut low to the ground by grazing animals.

Graded and Developed Areas

A network of graded dirt roads has been created to provide access throughout the Project Site, reaching various portions of the citrus and avocado orchards, as well as adjacent slopes. Two small areas in the extreme southern and central areas of the Project Site have houses with landscaped yards.

Special Status Biological Resources

Special status biological resources include declining habitats and species that have been accorded special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, rare, or otherwise of concern. Complete definitions of these special status categories is found in the Biological Technical Report (see Appendix F-1). Databases of such resources are maintained by the CDFG, the USFWS, and special groups such as the California Native Plant Society (CNPS).

Habitats

Several plant communities or habitat types are considered sensitive by the CDFG's California Natural Diversity Data Base (CNDDB) because they are scarce and/or because they potentially support state and/or federal listed endangered or threatened wildlife species and/or vascular plant species. The only such plant community on-site is coastal sage scrub. It is considered a highest-inventory priority community by the CDFG, indicating that it is declining in acreage throughout its range due to land use changes. Coastal sage scrub, including regenerating coastal sage scrub following disturbance, occurs on ridges and south- and west-facing slopes. This community supports a number of special status species including the coastal western whiptail, coast horned lizard, southern California rufous-crowned sparrow, Bell's sage sparrow, and San Diego black-tailed jackrabbit. Coastal sage scrub on and in the vicinity of the Project Site has been known to support the federally threatened coastal California gnatcatcher. Coastal sage scrub has been state-ranked as S3.1 by the CNDDB.

Wetlands/Jurisdictional Waters

Wetlands are considered a sensitive biological resource. Disturbance to wetlands is regulated by several agencies, all of which have very specific definitions. There is considerable overlap among the various jurisdictions. The definitions, findings, and calculated impacts to the various jurisdictional areas are described in detail in the Revised Jurisdictional Delineation (2008), included as Appendix F-2 to this EIR and summarized below.

ACOE Jurisdiction

There are 0.83 acres (35,965 ft^2) of waters of the United States under the jurisdiction of the ACOE, of which 0.14 acre consist of jurisdictional wetlands. The drainage located in

the central portion of the Project Site, (also referred to as “Drainage 4” in the Biological Technical Report and Revised Jurisdictional Delineation), supports the entirety of the 0.14-acre jurisdictional wetlands. In addition to the 0.83 acre of ACOE jurisdictional waters, there is 0.06 acre of isolated waters, none of which consist of wetlands.

CDFG Jurisdiction

There are 0.93 acres (40,618 ft^2) of area under the jurisdiction of the CDFG, of which 0.34 acre consist of vegetated riparian habitat.

County of San Diego

There are no County RPO wetlands on-site. Although the 0.14 acre of wetlands in the drainage located in the central portion of the Project Site supports several riparian vegetation species, including some sparse mule fat and willows, and hydric soils, ~~this drainage is~~they are not considered ~~an~~ RPO wetlands. Section 86.602(q)(2)(bb) of the RPO states that lands that have been disturbed by past legal actions, have negligible biologic function and value, and that do not support a substantial or locally important population of wetland dependent species, are not considered to be "wetlands". The wetland attributes in this drainage are the result of legal agricultural irrigation runoff, the biological functions and values are negligible, and the area does not support any substantial or locally important wetland dependent species. Therefore, the on-site ephemeral drainage features do not support hydrophytes, undrained hydric soils, or a water table that is usually at or near the ground surface. As such, they do not meet the County’s wetland definition in the RPO.

Sensitive Plants

No special status plant species were detected on the Project Site. Several special status plant species have been recorded within the vicinity of the Project Site; however, none of these species were identified on-site. Sensitive plants potentially occurring on the Project Site are listed in Table III of Appendix F-2.

Sensitive Wildlife

Agency-listed Animal Species Found on the Site or Immediate Vicinity of the Site

Federally listed wildlife species detected in the vicinity of the Proposed Project are illustrated on Figure 3.1-3; Figure 3.1-4 indicates Critical Habitat areas in the Proposed Project vicinity. Sensitive wildlife species observed on the Project Site, as well as other sensitive wildlife potentially occurring but not observed are listed in Table IV of Appendix F-2.

Two federally or state listed wildlife species, arroyo toad (endangered) and coastal California gnatcatcher (threatened), were detected on-site. Two other species of wildlife listed by either the USFWS or the CDFG as threatened or endangered are known to occur in the immediate vicinity of the Project Site: least Bell’s vireo and southwestern willow flycatcher. Least bell’s vireo has been detected near off-site improvement areas. These four species are discussed below.

Arroyo Toad (*Bufo californicus)*

STATUS: Federal Endangered, Group 1.

HABITAT: Restricted to open riparian woodlands and alluvial habitats, where it breeds in shallow, gravelly, slow-moving streams and pools. It is a habitat specialist, requiring exposed shallow, gravel- or sand-based pools with low current velocity and little marginal vegetation in streams free of predatory fishes.

DISTRIBUTION: Foothill regions in southern California below 3,000 ft (900 m) elevation from San Luis Obispo County to Baja California. It historically occurred along the length of drainages, including coastal areas, but now survives generally in the headwaters as small isolated populations.

OCCURRENCE ON-SITE: One individual was observed on the site south of the former alignment of SR-76 in 2007 (Cadre 2008).

OCCURRENCE OFF-SITE: Several individuals have been observed off-site south of the former alignment of SR-76 and north of the San Luis Rey River between 2003 through 2007 (Cadre 2008).

OPTIMAL SURVEY PERIOD: Breeding season surveys, April to June.

No arroyo toads had been observed within the Project Site boundary between 2003 and 2006. In 2007, one individual was observed in the southernmost portion of the Project Site's panhandle, just south of the former alignment of SR-76. Several arroyo toads have been recorded off-site. Six individual arroyo toads were detected during focused arroyo toad surveys within the San Luis Rey River upstream from the site, and two individuals were documented using the road network 140 feet south and 400 feet east of the Project Site (south of SR-76) during the 2003 surveys. During the 2004 surveys, no arroyo toads were documented using the road network immediately adjacent to the Project Site; however two individual arroyo toads were documented upstream and one individual was documented downstream within the San Luis Rey River. In 2005, three arroyo toads were observed within the San Luis Rey River southwest of the Project Site. In 2006, 52 arroyo toad observations (pitfall trapping and focused surveys) were made south of the Project Site in the new pitfall trap lines located adjacent to the river. In 2007, four arroyo toads were captured in pitfall traps within/adjacent to the San Luis Rey River (Figure 3.1-3).

Four categories of arroyo toad habitat were identified on and in the vicinity of the Project Site: potential breeding, high quality foraging/aestivation, low quality foraging/aestivation, and unoccupied habitat. Potential breeding habitat is located within the active channel of the San Luis Rey River. High quality foraging/aestivation habitat is found off-site in the lower flood prone areas of the San Luis Rey River dominated by riparian vegetation. Low quality foraging/aestivation habitat is located in the upper flood prone areas of the San Luis Rey River dominated by citrus/avocado groves. The groves have suitable soil conditions, irrigation, and detritus layer for burrowing and localized aestivation. The portion of the on-site area south of the former alignment of SR-76 is low-quality foraging/aestivation habitat. As shown in Figure 3.1-4, unoccupied habitat is located north of the former alignment of SR-76 and includes the majority of the site. The unoccupied habitat is well within one km from known arroyo toad breeding locations.

Low quality habitat extends between 600 and 1,300 feet from the San Luis Rey River north to SR-76.

Excluded Essential Habitat, but no Critical Habitat, for this species has been designated along the San Luis Rey River and its tributaries (Figure 3.1-4). Near the Project Site, it extends into Horse Ranch Creek and onto the Project Site in the southern and western portions. Although the Project Site contains about 8.2 acres of ~~excluded~~ Excluded Essential Habitat, only about 3.5 acres was suitable for seasonal arroyo toad use prior to construction of the new SR-76 alignment, including the orange groves at the southern tip of the Project Site south of the former SR-76 alignment. Current construction of the new SR-76 alignment has created a permanent barrier to arroyo toad access to the Project Site.

In San Diego County, the arroyo toad is found along most major drainages, although it has been extirpated from some and seriously depleted from others. The arroyo toad continues to occur along most of the length of the San Luis Rey River and its range within San Diego County closely parallels that of the least Bell's vireo.

California Gnatcatcher (*Polioptila californica*)

STATUS: Federal Threatened, Group 1.

HABITAT: Principally, the various associations of coastal sage scrub (Venturan, Riversidean, Diegan, Maritime, etc.), but also in chamise chaparral, especially where it occurs in association with sage scrub. Occasionally utilizes other habitats, such as riparian scrub, riparian woodland, and even grassland, outside the breeding season.

DISTRIBUTION: Southeastern Ventura County (locally), Los Angeles County (locally, primarily in the southern portion), extreme southwestern San Bernardino County, western Riverside County, Orange County, and San Diego County west of the mountains. Also found throughout much of Baja California.

OCCURRENCE ON-SITE: Not detected on-site during focused surveys conducted in 2003-2004, 2005, 2006, and 2008. An individual (unpaired) gnatcatcher was detected in the northwestern corner of the site in 2007.

OCCURRENCE OFF-SITE: One individual gnatcatcher was detected just off-site in a narrow corridor of riparian scrub in 2004. Two individual gnatcatchers were observed in the vicinity of proposed off-site improvements along Pankey Road in 2007.

OPTIMAL SURVEY PERIOD: Year-round, but mid-February through August for breeding.

Protocol-level surveys for California gnatcatcher conducted on and immediately adjacent to the Project Site in 2003-2004, 2005, 2006, and 2008 did not detect this species in suitable coastal sage scrub habitat. One individual was found just off-site in a narrow corridor of riparian scrub in 2004. The small drainage corridor is surrounded by pastureland and citrus/avocado groves and the closest coastal sage scrub habitat is approximately 1,500 feet away. As this individual was not in appropriate breeding habitat, it is presumed to have been a non-resident, possibly dispersing individual. One breeding pair was located approximately 0.4 mile northwest of the Project Site in Pankey

Wash just east of I-15. During the 2007 protocol surveys, one male California gnatcatcher was observed in the northwestern corner of the Project Site. Also, during these surveys two male gnatcatchers were observed in coastal sage scrub along Pankey Road in the vicinity of the proposed Pankey Road and water pipeline off-site improvements (Figure 3.1-5).

Based on the quality and maturity of the coastal sage scrub on the Project Site and the presence of a male California gnatcatcher in 2007, all coastal sage scrub on the Project Site is assumed to be suitable and occupied California gnatcatcher habitat. Similarly, the adjacent coastal sage scrub to the north of the Project Site and east of I-15 is considered occupied gnatcatcher habitat due to the presence of two males observed along Pankey Road. The occupied habitat includes coastal sage scrub associated with the Pankey Road widening, Pala Mesa Heights Drive, Horse Ranch Creek Road and water line off-site improvements and coastal sage scrub on the site. No California gnatcatchers have been observed south of the Project Site or west of I-15. This area is designated as unoccupied California gnatcatcher habitat. The unoccupied habitat includes coastal sage scrub associated with Pala Mesa Drive, a portion of Horse Ranch Creek Road, water lines, and off-site grading along the southern site edge.

Critical Habitat for the California gnatcatcher has been designated throughout much of the region and includes all but the central portion of the Project Site (USFWS 2007b). There are approximately 166.5 acres of Critical Habitat on-site that includes 84.7 acres of Critical Habitat considered Primary Constituent Elements (PCEs) for the California gnatcatcher site (Figure 3.1-4). There are also 2.1 acres of suitable gnatcatcher habitat on-site that are not within the boundaries of the Designated Critical Habitat. Off-site improvement areas with PCEs include Horse Ranch Creek Road, Pala Mesa Drive, and water transmission lines.

Suitable breeding habitat for the California gnatcatcher occurs north, south, and east of the Project Site. However, densities of gnatcatchers in the vicinity of the site are low. Locally, ~~T~~the California gnatcatcher is found in higher densities farther north in the Temecula area of extreme southwestern Riverside County, west and south of the town of Bonsall toward the coast ~~and south County~~, and east of the site in the vicinity of the Pala Indian Reservation. According to the USFWS's 2003 proposed revised Critical Habitat designation for California gnatcatcher, there is a core population of gnatcatcher on the Pala Indian Reservation and a regional north-south corridor through the reservation (USFWS 2003). The Pala Indian Reservation is about seven miles east of the Project Site.

Least Bell's Vireo (*Vireo bellii pusillus*)

STATUS: Federal Endangered; California Endangered, Group 1.

HABITAT: Riparian scrub and riparian woodland along river and stream courses, preferring dense willow thickets for nesting.

DISTRIBUTION: Summer season resident of central and southern California, and northwest Baja California. Additional populations are in the Owens Valley, Death Valley, and along the lower Colorado River.

OCCURRENCE ON-SITE: Not detected on-site.

OCCURRENCE OFF-SITE: In 2007, six least Bell's vireos were located in southern arroyo willow riparian forest along the San Luis Rey River south of the site, and seven other individuals were located in similar habitat along Horse Ranch Creek in the vicinity of the proposed Pala Mesa Drive. In 2008, five vireos were observed along Horse Ranch Creek.

OPTIMAL SURVEY PERIOD: April to August.

The least Bell's vireo occurs along the San Luis Rey River from I-15 to the coast and along the Santa Margarita River. The Santa Margarita River's closest approach to the Project Site is six miles to the northwest. Farther from the Project Site, the species has been found breeding primarily along the San Dieguito River 20-25 miles to the south, with scattered pairs found elsewhere in the county along smaller drainages. In 2007, six least Bell's vireos were located in southern arroyo willow riparian forest along the San Luis Rey River south of the Project Site, and seven other individuals were located in similar habitat along Horse Ranch Creek in the vicinity of the proposed Pala Mesa Drive (Figure 3.1-5). In 2008, five vireos were observed along Horse Ranch Creek in similar locations as found in 2007. All vireos have been observed east of I-15. Least Bell's vireo has not been observed on the site and no suitable habitat for this species is present within the site boundaries.

Based on field observations supplemented by CNDDB records the willow riparian forest vegetation associated with Horse Ranch Creek and the San Luis Rey River is assumed occupied least Bell's vireo habitat. This area includes the off-site improvements for Pala Mesa Drive, Horse Ranch Creek Road, and grading along the southwestern Project Site edge. The riparian vegetation along SR-76 is suitable vireo habitat and is also assumed to be occupied.

The extreme southern portion of the Project Site contains 3.13 acres of Designated Critical Habitat that do not contain any PCE's for least Bell's vireo. Therefore, the Project Site is ~~and are~~ not considered suitable habitat ~~or~~ and is not considered ~~habitat~~ occupied by this species.

Southwestern Willow Flycatcher (*Empidonax traillii extimus)*

STATUS: Federal Endangered; California Endangered, Group 1.

HABITAT: Riparian scrub and riparian woodland along river and stream courses, preferring dense thickets for nesting. These can include vegetation dominated by willows, tamarisk, and even coast live oak.

DISTRIBUTION: Summer season resident of central and southern California, as well as the lower Colorado River.

OCCURRENCE ON-SITE: Not detected on-site.

OCCURRENCE OFF-SITE: Not detected in the vicinity of off-site improvement areas.

OPTIMAL SURVEY PERIOD: May to July.

Recent CNDDB data show four known occurrences of southwestern willow flycatcher in the vicinity of the Project Site from 2000, 2002, and 2006. The nearest record is less than one mile away from the Project Site along the San Luis Rey River (Figure 3.1-5). USFWS species data show eleven known occurrences of southwestern willow flycatcher within six miles of the Project Site between 2000 and 2004. One observation was located immediately south of the Project Site across SR-76 and three other flycatcher observations were less than one-half mile upstream of the Project Site No southwestern willow flycatchers were observed on or off-site during protocol presence-absence surveys conducted in 2007 and 2008.

No suitable habitat for this species is present on the Project Site. Suitable, but unoccupied southwestern willow flycatcher habitat occurs in the willow riparian forest vegetation associated with Horse Ranch Creek and the San Luis Rey River. This area includes the off-site improvements for Pala Mesa Drive, Horse Ranch Creek Road and grading along the southwestern Project Site edge. No occupied southwestern willow flycatcher habitat is present on the Project Site or in any off-site improvement area.

Designated Critical Habitat for this species occurs along the San Luis Rey River and its tributaries and is not present on the Project Site or within off-site improvement areas. Of the relatively few breeding localities of southwestern willow flycatcher in San Diego County, most have been along the Santa Margarita River. Fewer breeding locations have been documented along the San Luis Rey River, and most of these have been downstream from the site. In western San Diego County the species is also found in the vicinity of Chula Vista near the Mexican border.

Non-listed Special Status Wildlife Species Observed on the Site

In addition to the listed species described above, there are 21 species that were detected on the Project Site or could be impacted by off-site improvements. These 21 species are special status species, but are not agency listed:

1. Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
2. Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
3. Northern harrier (*Circus cyaneus*)
4. Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*)
5. Coastal Western whiptail (*Aspidoscelis tigris stejnegeri*)
6. San Diego ringneck snake (*Diadophis punctatus similis*)
7. Coronado western skink (*Eumeces skiltonianus interparietalis*)
8. Western spadefoot (*Spea hammondi*)
9. San Diego coast horned lizard *(Phrynosoma coronatum blainvillei)*
10. Northern red rattlesnake (*Crotalus ruber ruber)*
11. Cooper's hawk (*Accipiter cooperi*)
12. Yellow warbler (*Dendroica petechia*)
13. Yellow-breasted chat (*Icteria virens*)
14. White-faced ibis (*Plegadis chihi*)
15. Western bluebird (*Sialia mexicana*)
16. Two-striped garter snake (*Thamnophis hammondii*)
17. Green heron (*Butorides virescens*)
18. Turkey Vulture (*Cathartes aura*)
19. Red-shouldered hawk (*Buteo lineatus elegans*)
20. White-tailed kite (*Elanus leucurus*)

21. Barn owl (*Tyto alba pratincola*)

Sensitive Wildlife Species Potentially Occurring But Not Observed On-site

Table IV in Appendix F-2 provides a list of the sensitive wildlife species observed on the Project Site or in and around off-site improvement areas, as well as other sensitive wildlife potentially occurring but not observed on-site. Habitats and conditions that may be appropriate for some of these species to occur on-site are also indicated in Table IV. Based on a review of the 2008 CNDDB records for the USGS Temecula, Pechanga, Bonsall, and Pala Quadrangles and USFWS federal species occurrence data, 40 species of special status animals were detected in the vicinity of the Project Site or near off-site improvement areas. Species occurrence data from the USFWS are presented on Figure 3.1-3 and CNDDB records are presented on Figure 3.1-5.

Wildlife Movement and Habitat Connectivity

Three wildlife movement corridors were observed on or near the Project Site and are illustrated on Figure 3.1-6. Movement paths or corridors were determined based on topography, habitat, wildlife sightings, and scat/tracks. The local I-15 and SR-76 highways act as barriers to wildlife movement in the area to the south and west of the Project Site. The Project Site is connected to a large area of natural vegetation associated with Monserate Mountain to the north.

Corridor 1: This north-south corridor contains upland coastal sage scrub occurring along the southern ridgeline of Monserate Mountain along the eastern and northern portions of the site. The corridor is approximately 600 to 700 feet wide within the site and runs the length of the eastern boundary. The corridor widens to the north connecting coastal sage scrub covered hills to the north with scrub covered hills to the south, SR-76, and further south to the San Luis Rey River. Coyotes and mule deer scat were observed along this ridgeline and its eastern slopes. This corridor is of moderate value to local and regional wildlife movement. Corridor 1 is an important resource for movement of species, providing access to the northern and southern areas that remain as habitable space for wildlife and vegetation communities. However, the corridor is constrained by steep slopes, narrow ridgelines, existing agriculture and residential areas. In addition, the proximity of the SR-76 creates a permanent southern terminus for regional wildlife movement limiting connectivity to regional open space areas.

Corridor 2: This corridor follows the San Luis Rey River drainage and associated riparian scrub immediately south of the Project Site. The drainage connects many different habitats along its east-west course. The corridor is approximately 200 to 400 feet wide and runs the length of the San Luis Rey River.

Corridor 3: This north-south corridor follows the slopes and ridgeline to the east of the Project Site on the western side of Rice Canyon. The disturbed coastal sage scrub and chaparral slopes and ridges connect the mountains and smaller slot canyons to the north with Couser Canyon and the San Luis Rey River to the south. The corridor varies greatly from 500

to 2,500 feet wide and runs the length of the local hills and canyons. Rice Canyon itself is developed with agriculture and residences that have fenced off most of the access through the bottom of the canyon.

The riparian forest east of I-15 from Stewart Canyon to the north through Horse Ranch Creek to the San Luis Rey River and Keys Canyon to the south may be considered a "stepping stone" or "habitat island" for riparian and migratory birds. This area was not described as a corridor based on the fact that large or mid-size mammal use of this area was not observed and, based on existing obstructions (fences and roads), is not expected. Additionally, SR-76 already acts as a barrier to wildlife movement southward towards the San Luis Rey River.

3.1.2 Guidelines for the Determination of Significance

For the purpose of the EIR, the determination of significance is based on the County's Guidelines for Determination of Significance, Biological Resources, adopted September 26, 2006.

A project will have a significant adverse environmental effect related to biology if a project-related component results in any of the following:

Special Status Species

1. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.
2. The project would impact the regional long-term survival of a County Group A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern.
3. The project would impact the regional long-term survival of a County Group C or D plant species or a County Group II animal species.
4. The project would impact arroyo toad aestivation or breeding habitat.
5. The project would impact golden eagle habitat.
6. The project would result in a loss of functional foraging habitat for raptors.
7. The project would increase the noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.
8. 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 an area that supports multiple wildlife species.
9. The project would increase human access or predation or competition from domestic animals, pests or exotic species to levels that would adversely affect sensitive species.
10. The project would impact nesting success of sensitive animals (as listed in the Guidelines for Determining Significance) through grading, clearing, fire fuel modification, and/or noise generating activities such as construction.

Riparian Habitat and Sensitive Natural Communities

11. Project-related construction, grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.
12. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.
13. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.
14. The project would increase human access or competition from domestic animals, pests or exotic species to levels proven to adversely affect sensitive habitats.
15. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Jurisdictional Waters including Wetlands

The format of the biology reports is based on the CEQA Guidelines, which discusses riparian and sensitive habitats in a separate section from wetlands. The Guidelines of Significance for jurisdictional wetlands and waterways are based on the Guidelines of Significance for riparian habitat listed as numbers 11 through 15 above.

Wildlife Movement

16. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
17. The project would substantially interfere with a local or regional wildlife corridor or linkage.
18. The project would create artificial wildlife corridors that do not follow natural movement patterns.
19. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.
20. 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 to it, and placement of barriers in the movement path.
21. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkage.

Local Policies, Ordinances, and Adopted Plans

22. For lands outside of the MSCP, the project would impact coastal sage scrub vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.
23. The project would preclude or prevent the preparation of the subregional 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.
24. The project will impact wetlands or sensitive habitat lands as outlined in the RPO.
25. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.
26. The project does not conform to the goals and requirements as outlined in any applicable HCP, Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar planning effort.
27. For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas, as defined in the Biological Mitigation Ordinance (BMO).
28. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.
29. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.
30. The project does not define impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
31. The project would reduce the likelihood of survival and recovery of listed species in the wild.
32. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).
33. The project would result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

3.1.3 Analysis of Project Effects and Determination as to Significance

The anticipated on-site project effects associated with implementation of the Proposed Project and off-site improvements are summarized below. Following this generalized discussion of on- and off-site impacts is a more detailed analysis of Special Status Species; Riparian Habitat and Sensitive Natural Communities; Jurisdictional Wetlands; Wildlife Movement Corridors; and Local Plans and Policies. These topical discussions follow the same order of the Guidelines for the Determination of Significance listed in Section 3.1.2 and the Biological Technical Report (see Appendix F-1).

All impacts for the Proposed Project have been classified as permanent, temporary or impact neutral as described below.

- A permanent impact is defined as an impact that will remove vegetation and will not be restored or revegetated. Grading, brush management, and installation of structures are examples of permanent impacts.

- A temporary impact is defined as an impact that will remove or disturb vegetation and will be restored or revegetated to its original condition with the same species or vegetation communities as the resources being impacted and no further mitigation is required. Additionally, the restored/revegetated area will not be used towards mitigation credit. On-site temporary impacts include trenching and construction of a water main between the water tanks and residential area in the eastern portion of the site as shown on Figure 3.1-7a.

- Impact neutral areas, in accordance with County Guidelines of Significance, are not considered removal areas, but cannot be credited toward mitigation requirements. The impact neutral area on the Project Site is confined by the water tanks and access road separating it from the majority of the preserved open space.

On-site Impacts

Development of the Proposed Project would have adverse impacts on various biological resources present on the Project Site. The Proposed Project would develop approximately 217.8 acres of the site for residential and associated uses, including parks, ~~recreational trails,~~fire access road, and an elementary school. This area includes a 100-foot Limited Building Zone Easement, brush management zone, and water tanks. The Proposed Project will include a WWTP and wet weather ponds in the southern portion of the Project Site. As discussed in the Chapter 1.0, to minimize bullfrog use of the water storage and detention basins associated with the WWTP, an exclusion fence shall be installed and maintained around the perimeter of each basin. The fence will be designed to prevent adult bullfrogs from entering the basins while minimizing obstructions to bird and mammals. The fence and basins will be monitored once yearly by a qualified biologist to determine the presence or absence of bullfrogs or other exotic amphibians using the basins. If bullfrogs are observed in the basins, they will be removed by the biologist using methods consistent with similar programs implemented by the DEH. Monitoring efforts shall be implemented once yearly after heavy rains when the basins will be inundated and provide suitable conditions for bullfrog use and observation. The County Department of Parks and Recreation as well as the DEH will be provided yearly letter reports for five years following initial use of the detention basins. These agencies will also be contacted as necessary to determine the need and manner of bullfrog eradication efforts.

Vegetation communities affected by grading on the Project Site include coastal sage scrub, disturbed coastal sage scrub, southern mixed chaparral, coast live oak woodland, mixed willow/mule fat scrub along with annual grassland, agriculture, pastureland, open water, non-native trees and disturbed/developed areas. The anticipated on-site impacts to vegetation communities are shown on Figure 3.1-7a-c and listed in Table 3.1-2.

As described further below, implementation of the Proposed Project would result in direct and indirect impacts to potentially occupied habitat of two federal listed wildlife species; California gnatcatcher (threatened) and arroyo toad (endangered). Proposed grading would result in the removal of approximately 12.6 acres of occupied habitat for California gnatcatcher. On-site impacts also include permanent impacts to 0.83 acre of ACOE jurisdictional waters and 0.93 acres of CDFG jurisdictional waters (GLA 2009).

Off-Site Impacts

Proposed off-site improvements including grading, road construction and improvements and the extension of water and wastewater transmission lines would result in impacts to biological resources. Specifically, road improvements are proposed for Pala Mesa Drive, Pankey Road, Pala Mesa Heights Drive, Horse Ranch Creek Road, a residential connection road, and water tank access road. The extension of water ~~and wastewater~~ pipelines and connection to the Second Aqueduct ~~lines~~ associated with the preferred ~~utility~~ alignment ~~and connection to the Second San Diego Aqueduct~~, located west of I-15, were surveyed. While the alignment would be within road right of way, some upland vegetation would be removed as shown on Tables 3.1-3 and 3.1-4, and Figures 3.1-7 a, b, and c. No wetlands would be affected by the connection to the Second Aqueduct. ~~would include the placement of transmission lines within the existing or improved roadways identified above and discussed below. Should this alignment be selected, disturbance of additional areas would not be required.~~

Widening and realignment of portions of SR-76 (from I-15 east 1.3 miles) has already been permitted separately by different applicants (Pala Band of Mission Indians, Granite Construction Company, and Caltrans) and is not a part of the Proposed Project. As discussed in detail below, development of off-site improvement areas would result in the permanent removal of approximately 64.6 acres of natural vegetation communities in additional to temporary construction-related impacts.

Potential impacts associated with off-site improvements are listed in Tables 3.1-3 and 3.1-4 and shown on Figures 3.1-7 a, b, and c. These tables also identify which improvements may affect federally listed species.

Specific off-site improvements associated with Horse Ranch Creek Road, Pala Mesa Heights Drive, Pankey Road, and the placement of water/ wastewater transmission lines within the roadways or right of ways, would remove 0.9 acres of occupied California gnatcatcher habitat. Another 1.0 acres of unoccupied gnatcatcher habitat would be removed in off-site improvements associated with Pala Mesa Drive, a portion of Horse Ranch Creek Road, the water and wastewater lines and grading along the southern edge of the Project Site. It is anticipated that 3.7 acres of suitable least Bell's vireo habitat (southern willow scrub and southern arroyo willow riparian forest) may be lost due to the construction/widening of Horse Ranch Creek Road, Pala Mesa Drive, and off-site grading along the southern edge of the Project Site.

The off-site development of the Proposed Project will result in permanent impacts to 2.29 acres of ACOE, CDFG jurisdictional waters and RPO wetlands and temporary impacts to 2.04 acres of ACOE, CDFG and RPO wetlands jurisdiction off-site (GLA 2009).

Special Status Species (Guidelines 1 through 10)

A significant impact would occur if the project adversely affects special status plant or animal species.

Special Status Plant Species (Guidelines 2 & 3)

No special status plant species have been detected on the Project Site. Therefore, no direct or indirect impacts would be expected to special status, threatened, or endangered plant species.

Threatened or Endangered Wildlife Species (Guideline 1)

The Project Site is located in the vicinity of known occurrences of the arroyo toad, California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. Potential direct and indirect impacts associated with on and off-site improvements are described in the following paragraphs. In addition, this section describes potential project effects to Designated Critical Habitat for the California gnatcatcher, Designated Critical Habitat for the least Bell's vireo and Proposed Critical Habitat for the southwestern willow flycatcher.

Arroyo Toad (Guidelines 1 and 4)

One arroyo toad was located on the Project Site using low quality foraging and aestivation habitat south of the former alignment of the SR-76 prior to the current realignment construction. Road construction has created a barrier to arroyo toad movement from the San Luis Rey River to the low quality aestivation habitat in the southernmost portion of the site. The permanent barrier between the south side of SR-76 and the Project Site eliminates any potential use of the Project Site by arroyo toad.

Direct Impacts

The Proposed Project will not have any permanent or temporary direct effects on arroyo toad. Likewise, no Critical Habitat for the arroyo toad will be impacted by the Proposed Project. Therefore, direct impacts to arroyo toads and their habitat are **less than significant**.

Indirect Impacts

Construction activities in the vicinity of arroyo toads and their habitat may result in indirect impacts. Indirect impacts may include increased nighttime lighting, erosion, and debris or construction equipment within identified habitat. Additionally, all drainage from proposed roads and structures associated with the Proposed Project would flow into a storm drain system and detention basins. Any changes in the quantity or quality of run-off from the Project Site that would increase sediment load in nearby occupied habitat could also result in indirect impacts.

Therefore, indirect impacts to arroyo toads and their habitat associated with construction activities and/or debris and polluted water entering into the storm drain system would be considered a **significant impact** (**BR-1**).

California Gnatcatcher (Guidelines 1, 7, and 9)

In 2007, one California gnatcatcher was observed on the site in the northern patch of coastal sage scrub and two other individuals were observed near the Pankey Road and water line off-site improvement areas. Based on the quality and maturity of the coastal

sage scrub on the site and the presence of the male California gnatcatcher in 2007 all coastal sage scrub on the site is, assumed to be suitable and occupied California gnatcatcher habitat.

Direct Impacts

Direct impacts to California gnatcatcher habitat include both permanent and temporary impacts to coastal sage scrub vegetation.

Permanent impacts include approximately 12.6 acres on-site and 0.9 acres in off-site improvement areas (Horse Ranch Creek Road, Pala Mesa Heights Drive, Pankey Road, and water lines), totaling 13.5 acres.

In addition, 1.0 acre of unoccupied coastal sage scrub and disturbed coastal sage scrub would be removed in off-site improvement areas for Pala Mesa Drive, a portion of Horse Ranch Creek Road, water lines, and grading along the site edge. No California gnatcatchers have been observed south of the site or west of I-15 in these off-site improvement areas and are therefore considered unoccupied. No California gnatcatchers have been observed within these specific improvement areas. Overall, Proposed Project impacts total 14.5 acres of occupied and unoccupied habitat due to permanent removal of habitat.

Additionally, there would be temporary on-site impacts to 0.2 acre of presumed occupied California gnatcatcher habitat and temporary off-site impacts to 0.1 acre of occupied and unoccupied habitat. These temporary impacts would result specifically from improvements to Pala Mesa Heights Drive.

Approximately 34.2 acres of Designated Critical Habitat for the California gnatcatcher would be removed through project grading. Within the on-site grading area, approximately 11.6 acres of Critical Habitat consists of habitat containing Primary Constituent Elements (PCEs) for this species (i.e. coastal sage scrub and disturbed coastal sage scrub vegetation). The remaining 22.6 acres consist of agricultural areas, annual grasslands, and disturbed areas and do not contain PCEs for this species. Off-site, 40.1 acres of Critical Habitat are within proposed off-site improvement areas of which 1.9 acres consists of coastal sage scrub vegetation. A total of 13.5 acres of Designated Critical Habitat that contain PCEs on and off-site will be impacted by the project. These 13.5 acres are included within the 14.5 acres of identified impacts to California gnatcatcher habitat; the remaining impacts to 1.0 acre of gnatcatcher habitat are outside the Critical Habitat boundaries.

Permanent removal of 14.5 acres of occupied, unoccupied and disturbed coastal sage scrub and temporary impact to 0.3 acre of occupied, unoccupied and disturbed coastal sage scrub would be considered a **significant impact** (**BR-2**).

Indirect Impacts

Construction activities and increased human presence in the vicinity of California gnatcatchers and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. Public access into the proposed open space through

existing trails may result in people and pets entering the suitable habitat areas. These edge effects represent a **significant impact** (**BR-3**).

Least Bell's Vireo (Guidelines 1 and 7)

Least Bell's vireos have been observed in several locations along the San Luis Rey River and Horse Ranch Creek in the vicinity of the Project Site. No least Bell's vireo habitat occurs on-site.

Direct Impacts

No direct on-site impacts to least Bell's vireo are anticipated as a result of the Proposed Project.

Off-site impacts would result due to roadway improvements. It is anticipated that 3.7 acres of occupied southern willow scrub and southern arroyo willow riparian forest habitat would be removed by the construction/widening of Horse Ranch Creek Road, Pala Mesa Drive, and grading along the Project Site edges just off-site.

Temporary impacts to 2.2 acres of suitable habitat for least Bell's vireo would occur due to grading along the Project Site edge, Horse Ranch Creek Road and Pala Mesa Drive construction.

No on or off-site improvements are anticipated to adversely affect the least Bell's vireo Critical Habitat with PCEs. Impacts to 3.1 acres of least Bell's vireo Critical Habitat consist of non-native trees and pasture, which are not PCEs for this species.

The permanent removal of 3.7 acres of suitable habitat and temporary impacts to 2.2 acres of suitable habitat for least Bells' vireo would be considered a **significant impact** (**BR-4**).

Indirect Impacts

Construction activities in the vicinity of least Bell's vireos and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. These edge effects are considered a **significant impact** (**BR-5**).

Southwestern Willow Flycatcher (Guidelines 1 and 7)

No southwestern willow flycatchers have been detected on-site or in the vicinity of off-site improvement areas.

Direct Impacts

No on-site project impacts would have any direct impacts on southwestern willow flycatcher and would not remove any suitable habitat for this species.

Suitable, but unoccupied, southwestern willow flycatcher habitat would be removed as a result of off-site improvements including the construction/widening of Pala Mesa Drive and Horse Ranch Creek Road. These impacts will cover the same permanent impacts

associated with removal of least Bell's vireo habitat and include 3.7 acres of southern arroyo willow riparian forest and southern willow scrub.

Temporary impacts to 2.2 acres of suitable habitat would occur due to grading along the edge of the Project Site and the construction/improvement of Horse Ranch Creek Road and Pala Mesa Drive.

No other on or off-site improvements related to this project are anticipated to adversely affect the southwestern willow flycatcher Critical Habitat.

The permanent removal of 3.7 acres of suitable habitat and temporary impacts to 2.2 acres of suitable habitat for southwestern willow flycatcher would be considered a **significant impact** (**BR-6**).

Indirect Impacts

Construction activities in the vicinity of southwestern willow flycatchers and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. These edge effects are considered a **significant impact** (**BR-7**).

Special Status Wildlife Species (Guidelines 2, 3, and 6)

Fourteen special status wildlife species have been observed on-site and would be adversely affected by development of the Proposed Project. The species recorded on-site include Belding's orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, western spadefoot toad, barn owl, northwestern San Diego pocket mouse, and western bluebird (San Diego County Group 2) and two-striped garter snake, turkey vulture, northern harrier, and southern California rufous-crowned sparrow (San Diego County Group 1). These species are all California Species of Special Concern except for barn owl, western bluebird, and turkey vulture and are found in the scrub and grassland areas on-site. Off-site improvements may also adversely affect an additional seven special status species: green heron, yellow warbler (Group 2); white-faced ibis; Cooper's hawk, red-shouldered hawk, white-tailed kite, and yellow-breasted chat (Group 1).

The scrub and non-native grassland vegetation provides foraging habitat for birds of prey (raptors). Development of the Proposed Project will permanently impact foraging habitat on- and off-site. These impacts include 14.5 acres of coastal sage scrub, 2.2 acres of southern mixed chaparral, 30.2 acres of pasture and 15.3 acres of non-native grassland for a total of 62.2 acres of habitat. Temporary impacts include 0.3 acre coastal sage scrub, 0.2 acre of southern mixed chaparral, and 5.0 acres of pasture and non-native grassland for a total of 5.5 acres of habitat. The overall loss of foraging habitat resulting from development of on- and off-site areas is considered a **significant impact** (**BR-8**).

Western spadefoot toads, also listed as a California Species of Special Concern, have been determined to be rare in the region by the USFWS and the County of San Diego, and have been recorded in the orchard and disced agricultural areas on the Project Site. Higher quality habitat for this species occurs off-site to the west and south of the Project

Site. Nevertheless, based on the regional scarcity of this species, Proposed Project implementation would result in a **significant impact** (**BR-9**).

The 14 special status wildlife species that have been recorded on-site are found within various vegetation communities as follows:

Coastal sage scrub provides suitable habitat for Belding's orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, southern California rufous-crowned sparrow, northern harrier, and northwestern San Diego pocket mouse.

Southern mixed chaparral provides habitat for coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, southern California rufous-crowned sparrow, and northwestern San Diego pocket mouse.

Non-native grasslands and pastureland provide habitat for Belding's orange-throated whiptail, coastal western whiptail, Coronado western skink, San Diego ringneck snake, two-striped garter snake, northern harrier, turkey vulture, barn owl, white-tailed kite, and northwestern San Diego pocket mouse.

Southern arroyo willow riparian forest, willow/mule fat scrub and **southern willow scrub** provide habitat for Coronado western skink, San Diego ringneck snake, two-striped garter snake, yellow warbler, yellow breasted chat, green heron, western bluebird, white-faced ibis, white-tailed kite, red-shouldered hawk, and Cooper's hawk.

Development of the Proposed Project, including on- and off-site improvements will permanently impact 14.5 acres of coastal sage scrub, 2.2 acres of chaparral, 30.2 acres of acres of pastureland and 15.3 acres of non-native grassland for a total of 62.2 acres of on- and off-site habitat potentially supporting special status wildlife. Temporary impacts include 0.3 acre of coastal sage scrub, 0.2 acre of chaparral, and 5.0 acres of pastureland and non-native grassland for a total of 5.5 acres of on- and off-site habitat. The overall loss of this habitat supporting special status wildlife represents a **significant impact** (**BR-10**).

Impacts to non-native grassland, pastureland, southern arroyo willow riparian forest, willow/mule fat scrub, and southern willow scrub are not anticipated to substantially diminish or threaten the regional distribution of these 14 special status wildlife species.

Nesting Birds (Guideline 10)

The Project Site and off-site improvement areas provide habitat for a variety of native bird species including raptors. No nests, including raptor nests, were observed during NRC surveys conducted between 2002 and 2007; however, direct disturbance to the nests of species protected by the Migratory Bird Treaty Act would be a violation of Migratory Bird Treaty Act of 1918. Nests, eggs and individual birds of these species are also protected under Fish and Game Code Section 3503. Therefore, any disruption to protected nesting birds represents a **significant impact** (**BR-11**).

General Indirect Impacts (Guideline 7)

Lighting. External community lighting may have an effect on species near the edge of open space if it is allowed to shine into preserved areas. This represents a **significant impact** (**BR-12**).

Noise. Noise resulting from implementation of the Proposed Project includes both temporary and permanent noise sources. Proposed Project construction would create new temporary noise sources and daily traffic associated with the completion of the Proposed Project would permanently increase ambient noise levels in the vicinity of habitats potentially occupied by California gnatcatcher, least Bell's vireo, and other avian species. Based on an acoustical study completed by RECON, current noise levels adjacent to the I-15 and SR-76 exceed 60 CNEL near Horse Ranch Creek and the San Luis Rey River. These elevated levels are likely to have habituated many species to "urban" noise. Anticipated changes in noise levels must be interpreted assuming this existing condition. Future projected noise contour lines take into account attenuation from the site topography, vegetation, and proposed buildings. Based on the acoustical study it was determined that future ambient noise projected to be generated by I-15, SR-76, Horse Ranch Creek Road, and Pala Mesa Drive do not exceed 60 CNEL at the open space within the eastern side of the Project Site (See Figure 3.5-3). Impacts to wildlife residing within the open space due to traffic-related noise are **less than significant**.

Construction equipment associated with grading can be expected to generate A-weighted hourly average noise levels between 77 and 91 [dB(A) Leq] at 50 feet from the source (RECON 2009a). With flat-site and hard site conditions the average noise level at 1,800 feet would be approximately hourly 60 dB(A) Leq. Construction of off-site facilities will not use large grading equipment and is not expected to generate average noise levels that would adversely affect sensitive wildlife species.

There is no scientific or incidental evidence that suggests increased noise levels (i.e. 60 dB) is a biologically relevant threshold for altering or interrupting California gnatcatcher behavior (Awbrey 1993; 1995; Attwood and Bontrager 2001). Therefore, impacts to breeding, nesting, or foraging of California gnatcatchers birds resulting from Proposed Project construction or increased traffic is **less than significant**.

Increased noise levels may adversely affect breeding and nesting least Bell's vireo. This **significant** impact has been previously discussed and identified as **BR-5**.

Impacts related to the Regional Long-term Survival of County Group II Species (Guideline 3)

As discussed above and identified as **BR-9, BR-10, BR-11 and BR-12**, the Proposed Project would result in a **significant** impact to a County Group II species.

Core Wildlife Areas, and Golden Eagle Habitat (Guidelines of Significance 5 and 8)

The Proposed Project would not result in significant impacts to core wildlife areas or Golden Eagle habitat for the following reasons:

- No golden eagles are on site or within 4,000 feet of the site.

- No core wildlife areas are present on the Project Site, within the Proposed Project footprint, or in the vicinity of off-site improvement areas.

Riparian Habitat and Sensitive Natural Communities (Guidelines 11 through 15)

A significant impact would occur if the project would adversely affect riparian habitat and sensitive natural communities. Guidelines 11 through 15 were used to determine the significance of the project on riparian habitat and/or sensitive natural communities. Jurisdictional wetlands would utilize the same Guidelines, particularly Guideline 12, but are analyzed in their own section (below). Development of the Project Site would result in impacts (both on- and off-site) to a variety of vegetation communities as discussed below. Table 3.1-5 lists the on- and off-site impact acreage totals for all of the vegetation communities. Mitigation for direct impacts as discussed in detail below, consisting of the preservation of vegetation per the County mitigation ratios is also listed in Table 3.1-5.

Coastal Sage Scrub and Disturbed Coastal Sage Scrub (Guideline 11)

Coastal sage scrub vegetation covers approximately 87.1 acres (22.4 percent) of the Project Site, located at the edges of citrus and avocado orchards, providing habitat suitable to support California gnatcatchers. No other federal or State-listed threatened or endangered plant or wildlife species are known to use this habitat on the Project Site. The Proposed Project would permanently remove approximately 12.6 acres on-site and approximately 1.9 acres off-site, totaling impacts to 14.5 acres of coastal sage scrub. Temporary impacts include 0.2 acre on-site and 0.1 acre off-site. Removal of coastal sage scrub/disturbed coastal sage scrub is considered a **significant impact** (**BR-13**).

Southern Mixed Chaparral (Guideline 11)

Southern mixed chaparral vegetation covers approximately 19.6 acres (5.0 percent) of the Project Site. The Proposed Project would remove approximately 2.2 acres on-site. Removal of southern mixed chaparral is considered a **significant impact** (**BR-14**).

Coast Live Oak Woodland (Guideline 11)

Coast live oak woodland covers approximately 1.7 acres (0.4 percent) of the Project Site. The Proposed Project would remove approximately 0.1 acre on-site and approximately 0.2 acre off-site, for a total of 0.3 acre. Removal of coast live oak woodland is considered a **significant impact** (**BR-15**).

The project will also remove 0.4 acre of the 50-foot oak root zone on-site and 1.1 acres off-site for a total of 1.5 acres. Many of these trees are individual oak trees located within the coastal sage scrub and chaparral. These 1.5 acres have already been accounted for with impacts to coastal sage scrub, chaparral, and disturbed impacts.

Non-native Grassland (Guideline 11)

Non-native (annual) grassland vegetation covers approximately 31.9 acres (8.2 percent) of the Project Site. The Proposed Project would remove approximately 9.9 acres on-site and approximately 5.4 acres off-site for a total of 15.3 acres. Temporary impacts include less than 0.1 acre onsite and 2.1 acres off-site. Removal of non-native grassland is considered a **significant impact** (**BR-16**).

Agriculture (Guideline 11)

Agricultural areas cover approximately 209.9 acres (53.9 percent) of the Project Site. The Proposed Project would remove approximately 160.6 acres on-site and approximately 3.8 acres off-site of for a total of 164.4 acres. Temporary impacts include 0.3 acre on-site and 1.4 acres off-site. Biological impacts related to the removal of agricultural lands would be **less than significant**.

Non-native Trees (Guideline 11)

Non-native trees cover approximately 8.3 acres (2.1 percent) of the Project Site. The Proposed Project would remove 8.1 acres on-site and 1.0 acres off-site for a total of 9.1 acres. Temporary impacts would include 0.2 acre off-site. Impacts associated with the removal of non-native trees would be **less than significant**.

Open Water (Guideline 11)

The man-made open water ponds cover approximately 0.7 acre of the Project Site. The Proposed Project would remove the 0.7 acre on-site and no acres off-site. The vegetation surrounding these open water features is not comprised of a distinct vegetation type or plant community and is not delineated as jurisdictional wetlands (GLA 2007). Impacts associated with the removal of these open water ponds would be **less than significant**.

Pastureland (Guideline 11)

Pastureland areas cover approximately 1.5 acres (0.4 percent) of the Project Site. Proposed development would result in the removal of approximately 1.5 acres on-site and 28.7 acres off-site for a total of 30.2 acres. Temporary impacts include 2.8 acres off-site. The pasture land is composed of non-native grasses and has a similar habitat value as non-native grassland. Removal of this vegetation community is considered a **significant impact** (**BR-17**).

Disturbed and Developed

The disturbed and developed areas cover approximately 28.7 acres of the Project Site. The Proposed Project would remove approximately 22.2 acres on-site, and 19.5 acres off-site. The Proposed Project includes 5.9 miles of multi-use trails (hiking and horseback riding). The trail system will utilize ~~E~~existing dirt roads located within the proposed natural and agricultural open space. ~~ will contribute to this trail system.~~ Temporary impacts include less than 0.1 acre on-site and 0.3 acre off-site. Impacts associated with removal of these disturbed areas would be **less than significant**.

Wetland Vegetation (Guideline 12)

On-site wetland vegetation includes ~~less than~~ 0.1 acre of isolated willow/mule fat scrub. This area exists due to runoff from adjacent agricultural operations and would cease to be a wetland if these agricultural activities would cease; however, the Proposed Project would remove all of the willow/mule fat scrub. Off-site improvement areas would include permanent impacts to 0.95 acre of southern willow scrub, 2.~~8~~ 77 acres of southern arroyo willow riparian forest and 0.32 acre of freshwater marsh. These impacts are a

result of construction/improvement of Pala Mesa Drive, grading along the edge of the Project Site, and construction of Horse Ranch Creek Road and would result in permanent impacts to the riparian vegetation surrounding Horse Ranch Creek. Total on- and off-site permanent impacts to wetland vegetation would be 4.14 acres.

Temporary~~,~~ impacts due to wetland vegetation occur off-site due to Pala Mesa Drive, Horse Ranch Creek Road, and grading along the edge of the Project Site would include ~~less than 1.0 acre (~~0.02 acre~~)~~ of southern willow scrub and 2.13 acres of southern arroyo willow riparian forest. No temporary impacts to on-site wetland vegetation were noted.

Permanent on and off-site impacts to 4.14 acres and temporary on and off-site impacts to 2.15 acres of of riparian/wetland vegetation (willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest and freshwater marsh) ~~on- and 3~~2.1 ~~acres (southern willow scrub and southern arroyo willow riparian forest) off-site~~ is considered a **significant impact** (**BR-18**).

The riparian habitat located off-site adjacent to the southwestern portion receives runoff from Horse Ranch Creek (the area to the north) and the area to the east. The entire watershed tributary to the riparian area is approximately 12 square miles. The Horse Ranch Creek watershed consists of natural vegetation, scattered low-density residences, and a golf course along Pala Creek with medium- to high-density residences around the vicinity of the golf course (Pala Mesa Resort). In the pre-project condition, the on-site portion, or the area to the east of the riparian area, is approximately 4 percent of the entire watershed that is tributary to the riparian area. It is important to note that the northern portion of the project does not immediately convey flows to the riparian area. Due to irrigation runoff, severe erosion has occurred and the current drainage pattern conveys flows associated with this northern area immediately west to the low-flow portion of Horse Ranch Creek. These combined flows are then conveyed southerly towards the riparian area.

There are no anticipated impacts to off-site riparian habitat or the species this habitat supports from a loss of agricultural run-off from the Project Site. The Proposed Project has been designed to maintain pre-project drainage patterns and mitigate for hydromodification (erosion/degradation). The total area of the drainage basins in the post project condition, tributary to the riparian area, is 292.7 acres (approximately 4 percent of the entire Horse Ranch Creek watershed), which is very similar to that of the pre-project condition. The watershed associated with Horse Ranch Creek (the area to the north) that is tributary to the riparian area in the pre-project condition will remain unchanged in the post project condition as a result of the Proposed Project. Additionally, in the post project condition, agricultural groves will be preserved and irrigation runoff will be captured and conveyed through the Proposed Project and outfall at similar locations when compared to the pre-project drainage patterns. This runoff will be conveyed to the riparian area and then confluence with the Horse Ranch Creek flows. The on-site portion of the Proposed Project will convey flows to the riparian area through a combination of urban runoff and the irrigation runoff associated with the groves. For these reasons, the riparian area will continue to receive runoff in the post-project condition.

These design features would ensure that areas downstream of the Project Site which currently receive runoff during storm events would continue to do so once the Proposed Project is built. The Proposed Project design includes several detention facilities

strategically located throughout the Proposed Project to maintain connections to existing off-site drainage patterns. It is anticipated that the storm run-off during the wet season and urban run-off during the dry season would be captured in the detention basins and released at controlled flow rates and durations into these existing drainage patterns. Riparian habitat downstream of the Project Site would still be maintained by these flows much like the pre-project condition without increasing erosion and degradation. Thus, impacts would be **less than significant**.

Impacts to Sensitive Habitat due to Use of Groundwater (Guidelines 13)

The Proposed Project would not draw down the groundwater table to the detriment of groundwater-dependent habitat. Recycled water will be the primary source for irrigating the retained on-site groves; however, groundwater may be utilized in the event of a dry season. This will not result in an increase in the demand for groundwater ~~table~~ above existing consumption levels and impacts will be **less than significant**.

Impacts due to Increase Human Access (Guideline 14)

The Proposed Project has been designed to limit human and domestic animal access to sensitive habitats. As identified in the Trails Plan, ~~P~~public trails in the proposed open space will use existing dirt roads and trails. Any existing trails/dirt roads not used as part of the trail system will be closed and restored to natural habitat. A paved fire access road, extending northeasterly from Street E to Rice Canyon Road, will provide alternative access for emergency vehicles. Signs and/or fences will be used to deter access into sensitive habitats. Fences or walls will separate residential areas from the proposed open space limiting access by the public and domestic animals. No invasive plant species will be used in the landscaping palette. For these reasons, impacts to sensitive habitat associated with increased human access, or competition from domestic, pest or exotic species is **less than significant**.

Impacts due to Failure to Include Adequate Wetland Buffers (Guideline 15)

A 100-foot wetland buffer is designed around the western portion of the Project Site adjacent to willow riparian forest vegetation of Horse Ranch Creek. This proposed open space is intended to provide protection to the existing wetland area located on the adjacent Campus Park project site. The width of the buffer is adequate to protect the riparian forest that has been heavily grazed by cattle. Therefore, impacts to sensitive habitat due to inadequate wetland buffers are **less than significant.**

Jurisdictional Waters including Wetlands (Guidelines 11 through 15)

A significant impact would occur if the project would adversely affects jurisdictional wetlands and waterways

On-site Impacts

Jurisdictional delineations were conducted on- and off-site. The Jurisdictional Delineations are included in Appendix F-2 of the EIR. The on-site development of the Proposed Project would permanently remove 0.83 acre of ACOE jurisdictional waters, of which 0.14 acre are jurisdictional wetlands as defined by the ACOE; 0.~~07~~ 06 acre are ACOE isolated waters, ~~none of which consist of wetlands~~; and 0.~~74~~ 69 acre is~~are~~ non-

wetland waters. The Proposed Project would permanently remove 0.93 acre of CDFG jurisdictional waters, of which 0.34 acre was delineated as wetlands ~~is vegetated riparian habitat~~ and 0.~~69~~ 59 acre as~~is~~ non-wetland waters. Of the 0.93-acre maximum jurisdictional area, 0.1 acre is included with the on-site impacts to wetland vegetation (identified as Impact BR-18). The remaining 0.83 acre is a separate impact to unvegetated wetlands or non-wetland drainages. No temporary on-site impacts were identified.

There are no County RPO wetlands on-site. Although the 0.14 acre drainage located in the central portion of the Project Site, as shown on Figure 3.1-7b, supports several riparian vegetation species and hydric soils, this drainage is not considered an RPO wetland. Section 86.602(q)(2)(bb) of the RPO states that lands that have been disturbed by past legal actions, have negligible biologic function and value, and that do not support a substantial or locally important population of wetland dependent species are not considered to be "wetlands". The wetland attributes in this drainage are the result of legal agricultural irrigation runoff, the biological functions and values are negligible, and the area does not support any substantial or locally important wetland dependent species.

A 100-foot wetland buffer is designed around the western portion of the site adjacent to willow riparian forest vegetation of Horse Ranch Creek. As stated above, this proposed open space is intended to provide protection to the existing wetland area located on the adjacent Campus Park project site. A summary of the on-site jurisdictional wetland impacts is provided in Table 3.1-6.

Off-Site Impacts

Off-site improvements associated with the extension of Pala Mesa Drive, and the construction of Horse Ranch Creek Road, would result in permanent impacts to jurisdictional drainages and wetlands (GLA 2009). The delineation report for on-site development includes a portion of Horse Ranch Creek Road, which, since the report, has been redesigned and is now considered off-site. For consistency between the GLA report and current impact analysis, Horse Ranch Creek Road impacts are identified separately from other off-site impacts. A summary of the off-site jurisdictional wetland impacts is provided in Table 3.1-6.

Horse Ranch Creek Road Improvements

Construction of the portion of Horse Ranch Creek Road from the southern terminus of Pankey Road to the western boundary of the Project Site will impact 0.15 acre of ACOE jurisdictional wetlands and less than 0.01 ACOE waters. Of the 0.15 acre of impacts to ACOE jurisdictional wetlands: 0.04 acre is a temporary impact and 0.11 acre is a permanent impact.

Horse Ranch Creek Road impacts to CDFG jurisdiction includes 0.15 acre of vegetated riparian habitat and less than 0.01 acre of unvegetated streambed. Of the 0.15 acre of impacts to CDFG jurisdictional wetlands, 0.04 acre is a temporary impact and 0.11 acre is a permanent impact.

The impacts to RPO wetlands associated with Horse Ranch Creek Road include 0.15 acre of which 0.04 acre are temporary and 0.11 acre are permanent.

Remaining Off-site Improvements (excluding Horse Ranch Creek Road)

The remaining off-site improvements for Pala Mesa Drive would temporarily impact 2.0 acres of ACOE jurisdiction jurisdictional wetlands and less than 0.01 acre of ACOE waters and permanently impact 2.18 acres ACOE wetlands and less than 0.01 acre of ACOE waters. These off-site improvements would temporarily impact 2.013 acres of CDFG jurisdiction vegetated riparian habitat and less than 0.01 acre of unvegetated streambed and permanently impact 2.18 acres of CDFG vegetated riparian habitat and less than 0.01 acre of unvegetated streambed. Permanent linear-foot impacts under ACOE and CDFG jurisdiction total 2,246 linear feet.

Summary of Impacts to Jurisdictional Waters

In summary, permanent on-site impacts to jurisdictional areas total a maximum of 0.93 acre. TPermanent he off-site improvements impacts total 2.29 acres, and temporary off-site impacts total 2.04 would temporarily impact 2.0 acres (83,200 square feet) and permanently impact 2.18 acres of RPO wetlands.

On- and off-site permanent impacts to jurisdictional wetlands totaling 3.12 22 acres would be considered a **significant** impact (**BR-19**). Temporary impacts to jurisdictional wetlands on- and off-site totaling 2.04 acres impacts would also be considered a **significant** impact (**BR-20**).

Wildlife Movement (Guidelines 16 through 21)

A significant impact would occur if the project would adversely affect wildlife movement.

Three wildlife movement corridors on or near the Project Site are discussed in Section 3.1.1 above and shown in Figure 3.1-6.

A major portion of Corridor 1 will be preserved in natural open space, allowing for continued use for wildlife movement. A proposed fire access road paved and varying in width from 20' - 24' feet will extend northeasterly from Street E to Rice Canyon Road and will partially follow existing dirt roads that cross Corridor 1 in the northeastern corner of the Project Site. The elevation of the road ranges from approximately 520 at the cul-de-sac to a peak elevation of 740 at the ridge with manufactured slopes, some exceeding 60 feet in height. The fire access road will not create a barrier to wildlife movement as it will not have fences or walls along its edge and will not be elevated significantly above the natural contours of the hillside. Wildlife will be able to move freely across the road to adjacent vegetation to the north and south.

Similarly, the Proposed Project would not adversely affect Corridors 2 and 3. Off-site widening and realignment of SR-76 permitted by other applicants is adjacent to Corridor 2 along the San Luis Rey River. The SR-76 improvements would not result in any physical or visual obstruction to wildlife movement along Corridor 2. No off-site improvements would occur near Corridor 3 in Rice Canyon located east of the project.

As discussed in Section 3.1.1 above, the riparian habitat along Horse Ranch Creek is a stepping stone or habitat island for riparian and migratory birds and a local path for small animal movement, but is not considered a movement corridor. No large wildlife species such as deer are expected to use this drainage due to the extensive barb wire fencing to

the north and south and road barriers such as I-15, Horse Ranch Creek Road, and SR-76. The construction of Pala Mesa Drive to the west of the Project Site is south and west of the main drainage of Horse Ranch Creek. The proposed location of the road will not obstruct local small wildlife species travel within the riparian vegetation, prevent access to water sources or foraging habitat, or prevent migratory birds from utilizing the area.

In summary, development of the Project Site and associated off-site improvement areas would not impact regional wildlife movement based on the following:

- The Proposed Project would not prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction. The Proposed Project has been designed to avoid the three mapped wildlife movement corridors in the area. Construction of Pala Mesa Drive will occur south of the main drainage of Horse Ranch Creek to avoid local wildlife and migratory bird movement (Guideline 16).

- The Proposed Project would avoid substantial impacts to areas that are used for wildlife movement through the region. Impacts near Corridor 1 include installation of water tanks and improvements to access roads that are currently adjacent to the corridor. These improvements would not substantially change the structure of the corridor from its current state (Guideline 17). The Proposed Project would not create artificial wildlife corridors. Corridor 2 would not be altered or rerouted. Development of the Project Site would not adversely affect wildlife movement within any movement areas in upland habitat (e.g., ridgelines) north or east of the property (Corridor 1). Proposed impacts for a water tank site and access road in the eastern portion of the site are not expected to significantly affect the path of Corridor 1. There is currently a large tank and access road in this proposed impact area. New water tanks will be placed where a tank is currently present on the top of the ridgeline above the path of wildlife movement. Large wildlife species such as coyotes have been observed using the existing access road and eastern slope that provide the least path of resistance from this area to Monserate Mountain to the north. Although additional tanks will be placed at the highest point on the ridge in the same area as the existing tank, it should not affect the wildlife movement because they prefer the road and slopes below the existing tank. A portion of the access road south of the tanks will be improved, but will occupy the same approximate area as the existing road. Installation of the water tanks and routine maintenance would be brief and infrequent and are not anticipated to affect wildlife movement near the tank site. These improvements will not cause a barrier to wildlife movement. Past experience has also shown that such limited facilities will not significantly change the visual features of the area and should not affect the movement of large wildlife species. Wildlife would be able to continue using Corridor 1 without altering their current path of travel along the access roads and eastern slope (Guideline 18).

- The Proposed Project has been designed to reduce noise and nighttime lighting to levels that will not significantly impact wildlife behavior. Lighting will be directed away from the surrounding habitat. Noise will not be sustained at levels that would disrupt wildlife movement during construction or general traffic conditions (Guideline 19).

- The Proposed Project would not restrict the width of any wildlife corridors through removal of vegetation or barrier. The Proposed Project would remove a small amount of vegetation around the existing tank, but this is on a raised peak that is not

part of the path for wildlife movement. The tank site would remain as a tank site and will not create additional barriers to wildlife movement (Guideline 20).

- The tank site and access roads near Corridor 1 would not be altered significantly and therefore would not change the visual continuity of the corridor (Guideline 21).

Overall, impacts to wildlife movement corridors would be **less than significant**.

Local Policies, Ordinances, and Adopted Plans (Guidelines 22 through 33)

A significant impact would occur if the project would affect resources protected by local ordinances and NCCP.

NCCP (Guidelines 22, 23, 25, 28 and 31)

Based on the allowed "take" of coastal sage scrub vegetation within the County of San Diego under the NCCP 4(d) Rule (approximately 11,000 acres) the anticipated impacts to 14.5 acres of mature and disturbed coastal sage scrub on-site and off-site would not exceed the five percent allowance. Proposed Project impacts would be **less than significant** (Guideline 22). The Proposed Project is consistent with the proposed subregional NCCP. The project design conforms to the proposed "take authorized" and "preserve" areas developed for the North County MSCP, as discussed in Section 3.1.1 and shown on Figure 3.1-2. Proposed Project impacts would be **less than significant** (Guideline 23).

Impacts to coastal sage scrub covered under the NCCP Process Guidelines are discussed above and identified as **BR-13**. The Proposed Project minimizes impacts to coastal sage scrub, preserving 85.5 percent on-site. Proposed Project impacts would be **less than significant** (Guideline 25).

The Proposed Project would not preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines. As discussed above, Corridors 1, 2, and 3 will not be significantly impacted by the Proposed Project, and impacts would be **less than significant** (Guideline 28).

The Proposed Project would not reduce the likelihood of survival and recovery of listed species in the wild. Species-specific mitigation is proposed for arroyo toad, California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. Any required permits to take endangered or threatened species will be obtained prior to grading. Project impacts would be **less than significant** (Guideline 31).

<u>Habitat Loss Permit (HLP (Guideline 25)</u>

The Proposed Project is processing a Section 7 take permit with USFWS. However, should the draft North County MSCP be adopted prior to the development of the Proposed Project, the County would implement the 4(d) Rule and NCCP Guidelines through the HLP process. Projects with coastal sage scrub, both occupied and unoccupied, can receive take authorization by obtaining an HLP, eliminating the need for a Section 7 consultation or Habitat Conservation Plan. The HLP is typically granted prior to grading, and requires that certain findings be made. These findings and the Proposed

Project's compliance, are summarized below, and would be expanded and finalized by County staff when the actual permit is granted:

- The habitat loss does not exceed the five percent guideline: As of late September 2007, the County's allowed loss was roughly 1,800 acres of coastal sage scrub. The Proposed Project will result in the permanent loss of 14.5 acres of coastal sage scrub and temporary loss of 0.3 acres. Impacts would not be significant.

- The habitat loss will not preclude connectivity between areas of high habitat values: Proposed Project open space is directly connected to planned open space to the north and east. Impacts would not be significant.

- The habitat loss will not preclude or prevent the preparation of the subregional NCCP: The Proposed Project was planned in conjunction with the proposed North County MSCP. That proposed plan shows this property as "Take Authorized" and "Preserve." The Proposed Project is consistent with the proposed MSCP map. Impacts would not be significant.

- The habitat loss has been minimized and mitigated to the maximum extent practicable in accordance with Section 4.3 of the NCCP Process Guidelines: There are 87.1 acres of coastal sage scrub on-site. The Proposed Project will permanently remove approximately 14.5 percent (12.6 acres). An additional 1.9 acres of coastal sage scrub will be affected off-site due to the construction of necessary public infrastructure. Temporary impacts include 0.2 acre on-site and 0.1 acre off-site. Loss of coastal sage scrub has been avoided to the maximum extent practicable. Mitigation for permanent impacts to coastal sage scrub vegetation communities will be provided on-site at a ratio of 2:1. Temporary impacts to coastal sage scrub would be mitigated through revegetation with the same species found within the impact area and is therefore not considered a loss of habitat. Proposed Project impacts would be significant and mitigated as described in Section 3.1.5.

- The habitat loss will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild: The proposed loss of less than 15 acres of possible habitat for the California gnatcatcher will not affect species survival over the long term. Impacts will be mitigated by the preservation of habitat that is located within the proposed PAMA for the North County MSCP. Impacts would not be significant.

- The habitat loss is incidental to otherwise lawful activities: The Proposed Project must be approved by the San Diego County Board of Supervisors, and by definition is a lawful activity.

Should the Proposed Project be required to conform to the HLP process, impacts associated with the take of coastal sage scrub are **less than significant**.

Resource Protection Ordinance (Guideline 24)

The Proposed Project will impact the following habitats which are considered sensitive habitat lands under the RPO: 14.5 acres of California gnatcatcher coastal sage scrub habitat of which 13.5 acres are considered occupied.

The small northwest wetland area is a man-made drainage fed by agricultural runoff and is not an RPO wetland. Wetlands within off-site improvement areas for Pala Mesa Drive and Horse Ranch Creek Road are considered RPO wetlands; however, these off-site roadway improvements would occur through properties that have a previously approved Specific Plan. Although, the Specific Plan associated with these properties has been exempted from the strict avoidance of impact provisions of the RPO per Section 86.605(b).The Proposed Project is in conformance with the RPO and impacts associated with failure to adhere to the ordinance are **less than significant**.

A 100-foot wetland buffer is proposed along the riparian woodland west of the southwestern boundary of the Project Site, adjacent to existing off-site wetlands.

MSCP (Guidelines 27, 29 and 30)

The Project Site is not within the adopted MSCP and is not subject to the BMO; however, the Proposed Project is designed to be in compliance with the proposed North County MSCP. The Proposed Project does not impact any MSCP narrow endemic plant species as defined in the existing MSCP. Proposed Project impacts to California gnatcatchers, least Bell's vireo, southwest willow flycatcher, and arroyo toads are considered a **significant impact** as identified by **BR-1, BR-2, BR-3, BR-4, BR-5, BR-6,** and **BR-7.**

Migratory Bird Treaty Act (Guideline 32)

The Project Site and off-site improvement areas provide habitat for a variety of native bird species including raptors. No nests, including raptor nests, were observed during surveys. Direct disturbance to the nests of species protected by the Migratory Bird Treaty Act would be a violation of Migratory Bird Treaty Act of 1918. Nests, eggs, and birds of these species are also protected under Fish and Game Code Section 3503. Disturbance to these nesting birds is considered a **significant impact** as identified by **BR-11.**

Other Local Ordinances (Guidelines 26)

There are no biological resources on the Project Site protected by local ordinances that are not addressed elsewhere in this report. There are no applicable management plans covering the Proposed Project area. Therefore, impacts associated with conformance with other goals, policies or planning efforts are **less than significant**.

Impact to Eagles (Guideline 33)

The Proposed Project would not result in the take of eagles, eagle eggs or any part of an eagle. No eagles were observed in the vicinity of the site. Impacts to eagles would be **less than significant**.

3.1.4 Cumulative Impact Analysis

The area encompassing the Rainbow Planning Area, Pala-Pauma Planning Area, Fallbrook Planning Area, Bonsall Planning Area, and the Valley Center Planning Area was used as the study area for the cumulative impacts analysis. The area represents a well-defined integrated ecological unit covering 195,715 acres and includes 163,000

acres of the central portion of the San Luis Rey River watershed and home ranges and habitats of sensitive species similar to those found on the Project Site. The Project Site is roughly in the middle of this cumulative impact study area.

The study area includes both upland (coastal sage scrub, grassland, and chaparral) and lowland (wetlands, oak woodland, and riparian areas) ecoregions. The upland habitat within the study area is within the Northern Foothills and Northern Valley Humid Temperate ecological region. This area from Fallbrook to Bonsall to Lilac to Pala is large enough to include the range of resident upland species and large enough to conduct an adequate cumulative assessment. The lowland habitat includes sensitive riparian species habitat along the San Luis Rey River watershed from Bonsall to Pala. The cumulative projects used in this analysis were obtained using county-wide parcel data joined with tabular data from a discretionary projects file from SanGIS that is updated quarterly. The projects found within the cumulative study area are shown on Figure 3.1-8 and listed in Table 3.1-7.

Special Status Species

Several proposed projects in the study area have the potential to directly or indirectly impact Designated Critical Habitat, Excluded Essential Habitat or habitat otherwise occupied by arroyo toad, California gnatcatcher and least Bell's vireo according to Guidelines 1 and 4. Impacts that would be caused by projects in the study area would require a permit through either the Section 10 or Section 7 processes under the Federal Endangered Species Act, as well as other state and local permits. Mitigation would be provided to compensate for impacts. Habitat for these species is also proposed for preservation throughout the cumulative impacts study area through several NCCP/HCP programs which, again, will ensure that impacts are avoided and/or mitigation provided such that long term species viability is ensured. Therefore, potential cumulative impacts to these species would be **less than significant**.

Other special status species identified as occurring or likely to occur on the Project Site, in and around off-site improvement areas, and in the region include Belding's orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, western spadefoot toad, northwestern San Diego pocket mouse, two-striped garter snake, northern harrier, southern California rufous-crowned sparrow, yellow warbler, yellow breasted chat, white-faced ibis, western bluebird, green heron, turkey vulture, white-tailed kite, red-shouldered hawk, barn owl, and Cooper's hawk (Guidelines 2 and 3). While these species are considered "Species of Special Concern" by the CDFG, most of these species are relatively common in appropriate habitat but are either found in one or a few specific habitats, or are locally distributed subspecies of a more widespread species. The Project Site provides suitable foraging, sheltering, or breeding habitat for these species. The majority of the upland habitat, such as coastal sage scrub, chaparral, and grassland, will be preserved on the Project Site to provide for the local and regional conservation needs of these species.

Under current policies, any potential impacts caused by projects in the regional study area would require mitigation under CEQA, generally through the preservation of other open space with appropriate habitat attributes for the sensitive species being affected. Should the draft North County MSCP be adopted, preservation of habitat for these species would be incorporated into regional planning and cumulative impacts to these

species would not be significant. Without the adoption of the draft North County MSCP impacts to these Species of Special Concern would be significant. Site design and mitigation of impacts to habitat generally at appropriate mitigation ratios is expected to ensure the long term survival of these species and reduce these impacts to **less than significant**.

Riparian Habitat and Sensitive Natural Communities

The Proposed Project will directly impact coastal sage scrub, oak woodlands, non-native grassland (including pasture), southern arroyo willow riparian forest, southern willow scrub, willow/mule fat scrub, freshwater marsh and chaparral. Within the cumulative study area, 85 projects are known to support one or more of these habitat types. Table 3.1-7 provides the impact analysis associated with the individual vegetative communities supported by each cumulative project. Impacts to sensitive vegetation communities would require mitigation on a project-by-project basis including providing open space to protect these vegetation communities; mitigation measures (discussed in detail below) proposed by the Proposed Project will be sufficient to mitigate the Proposed Project's minimal contribution to these impacts. Because the Proposed Project will not have a cumulatively considerable impact to riparian habitats and other sensitive natural communities, cumulative impacts are **less than significant**.

Jurisdictional Waters including Wetlands

The central portion of the San Luis Rey River watershed was analyzed for impacts to jurisdictional wetlands associated with all known projects. Jurisdictional wetlands have the potential to be removed by proposed projects in the study area. The majority of these potential impacts are likely to be avoided through compliance with the RPO. Remaining impacts will require mitigation through the appropriate agencies on a project-by-project basis. Permanent impacts to 3.12 acres of ACOE wetlands, 3.22 acres of CDFG vegetated riparian habitat, and 2.04 acres of RPO wetlands will be contributed by the Proposed Project. Mitigation measures (discussed in detail below) proposed by the Proposed Project will be sufficient to mitigate the Proposed Project's minimal contribution to regional impacts. Additionally, impacts to jurisdictional waters are regulated by the Federal CWA and the CDFG Code, both of which require permits and mitigation measures. Because the Proposed Project will not have a cumulatively considerable impact to jurisdictional wetlands, and mitigation will be required under local, state and federal regulations, cumulative impacts to jurisdictional wetlands and waters are **less than significant**.

Wildlife Movement

At a regional scale, wildlife movement and core use areas in southern California have been analyzed by the South Coast Wildlands (SCW), a non-profit group that works collaboratively with state and federal agencies to devise plans to maintain natural habitat connections between core habitat areas. SCW has identified one large movement corridor between protected areas that enters the northern portion of the cumulative study area. The majority of this corridor is on public land, and though it has some potential to be impacted without future preservation, there is currently limited development proposed along the southern edge of this corridor in the cumulative study area. The Proposed Project is not located within this large movement corridor. Therefore, cumulative impacts attributable to the proposed project are **less than significant**.

Local Policies, Ordinances, and Adopted Plans

The cumulative impact study area was analyzed with the Proposed Project to determine the significance of cumulative impacts under local policies, ordinances and adopted plans as well as the draft North County MSCP.

RPO

The Proposed Project along with other projects in the cumulative study area will contribute to cumulative impacts to RPO sensitive habitat lands. Cumulative impacts on sensitive habitat are discussed above under "Riparian Habitat and Sensitive Natural Communities," The cumulative impacts on wildlife corridors or RPO wetlands as discussed above under "Wildlife Movement" and "Jurisdictional Wetlands and Waterways."

NCCP

Preservation of large blocks of habitat is a key component of the state Southern California Coastal Sage Scrub NCCP. Coastal sage scrub covers a large area throughout the cumulative study area. Several projects within the cumulative impact study area have the potential to impact coastal sage scrub habitats. The preservation of 85.5 percent of the existing on-site coastal sage scrub in the proposed open space complies with this NCCP. The loss of 12.6 acres on-site and an additional 1.9 acres off-site will not exceed the County's five percent threshold.

MSCP

The County's MSCP serves as a Subregional and Subarea NCCP covering some of the unincorporated lands in the southern portion of the County. The draft North County MSCP Subarea Plan for North County. The impacts to coastal sage scrub have been minimized and mitigated by preserving the larger portion of the scrub as open space and connected to a larger block of coastal sage scrub habitat. The Proposed Project's open space design is consistent with the proposed hardline preserve in the draft North County MSCP. Since the Proposed Project has been designed to contribute 115.6 acres to the regional preserve system, for inclusion in the North County MSCP, cumulative impacts to this proposed plan would be **less than significant**.

3.1.5 Mitigation Measures Proposed to Minimize the Significant Effects

Development of the Project Site would result in impacts (both on- and off-site) to a variety of vegetation communities. The mitigation listed below for direct impacts would consist of the preservation of vegetation per the County mitigation ratios. The Conceptual Resource Management Plan and Conceptual Wetland Mitigation Plan provide detailed direction for how the implementation of the on-site open space and wetland mitigation will be accomplished.

Special Status Species

M-BR-1 To mitigate indirect construction-related impacts on the arroyo toad, the owner/permittee shall, using a qualified biologist, implement the following mitigation measure(s):

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area and identify locations for placement of protective fencing. The project biologist shall continue to monitor grading activities.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downs lope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. A storm drain system and detention basins shall be constructed to restrict excess water flow from proposed roads and structures associated with the Meadowood project. Filter devices shall be installed at the appropriate points to ensure that run-off is cleansed before reaching the basins. All water-catchment features shall be located above graded and natural slopes.

e. Nighttime lighting shall be shielded and directed away from riparian and upland habitat adjacent to the development.

M-BR-2 Permanent direct impacts to a total of 14.5 acres on- and off-site, of suitable habitat for California gnatcatcher shall be mitigated on-site at a ratio of 2:1 for a total of 29.0 acres. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to gnatcatcher habitat by 0.7 acre and mitigation by 1.4 acres for a total mitigation requirement of 27.6 acres. A total of 74.5 acres of habitat shall be preserved in the proposed on-site open space easement. The mitigation land will also cover impacts to designated Critical Habitat for the California gnatcatcher as detailed in the Conceptual Resource Management Plan (Appendix F-3).

Temporary direct impacts to a total of 0.3 acre on- and off-site shall be mitigated through revegetation of the coastal sage scrub with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Take authorization of the California gnatcatcher and removal of coastal sage scrub habitat shall be obtained through the Section 7 ~~consultation~~ Consultation with the USFWS or through the County Habitat Loss Permit Ordinance and compliance with the Coastal Sage Scrub NCCP.

M-BR-3a.1 Indirect impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from coastal sage scrub habitat adjacent to the development. This shall be implemented through a Lighting Plan.

e. Permanent fencing and signage shall be placed along the trails and/or between the development/open space interface in order to be compliant with County standards and as shown on the Landscape Concept Plans.

M-BR-3b.2 Direct impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. ~~Habitats will be mitigated on -site at a ratio of 2:1 for coastal sage scrub and disturbed coastal sage scrub for a total of 29.0 acres or in accordance with the County guidelines. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to gnatcatcher habitat by 0.7 acres and mitigation by 1.4 acres for a total mitigation requirement of 27.6 acres. Temporary impacts would be mitigated through revegetation of the coastal sage scrub with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. This would mitigate shall be incorporated into the Section 7 consultation.~~ Direct impacts to California gnatcatcher shall be mitigated in accordance with M-BR-2.

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting gnatcatchers, vegetation clearing and grubbing within 500 feet of coastal sage scrub shall no occur in potential nesting habitat during the breeding season from February 15 through August 31. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the gnatcatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active gnatcatcher nests in the area. The survey shall begin no more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting birds are found. During construction, no activity shall occur within 500 ft (152.4 m) of active gnatcatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended until the end of the breeding season. ~~Prior to any grading or native vegetation clearing associated with project construction, a "directed" survey shall be conducted to confirm the presence or absence of the California gnatcatcher on-site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat will take place within 500 feet of active nesting sites during the nesting/breeding season (February 15 through August 31). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may proceed within approved grading limits.~~

~~d. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 db(A) in the immediate vicinity of an active gnatcatcher nest.~~

M-BR-4 Impacts to least Bell's vireo habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site. This mitigation shall be incorporated into the Section 7 consultation. The habitat will be a southern willow scrub or willow riparian forest habitat which can be occupied by least Bell's vireo as detailed in the Conceptual Wetlands Mitigation Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to southwestern willow flycatcher habitat by 0.7 acres and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation.

Temporary direct impacts to 2.2 acres shall be mitigated through revegetation of the riparian habitat with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-5a~~.1~~ Indirect impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.

M-BR-5b~~.2~~ Direct impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to least Bell's ~~V~~vireo habitat shall be mitigated in accordance with M-BR-4. ~~at 3:1 for riparian vegetation types for a total of 11.1 acres. Temporary impacts shall be mitigated through revegetation of the riparian vegetation with the same species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. This mitigation will be incorporated into the Section 7 consultation. The off-site location, land manager, and conservation status of the mitigation land will be identified prior to Final Map recordation. The habitat will be a southern willow scrub or willow riparian forest habitat occupied by least Bell's vireo similar to that affected by the project and as detailed in the Wetland Mitigation Plan (Appendix F-4).~~

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting vireos, vegetation clearing and grubbing shall not occur within 500 feet of riparian habitat during the breeding season from March 15 to September 15. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the vireo breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active vireo nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting vireos are found. During construction, no activity shall occur within 500 ft (152.4 m) of active vireo nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.

~~Prior to any grading or native vegetation clearing associated with project construction, a "directed survey" shall be conducted to confirm the presence or absence of the least Bell's vireo on-site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat will take place within 500 feet of active nesting sites during the nesting/breeding season (March 15 through September 15). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may proceed within approved grading limits.~~

~~d. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 db(A) in the immediate vicinity of an active vireo nest~~

M-BR-6 Impacts to southwestern willow flycatcher habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site as detailed in the Conceptual Wetlands Mitigation Plan (Appendix F-4). If Palomar Community College mitigates for impacts associated with Horse Ranch

Creek, this would reduce impacts to southwestern willow flycatcher habitat by 0.7 acres and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation.

Temporary direct impacts to 2.2 acres of suitable habitat shall be mitigated through revegetation of the riparian habitat with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-7a~~.1~~ Indirect impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.

M-BR-7b~~.2~~ Direct impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. ~~Impacts to flycatcher habitat shall be mitigated at 3:1 for riparian vegetation types for a total of 11.1 acres. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to southwestern willow flycatcher habitat by 0.7 acres and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres. Temporary impacts shall be mitigated through revegetation of the riparian vegetation with the same species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. This mitigation shall be incorporated into the Section 7 consultation.~~Direct impacts to southwestern willow flycatcher habitat shall be mitigated in accordance with M-BR-6.

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the

development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting southern willow flycatchers, vegetation clearing and grubbing within 500 feet of riparian habitat shall not occur from May 1 to September 1. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the flycatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active flycatcher nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting flycatchers are found. During construction, no activity shall occur within 500 ft (152.4 m) of active flycatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended~~Prior to any grading or native vegetation clearing associated with project construction, a "directed" survey shall be conducted to confirm the presence or absence of the southwestern willow flycatcher on-site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat will take place within 500 feet of active nesting sites during the nesting/breeding season (May 1 through September 1). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may proceed within approved grading limits.~~

~~d. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 db(A) in the immediate vicinity of an active flycatcher nest.~~

M-BR-8 Permanent direct impacts to 62.2 acres of foraging habitat for birds of prey and other special status species shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3).

Temporary impacts would be mitigated through revegetation of foraging habitat with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Indirect impacts shall be mitigated by the following measures:

a. Shielding lighting away from the open space.

b. Monitoring noise levels during construction.

c. Use of range construction fencing, and silt fencing.

d. Permanent fencing and signage shall be placed along the trails and/or between the development open space interface in order to be compliant with County standards and as shown on the Landscape Concept Plans.

M-BR-9 Impacts to the western spadefoot shall be mitigated by the purchase of 11.1 acres of riparian forest and scrub habitat and the 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to western spadefoot habitat by 0.7 acres and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres.

Additionally, prior to project grading, a written relocation plan shall be prepared and approved by the County and CDFG. In accordance with the plan, western spadefoot toads shall be trapped and relocated. The timing and duration of the relocation program will be based on the activity period of the western spadefoot (generally associated with rainfall and temperature) and proposed construction schedule.

Trapping will occur along the existing pitfall traps located along the western and southern property boundaries and monitored prior to and during proposed construction activities. Any western spadefoot found in the traps will be collected, noted and relocated to predetermined receptor sites within the region. Trapping and relocation shall be conducted by a biologist familiar with the biological natural history of the western spadefoot and possesses a CDFG Memorandum of Understanding (MOU) for conducting these activities. At the end of the relocation effort, the biologist will prepare a summary report noting the number of western spadefoot relocated, the location of the area to which they were moved, and other pertinent facts. The report shall be submitted to the County and CDFG.

M-BR-10 Permanent and temporary impacts to the 14 special status wildlife species identified on-site shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3).

M-BR-11 Impacts to nesting birds shall be mitigated through the following measures:

a. Native and naturalized vegetation clearing shall not occur during the breeding season from -February 15 to September 15; However, Project construction activities may occur within this period ~~Vegetation clearing shall take place outside of the nesting season, roughly defined as mid-February to mid-September. Vegetation clearing activities could occur within potential nesting habitat during the breeding season~~ with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. If vegetation removal is to take place during the nesting season, a biologist shall be present during vegetation clearing operations to search for and flag active nests so that they can be avoided.

b. To avoid impacts to nesting raptors, any vegetation clearing or grubbing within 500 feet of trees suitable for raptor nesting shall not occur from February 1 to July 15. However, Project construction activities may occur within this period with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. A County-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active raptor nests in the area. The survey shall begin not more than ten days prior to the beginning of construction activities. During construction, no activity shall occur within 500 ft (152.4 m) of active raptor nests, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. ~~Prior to any grading or native vegetation clearing during the nesting/breeding season for raptors (roughly from mid-February through mid-July), a "directed" survey shall be conducted to locate active raptor nests, if any. If active raptor nests are present, no grading or removal of habitat will take place within 500 feet of any active nesting sites.~~ The project proponent may seek approval from the Director of DPLU if nesting activities cease prior to July 15.

c. Potential impacts to nesting California gnatcatcher, least Bell's vireo, and southern willow flycatcher will be implemented through agency permitting and with M-BR-3b(c), M-BR-5b(c), and M-BR-7b(c). ~~Prior to any grading or native vegetation clearing associated with project construction, a "directed" survey shall be conducted to confirm the presence or absence of the California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher on-site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat will take place within 500 feet of active nesting sites during the nesting/breeding season (February 15 through August 31 for gnatcatcher, March 15 through September 15 for vireo, and May 1 through September 1 for flycatcher). Should active nests be~~

~~abandoned prior to the end of the expected breeding season, grading and construction may proceed within approved grading limits.~~

M-BR-12 General indirect impacts associated with external community lighting shall be mitigated through all communal lighting associated with the project will be shielded and directed away from the urban/natural edge. The Proposed Project shall be designed to be in compliance with the San Diego County Light Pollution Code (Sections 59.101-59.115). A lighting plan shall be included in the grading plans which shows required lighting adjacent to the open space as being shielded, unidirectional, low pressure sodium illumination (or similar), and directed away from preserve areas using appropriate placement and shields.

Riparian Habitat and Sensitive Natural Communities

M-BR-13 Permanent impacts to coastal sage scrub and disturbed coast sage scrub shall be mitigated at the ratio of 2:1 totaling 29.0 acres within the 122.4-acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coastal sage scrub preserved on-site is 74.5 acres). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to disturbed coastal sage scrub by 0.7 acre and mitigation by 1.4 acres for a total mitigation requirement of 27.6 acres. Temporary impacts in the amount of 0.3 acres shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-14 Permanent impacts to southern mixed chaparral shall be mitigated at the ratio of 0.5:1 totaling 1.1 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of southern mixed chaparral preserved on-site is 17.5 acres).

M-BR-15 Permanent impacts to coast live oak woodland shall be mitigated at the ratio of 3:1 totaling 0.9 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coast live oak woodland preserved on-site is 1.7 acres).

M-BR-16 Permanent impacts to non-native grassland shall be mitigated at the ratio of 0.5:1 totaling 7.7 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of non-native grassland preserved on-site is 22.0 acres).

M-BR-17 Permanent impacts to pastureland shall be mitigated at the ratio of 0.5:1 totaling 15.1 acres of non-native grassland. A portion of the mitigation shall be on-site within the proposed open space easement. An additional 2.7 acres of mitigation land is required and shall be preserved off-site as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with

Horse Ranch Creek, this would reduce impacts to pastureland by 16.7 acres and mitigation by 8.3 acres for a total mitigation requirement of 6.8 acres.

M-BR-18 Impacts to willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh shall be mitigated through dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres or as defined through required state and federal wetland permits as detailed in the Conceptual Wetland Mitigation Plan (Appendix F-4). The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts.

If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh by 1 acre and mitigation by 3 acres for a total mitigation requirement of 9.3 acres Temporary impacts shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Jurisdictional Waters including Wetlands

M-BR-19 Permanent ~~I~~impacts to jurisdictional wetlands will follow the terms and conditions of permits and agreements with ACOE and CDFG.

Permanent impacts shall be mitigated at a ratio of 3:1 and shall consist of purchase and dedication of replacement habitat, creation of wetlands, and revegetation of disturbed riparian habitat. Mitigation measures for impacts to ACOE jurisdictional wetlands, CDFG vegetated riparian habitat, and RPO wetlands are listed as follows:

- ACOE jurisdiction: Permanent impacts to 0.83 acre on-site and 2.29 acres off-site, for a total of 3.12 acres of ACOE jurisdictional waters and wetlands shall be mitigated with 9.36 acres of ACOE jurisdictional waters and wetlands. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to ACOE jurisdiction by 0.11 acre and mitigation by 0.33 acres for a total mitigation requirement of 9.25 acres.

- CDFG jurisdiction: Permanent impacts to 0.93 acres on-site and 2.29 acres off-~~site,~~site for a total of 3.22 acres of CDFG jurisdictional waters and vegetated riparian habitat shall be mitigated with 9.66 acres of CDFG jurisdictional waters and vegetated riparian habitat. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to CDFG jurisdiction by 0.11 acre and mitigation by 0.33 acre for a total mitigation requirement of 9.25 acres.

- RPO jurisdiction: Permanent impacts to 2.29 acres of RPO wetlands off-site shall be mitigated with 6.87 acres of RPO wetlands. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to RPO jurisdiction by 0.11 acre and mitigation by 0.33 acre for a total mitigation requirement of 9.25 acres.

The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts.

~~Details are contained with the Wetlands Mitigation Plan.~~

M-BR-20 Temporary impacts to 2.04 acres of jurisdictional wetlands shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce temporary impacts by 0.4 acre.

3.1.6 Conclusion

Special Status Species

Impact BR-1: Construction activity could result in significant indirect impacts to the Arroyo Toad as a result of increased lighting, debris, potential erosion within the drainage area and any increase or change in run-off from the Project Site. M-BR-1 requires the use of a biologist to direct the construction of protective fencing and monitor grading activities. Implementation of this mitigation measure would reduce the significant effect because it would assure that toads remain outside of construction areas where they could be harmed by lighting, debris, eroding soils, or be displaced by a change in run-off. With implementation of this mitigation measure, Impact BR-1 would be less than significant.

Impact BR-2: Permanent impacts to 14.5 acres of coastal sage scrub habitat and temporary impacts to 0.3 acre coastal sage scrub habitat would result in a significant impact due to the reduction of viable habitat for the California gnatcatcher. M-BR-2 requires preservation of the habitat at the ratio of 2:1 for a total of 29.0 acres. The actual amount preserved within the dedicated open space is 74.5 acres. Implementation of this mitigation measure reduces the potentially significant effect because it provides compensation for the wildlife value of this vegetation community. The mitigation ratio for coastal age scrub was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since the Biological Report Guidelines were developed in the mid-1990s (adopted by the Board of Supervisors). This ratio is effective because these reviewing agencies have reached consensus that retention at these ratios will result in sustainable levels of this habitat. Preservation of the coastal sage scrub within an open space easement would mitigate for loss of habitat by providing areas where potentially

dislocated birds could relocate and thrive. With implementation of this mitigation measure, Impact BR-2 would be less than significant.

Impact BR-3: Construction activities and Proposed Project operation could result in significant indirect impacts to the California gnatcatcher as a result of increased noise, lighting, potential erosion and debris. M-BR-3 requires the retention of a project biologist to oversee the placement of fencing along development areas. Additionally, directed California gnatcatcher surveys are required to be conducted prior to grading. Implementation of this mitigation measure would reduce the potentially significant effect because if active nests are located within 500 feet of construction activities restrictions on grading and habitat removal will be implemented. This distance has been determined by the wildlife agencies to adequately attenuate disturbances allowing gnatcatchers to be protected from movement and noise from construction activities during the breeding season. Because the daily activities of this species would not be disrupted, breeding and nesting activities would continue within the proposed open-space thus helping to ensure the survival of the species. With implementation of this mitigation measure, Impact BR-3 would be less than significant.

Impact BR-4: Proposed Project implementation would result in permanent direct impacts to 3.7 acres of southern willow scrub and southern arroyo willow riparian forest habitats. This represents a significant impact due to a reduction of habitat supporting least Bell's vireo. M-BR-4 requires mitigation of the directly impacted habitat at the ratio of 3:1 for a total of 11.1 acres. Implementation of this mitigation measure reduces the potentially significant effect because it provides compensation for the wildlife value of this vegetation community. The mitigation ratio for southern willow scrub/ willow riparian forest was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s (adopted by the Board of Supervisors). The ratio is effective because consensus has been reached by the reviewing agencies that this level of preservation assures the continuity of the species within protected habitat. Additionally, 2.2 acres of the habitat would be temporarily impacted during construction of road improvements. These temporary impacts would be mitigated through restoration of the vegetation assuring the habitat is returned to a state which can support the continuity of a viable population of the species. With implementation of this mitigation measure, Impact BR-4 would be less than significant.

Impact BR-5: Construction activities associated with off-site improvements could result in significant indirect impacts to least Bell's vireo habitat due to increased noise, lighting, potential erosion and debris. M-BR-5 requires the retention of a project biologist to oversee the placement of fencing along development areas. Additionally, directed least Bell's vireo surveys are required to be conducted. Implementation of this mitigation measure would reduce the potentially significant effect because if active nests are located within 500 feet of construction activities restrictions on grading and habitat removal will be implemented allowing the breeding and/or nesting birds to be undisturbed. This distance has been determined by the wildlife agencies to adequately attenuate noise and disturbance to a level where nesting and breeding birds are not affected. Because the daily activities of this species would not be disrupted, breeding and nesting activities would continue within the proposed open-space thus helping to

ensure the survival of the species. With implementation of this mitigation measure, Impact BR-5 would be less than significant.

Impact BR-6: As stated in BR-4, above, road improvements could result in permanent direct impacts to 3.7 acres and temporary impacts to 2.2 acres of southern willow scrub and southern arroyo willow riparian forest habitats. Although unoccupied by southwestern willow flycatcher an impact could result from removal of this habitat which is known to support this species. M-BR-6 is the same as M-BR-4 requiring mitigation of the habitat at the ratio of 3:1 for a total of 11.1 acres. Implementation of this mitigation measure reduces the potentially significant effect because the mitigation ratio for southern arroyo willow riparian forest was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s (adopted by the Board of Supervisors). Consensus has been reached by the reviewing agencies that this ratio is effective because it provides compensation for the wildlife value of this naturalized vegetation type. Although presently unoccupied, the mitigation provides protection of habitat suitable for supporting southwestern willow flycatcher. With implementation of this mitigation measure, Impact BR-6 would be less than significant.

Impact BR-7: Construction activities could result in significant indirect impacts to southwestern willow flycatcher habitat due to increased noise, lighting, potential erosion and debris. M-BR-7 requires the retention of a project biologist to oversee the placement of fencing along development areas. Additionally, directed southwestern willow flycatcher surveys are required to be conducted. Implementation of this mitigation measure would reduce the potentially significant effect because if active nests are located within 500 feet of construction activities restrictions on grading and habitat removal will be implemented resulting in the attenuation of noise and disturbance to a level where nesting and breeding birds are not affected. With implementation of this mitigation measure, Impact BR-7 would be less than significant.

Impact BR-8: The permanent removal of 62.2 acres and temporary impact to 5.5 acres of foraging habitat for raptors would constitute a significant impact. M-BR-8 requires the on-site preservation of 122.4 acres of Designated Open Space. Implementation of this mitigation measure would reduce the potentially significant effect because preservation of these lands would adequately provide open lands that are suitable for rodents and other small prey which would assure the on-going viability of the local raptor population. With implementation of this mitigation measure, Impact BR-8 would be less than significant.

Impact BR-9: The removal of the orchard and agricultural areas of the Project Site could result in impacts to western spadefoot toad due to removal of suitable habitat. M-BR-9 requires the trapping and relocation of toads prior to and during project grading. Implementation of this mitigation measure would reduce the potentially significant effect because it provides a mechanism for the safe collection of any member of the species residing on-site and the relocation at predetermined locations as part of a Memorandum of Understanding with the CDFG allowing the on-going viability of the specie at another suitable location. With implementation of this mitigation measure, Impact BR-9 would be less than significant.

Impact BR-10: Permanent impacts to 14.5 acres of coastal sage scrub, 2.2 acres of southern mixed chaparral, 30.2 acres of pastureland and 15.3 acres of non-native grassland and temporary impacts to a total of 5.5 acres of the same habitats would result in a significant impact due to the removal of habitat supporting the 14 special status wildlife supported by the Project Site. M-BR-10 requires the on-site preservation of 122.4 acres of Designated Open Space. Implementation of this mitigation measure would reduce the potentially significant effect because preservation of these lands would provide an adequate area for the continued viability of the special status wildlife species. With implementation of this mitigation measure, Impact BR-10 would be less than significant.

Impact BR-11: Implementation of the Proposed Project could result in significant impacts to nesting birds if clearing, grading or, building demolition is undertaken during the breeding seasons. M-BR-11 requires all vegetation clearing activities to occur outside of nesting seasons unless specifically allowed by written concurrence from DPLU, USFWS and CDFG. Additionally, a "directed" survey is required prior to any clearing or grading during raptor nesting/breeding season in which case, if active nests are found, no removal is allowed to occur within 500 feet of the nest. Likewise, "directed" surveys of California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher are to occur prior to any clearing or grading activities during each appropriate breeding season. A Limited Building Zone is also required providing a buffer around any building needing brush management for fire protection. Implementation of this mitigation measure would reduce the potentially significant effect because it will assure that nesting birds are identified prior to potential damage to the nests. The measure also provides for the continued protection of the breeding birds and their habitat. With implementation of this mitigation measure, Impact BR-11 would be less than significant.

Impact BR-12: Increased external community lighting could result in a significant impact due to disruption caused by light shining directly into preserved habitat. M-BR-12 requires that all lighting be shielded and directed away from natural areas pursuant to the SD County Light Pollution Code and project lighting plan. Implementation of this mitigation measure would reduce the potentially significant effect because it will assure that the preserve areas are protected from light and glare. With implementation of this mitigation measure, Impact BR-12 would be less than significant.

Riparian Habitat and Sensitive Natural Communities

Impacts BR-13, BR-14, BR-15, BR-16 and BR-17: The disturbance of sensitive native and naturalized habitats on and off-site could affect wildlife that is supported within each. Specifically, the following would result in significant impacts: the permanent removal of 14.5 acres of coastal sage scrub (BR-13); the permanent removal of 2.2 acres of on-site southern mixed chaparral (BR-14); the permanent removal of 0.3 acres of coast live oak woodland (BR-15); the permanent removal of 15.3 acres of non-native grasslands (BR-16); and the permanent removal of 30.2 acres of pastureland (BR-17). M-BR-13 through M-BR-17 require the on-site preservation of 171.7 acres, comprised of a 122.4-acre Designated Open Space area and a 49.3-acre Agricultural Open Space area. An additional 2.7 acres will be preserved off-site to meet mitigation ratio totals. Implementation of these mitigation measures would reduce the potentially significant effects because preservation of these lands would adequately provide open lands suitable for the continued viability of wildlife supported within these habitats. With

implementation of these mitigation measures, Impact BR-13 through BR-17 would be less than significant.

Impact BR-18: Implementation of the Proposed Project would result in the removal of. 4.1 acres of wetland vegetation comprised of 0.1 acre of isolated willow/mule fat scrub on-site and 0.9 acre of southern willow scrub, 2.8 acres of southern arroyo willow riparian forest and 0.3 acre of freshwater marsh off-site. The loss of this habitat represents a significant impact. M-BR-18 requires the dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres. Implementation of this mitigation measure reduces the potentially significant effect because it provides compensation for the wildlife value of this rare and sensitive vegetation type. The mitigation ratio for wetland protection was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s (adopted by the Board of Supervisors). The ratio is effective because the reviewing agencies have reached consensus that retention at this ratio will result in sustainable levels of this habitat. With implementation of this mitigation measure, Impact BR-18 would be less than significant.

Jurisdictional Waters including Wetlands

BR-19: Implementation of the Proposed Project will result in permanent impacts to the following jurisdictional wetlands and waterways: 3.12 acres of ACOE jurisdiction; 3.22 acres of CDFG jurisdiction; and 2.29 acres of RPO wetlands. These impacts are considered significant due to the loss of a rare and sensitive habitat. M-BR-19 requires the dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 9.36 acres of ACOE jurisdictional waters and wetlands, 9.66 acres of CDFG jurisdictional waters and vegetated riparian habitat and 6.87 acres of County wetlands all to be mitigated within the 11.1 acre off-site mitigation requirement. Implementation of this mitigation measure reduces the potentially significant effect because the mitigation ratio for wetland protection was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Consensus has been reached by the reviewing agencies that retention at this ratio will result in sustainable levels of this habitat. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s ~~(adopted by the Board of Supervisors)~~. With implementation of this mitigation measure, Impact BR-19 would be less than significant.

BR-20: Off-site improvements associated with the Proposed Project will result in temporary impacts to 2.04 acres of jurisdictional wetlands. These improvement areas represent significant impacts due to the disturbance of a rare and sensitive habitat. M-BR-20 requires restoration of all disturbed areas to their original conditions allowing re-growth of vegetation and the return of wildlife assuring the continuity of viable habitat. With implementation of this mitigation measure, Impact BR-20 would be reduced to below a level of significance.

Wildlife Movement

Development of the Project Site and associated off-site improvement areas would not impact regional wildlife movement. Construction of Pala Mesa Drive will not adversely affect access to local foraging and breeding habitat as it will be located south of the main Horse Ranch Creek drainage area. In addition, utilizing the existing Pankey Road Bridge will allow for continued access for small wildlife to riparian vegetation to the southwest. Thus, interference with wildlife movement has been avoided through project design ensuring that impacts would be less than significant.

Local Policies, Ordinances, and Adopted Plans

There would be no impacts to biological resources protected by local ordinances that are not already addressed by mitigation measures for vegetation communities, special status species, or jurisdictional wetlands. Through the mitigation measures listed above (**M-BR-1** through **M-BR-20**) and design considerations the project will comply with all applicable local ordinances, policies, and plans and impacts would be less than significant.

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Map Source: NRC, May 2009

FIGURE 3.1-1
Biological Resources

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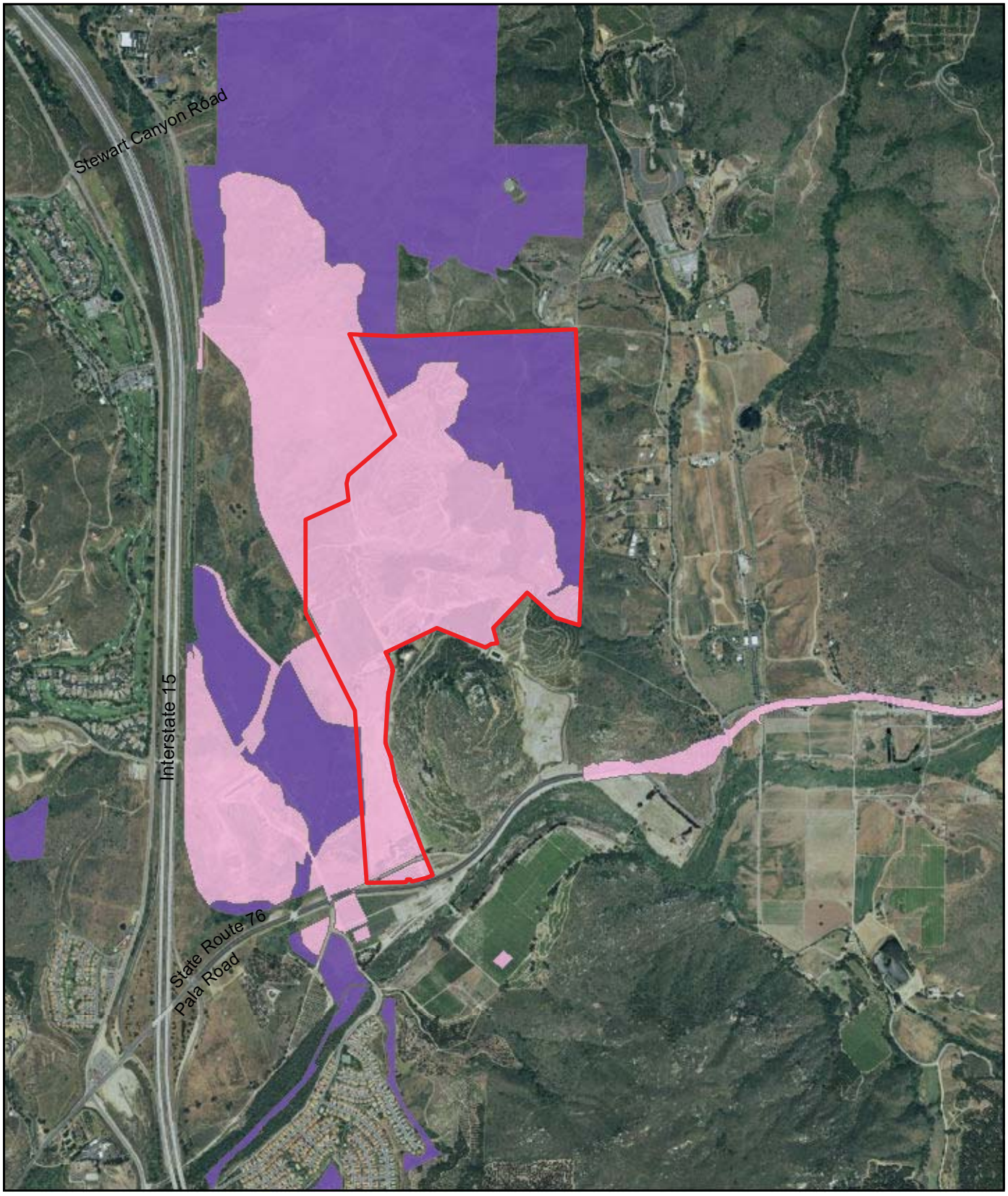
Image source: Copyright 2010 AerialsExpress, All Rights Reserved (flown Feb 2010)



0 Feet 2,000

Project Boundary

North County MSCP

Pre-negotiated (Hardlined) Take Authorized Areas

Preserve Areas

RECON

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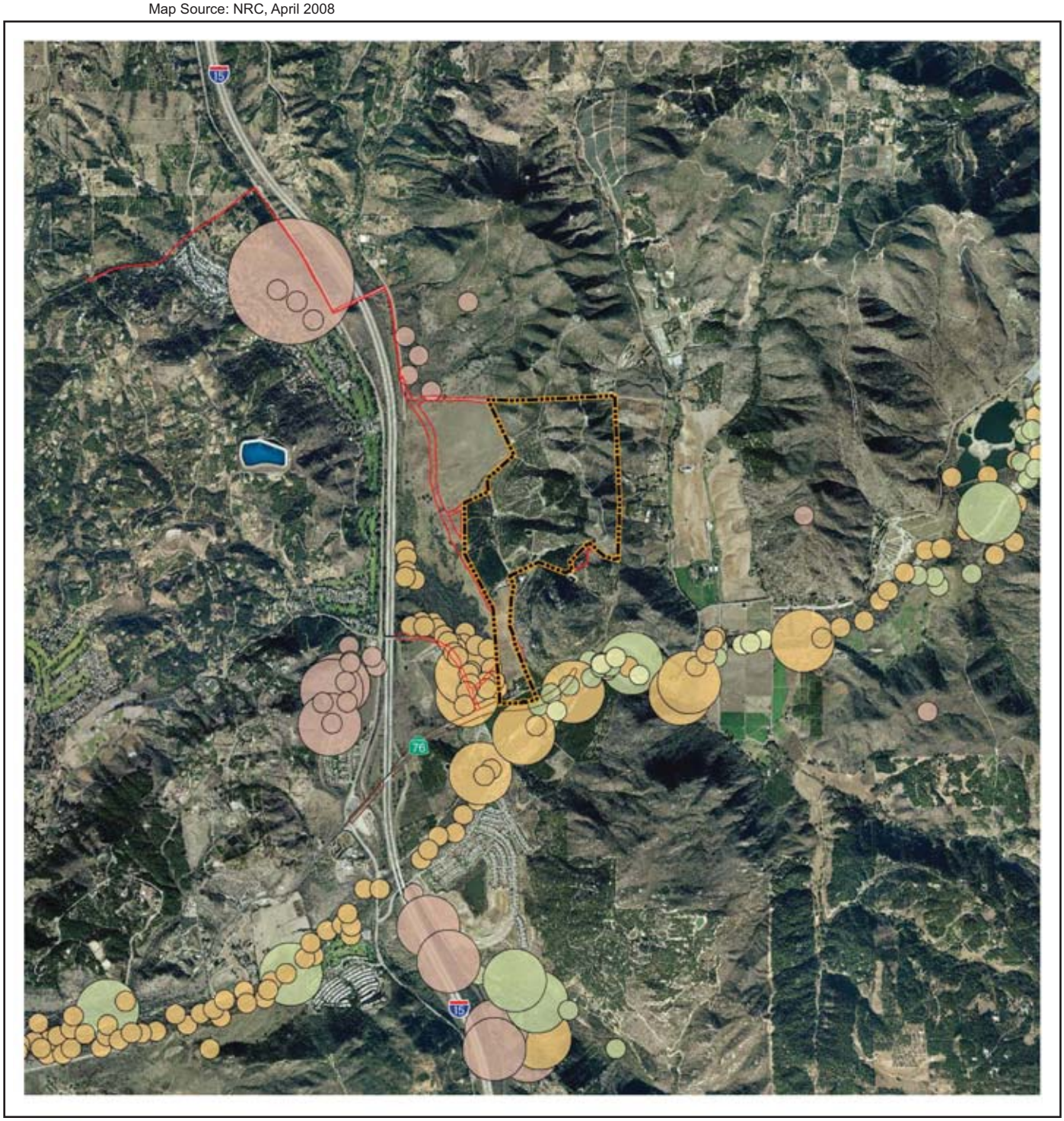
FIGURE 3.1-2

Draft North County MSCP

Map Source: NRC, April 2008



Site Boundary
Off-site Improvements
Proposed SR76 Realignment
Arroyo Toad. *Bufo californicus*
California gnatcatcher. *Polioptila californica*
Least Bell's vireo. *Vireo bellii pusillus*
Southwestern willow flycatcher. *Empidonax traillii extimus*

0 Feet 3300

FIGURE 3.1-3
Federally Listed Species in Project Vicinity

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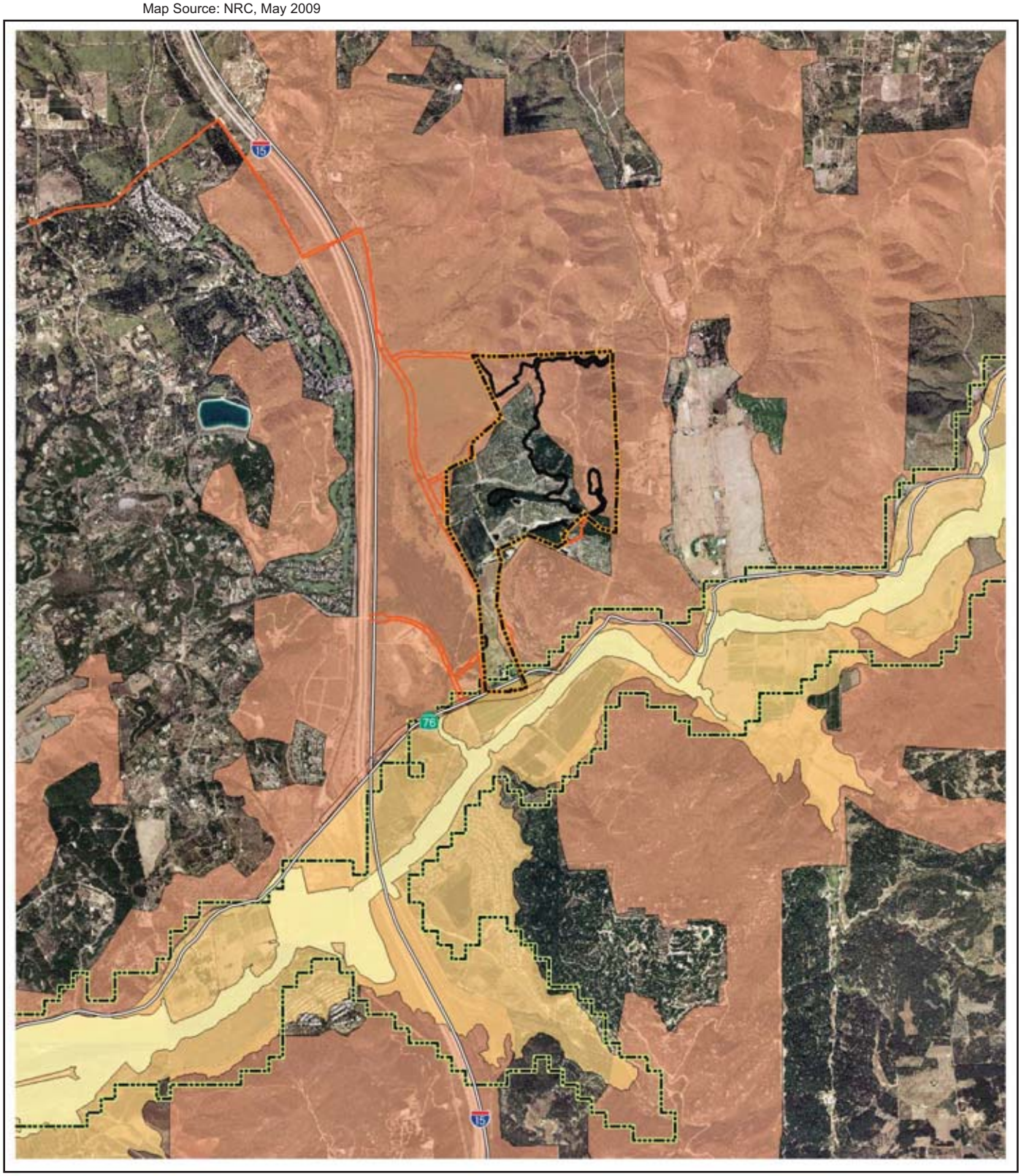
Map Source: NRC, May 2009



Site Boundary
On Site Impact Area
Off-site Improvements
SR76 Realignment
Arroyo Toad. *Bufo californicus* (E, CH designated April 2005) Excluded Essential Habitat
Southwestern willow flycatcher. *Empidonax traillii extimus* (E, CH designated Oct 2005)
Least Bell's vireo. *Vireo bellii pusillus* (E, CH designated Feb 1994)
California gnatcatcher. *Polioptila californica* (T, CH designated 2007)

0 Feet 3100

FIGURE 3.1-4
Critical Habitat in Project Vicinity

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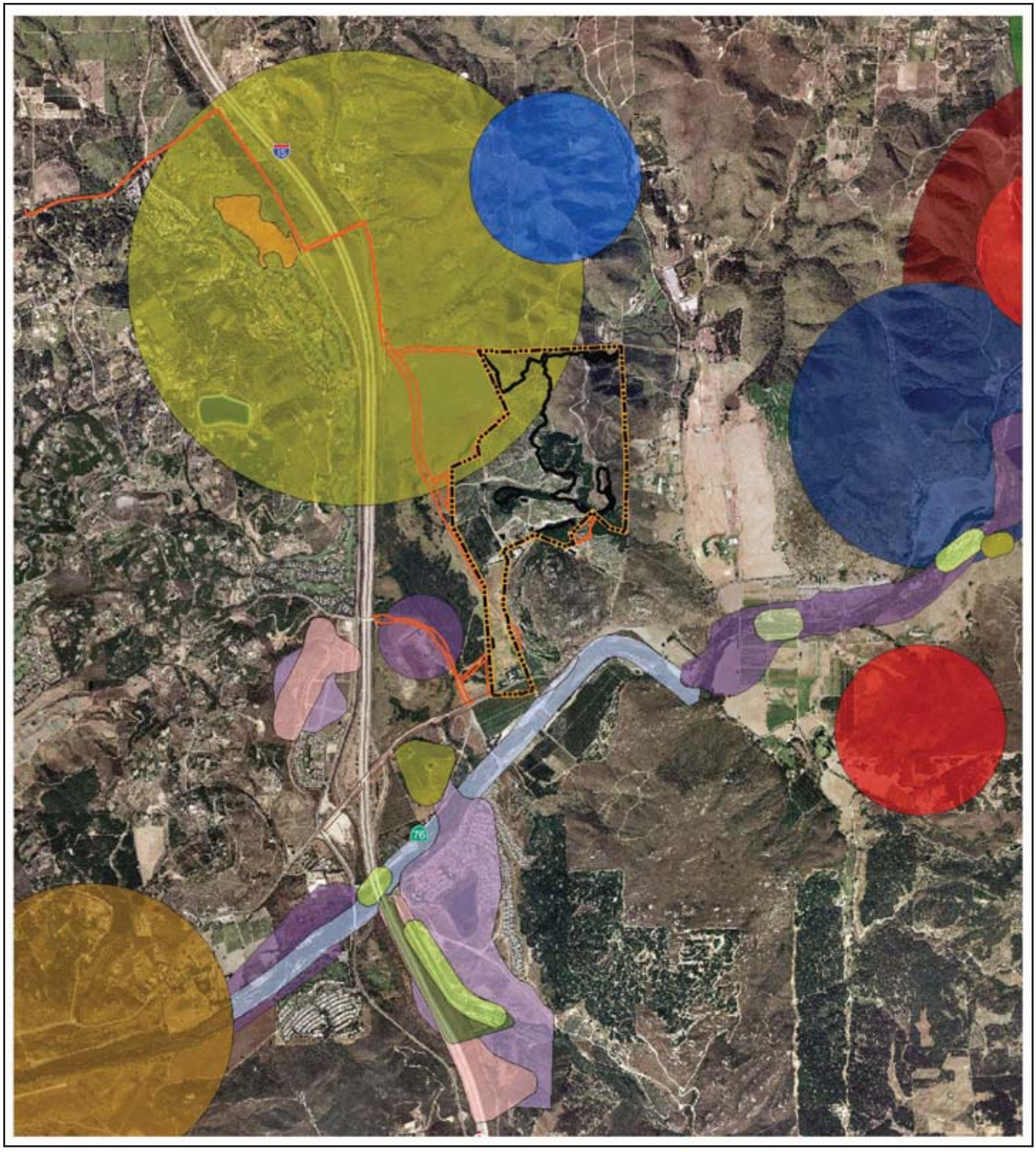
Map Source: NRC, September 2008



0 Feet 3000

- Meadowood boundary
- On Site Impact Area
- Off-site Improvements
- SR76 Realignment
- Southern Cottonwood Willow Riparian Forest
- chaparral nolina
- Parry's tetracoccus
- Robinson's pepper-grass
- arroyo toad
- Coronado skink
- northern red-diamond rattlesnake
- orange-throated whiptail
- rosy boa
- San Diego desert woodrat
- Cooper's hawk
- coastal California gnatcatcher
- coastal cactus wren
- golden eagle
- least Bell's vireo
- least bittern
- southern California rufous-crowned sparrow
- southwestern willow flycatcher
- white-faced ibis
- yellow warbler
- yellow-breasted chat

FIGURE 3.1-5

Special Status Species in Project Vicinity

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Map Source: NRC, May 2009

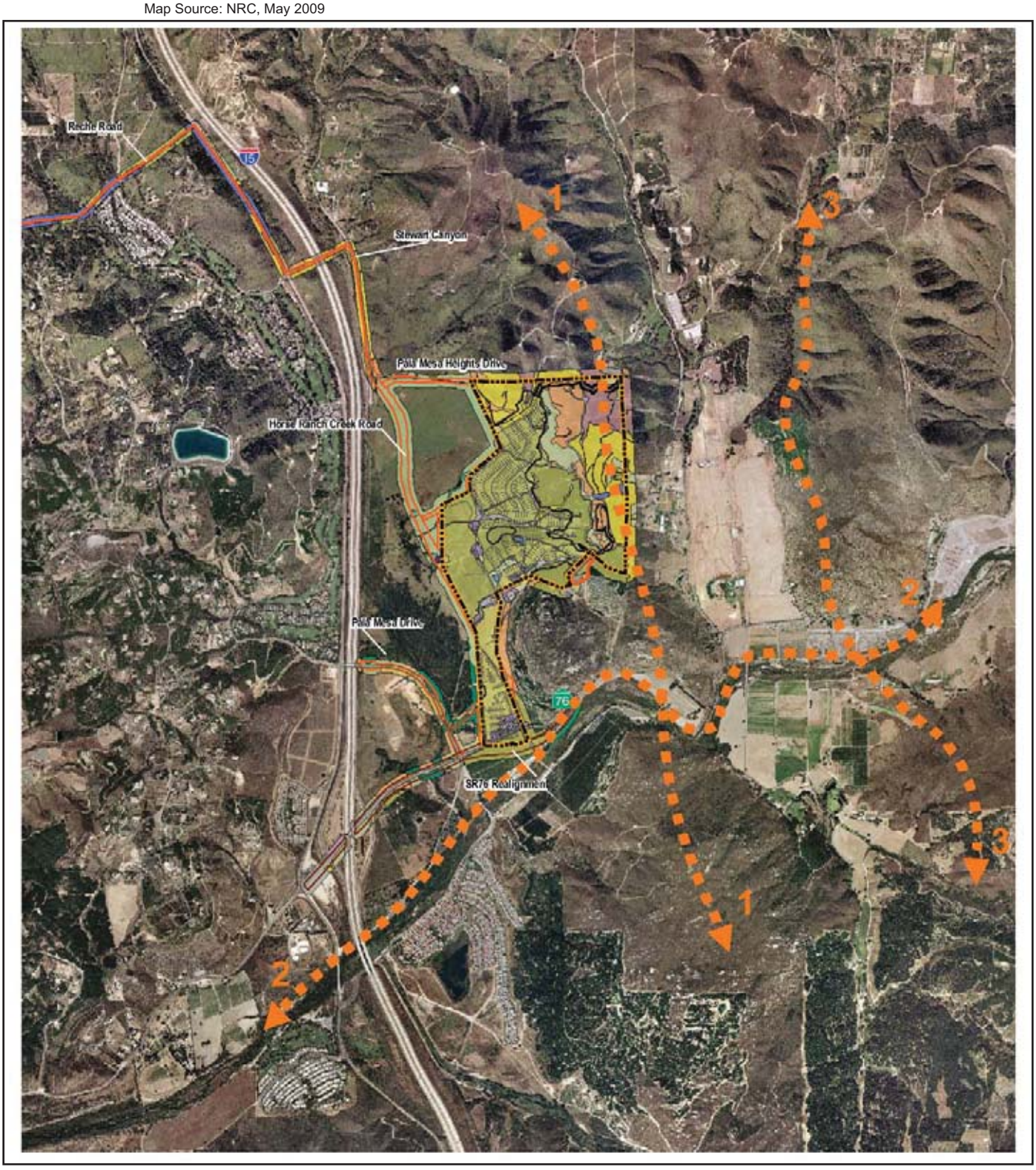

FIGURE 3.1-6
Wildlife Corridors

RECON

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Map Source: NRC, June 2009

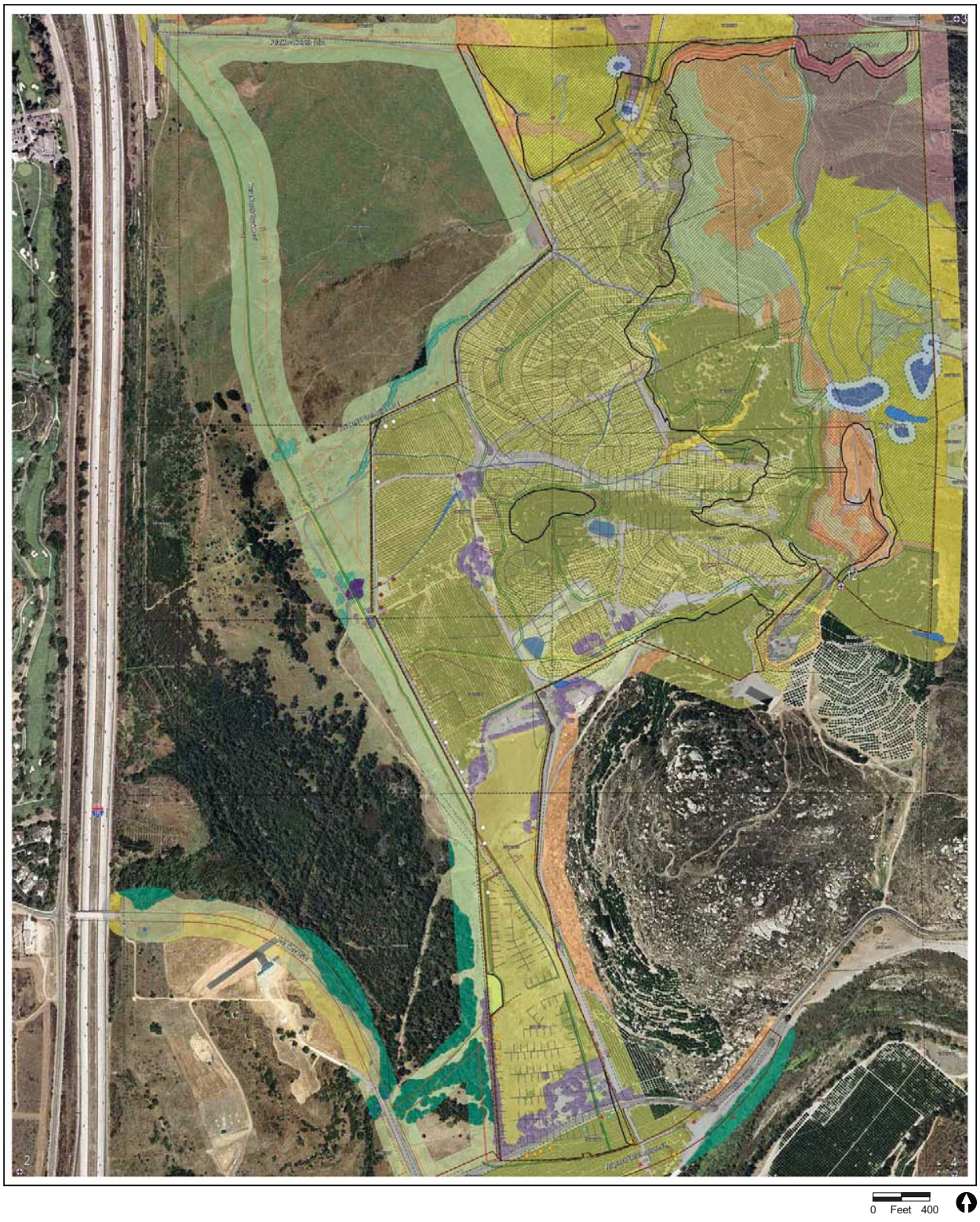

FIGURE 3.1-7a
Impacts to Biological Resources

RECON

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Map Source: NRC, June 2009

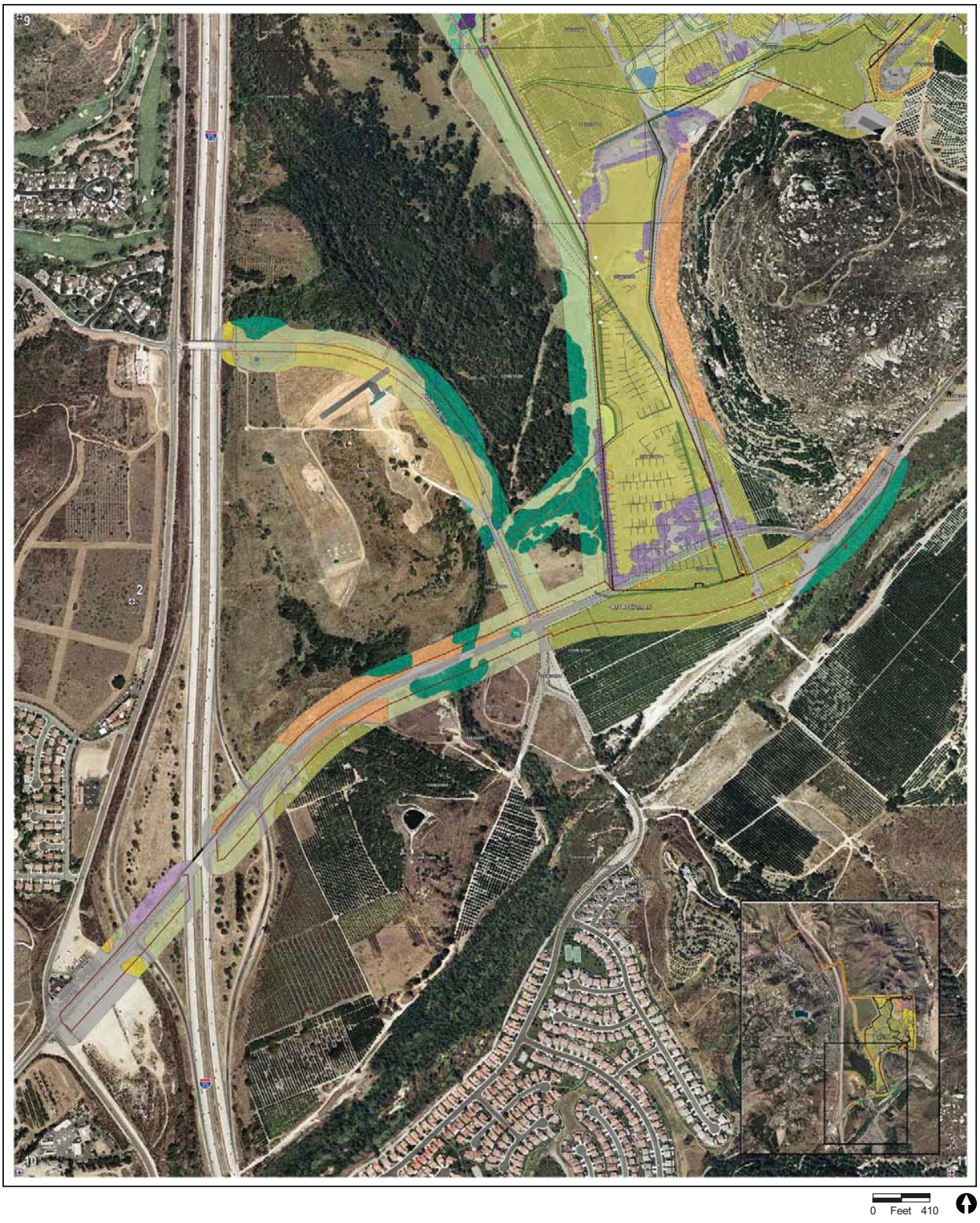

FIGURE 3.1-7b
Impacts to Biological Resources

RECON

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Map Source: NRC, June 2009

Boundary
Off-site Improvements
Parcel Boundaries
50-foot Oak Root Zone

(AG) Agriculture - 18000/18100
(NNG) Non-native Grassland - 42200
(CSS) Coastal Sage Scrub - 32500
(DCSS) Disturbed Coastal Sage Scrub - 32500
(CHP) Southern Mixed Chaparral - 37120

(NNT) Non-native Trees - 11000
(PAS) Pasture - 18310
(OW) Coast Live Oak Woodland - 71160
(WMS) Willow and Mulefat Scrub - 63300
(SAWRF) Southern Arroyo Willow Riparian Forest - 61320

(SWS) Southern Willow Scrub - 63320
(FWM) Freshwater Marsh - 52400
(OWP) Open Water Ponds - 13100
(DIST) Disturbed - 11000/12000/13000

California Gnatcatcher (NRC 2007)

Registration Points
1 486039 3691072
6 482741 3692785
7 485467 3692792
8 482736 3691006
13 486800 3689841
14 483056 3694744
15 483738 3694744
16 483087 3693993

Ubiquitous Sensitive Species (On Site)

Coastal Western Whiptail
San Diego Ringneck Snake
Coronado Skink
Turkey Vulture
Northern Harrier
Red-shouldered Hawk
Barn Owl
Southern Cal. Rufous-crowned Sparrow
Western Bluebird

Ubiquitous Sensitive Species (Off Site)

White-faced Ibis
Green Heron
Turkey Vulture
White-tailed Kite
Red-shouldered Hawk
Cooper's Hawk
Barn Owl
Western Bluebird
Yellow Warbler
Yellow Breasted Chat

0 Feet 400

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FIGURE 3.1-7c
Impacts to Biological Resources

Map Source: NRC, July 2009

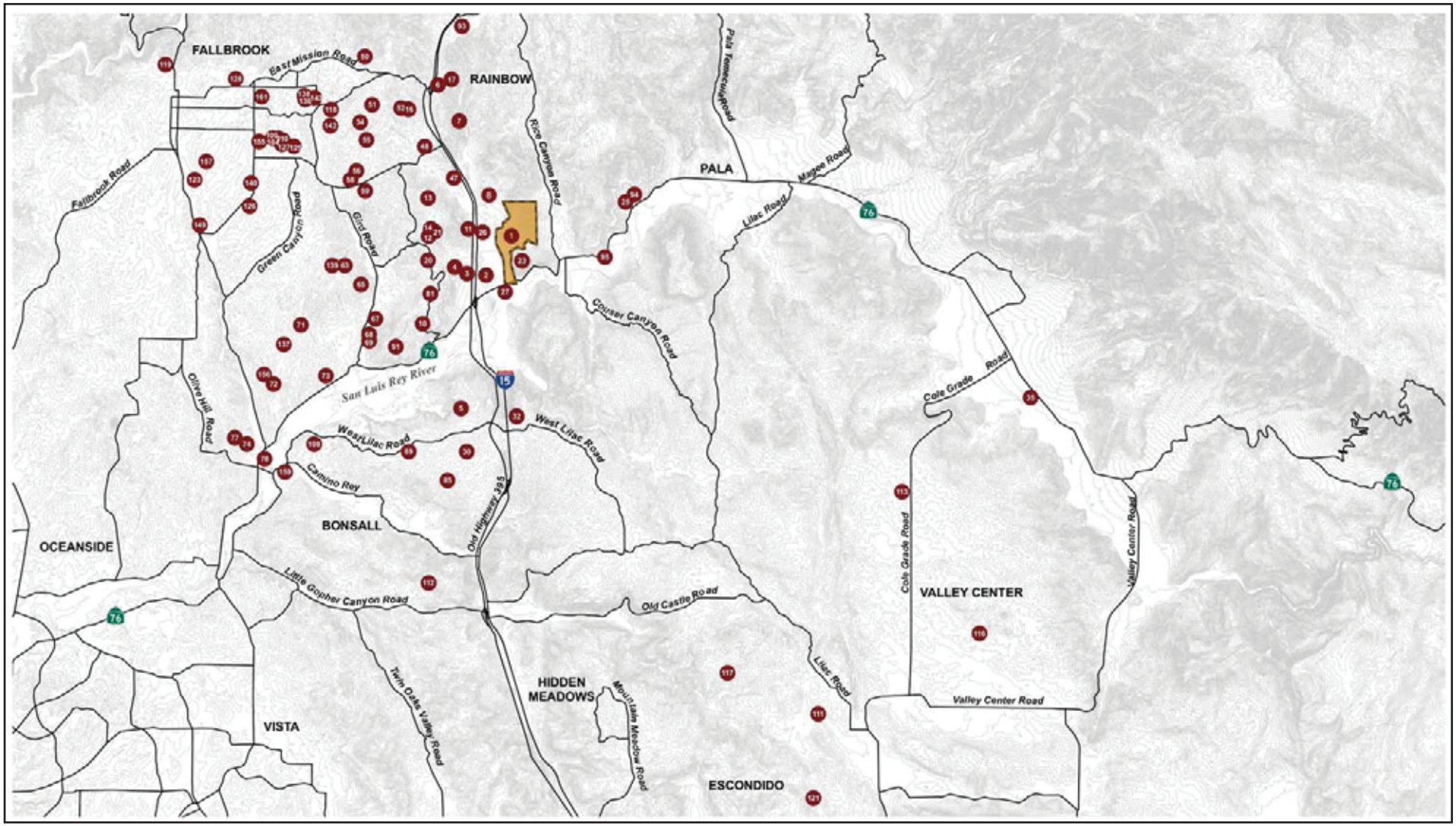

FIGURE 3.1-8
Cumulative Projects

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TABLE 3.1-1
ON-SITE VEGETATION COMMUNITIES

Vegetation Community	Acreage
Agriculture (18100)	209.9
Non-native grassland (42200)	31.9
Coastal sage scrub (32500)	56.5
Disturbed coastal sage scrub (32500)	30.6
Southern mixed chaparral (37120)	19.6
Non-native trees (11000)	8.3
Pastureland (18310)	1.5
Coast live oak woodland (71160)	1.7
Mixed willow/Mule fat scrub (63300)	≤0.1
Open water ponds (13100)	0.7
Developed/disturbed areas (12000)	28.7
TOTAL	389.5

TABLE 3.1-2
ON-SITE VEGETATION COMMUNITY IMPACTS

Vegetation Community	Existing On-Site	On-Site Permanent Impacts	Preserved On-Site	Impact Neutral	On-Site Temporary Impacts
Agriculture	209.9	162.5	47.4	0.6	0.3
Non-native grassland	31.9	9.9	22.0	2.0	<0.1
Coastal sage scrub/Disturbed coastal sage scrub	87.1	12.6	74.5	2.8	0.2
Southern mixed chaparral	19.6	2.2	17.5	0.0	0.2
Non-native trees	8.3	8.1	0.2	0.0	0.0
Pastureland	1.5	1.5	0.0	0.0	0.0
Coast live oak woodland	1.7	<0.1	1.7	0.0	0.0
Mixed willow/mule fat scrub	≤0.1	≤0.1	0.0	0.0	0.0
Open water	0.7	0.7	0.0	0.0	0.0
Disturbed/developed areas	28.7	20.3	8.4	0.5	<0.1
TOTAL ACRES	389.5	217.8	171.7	5.9	0.7

TABLE 3.1-3
PERMANENT OFF-SITE VEGETATION COMMUNITY IMPACTS

Off-site Impact	CSS	DCSS	CHP	OW	SWS	SAWRF	FWM	NNG	NNT	*S(1)*	PAS	AG	DIST	*S(2)*	Total *S{1+2}*	Listed Species*
Pala Mesa Drive (Horse Ranch Creek Road to I-15)†	0.01	0.00	0.00	0.00	0.00	2.18	0.00	3.48	0.14	5.81	0.84	1.92	0.85	3.61	**9.42**	CAGN, LBV
Pankey Road (N. Passerelle boundary to Stewart Canyon Rd.)	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.76	0.00	0.00	3.37	3.37	**4.13**	CAGN
Horse Ranch Creek Road (N. Passerelle boundary to W. Meadowood site boundary)	0.00	0.00	0.00	0.00	0.68	0.00	0.32	0.00	0.15	1.15	16.69	0.01	0.06	16.76	**17.91**	CAGN, LBV
Horse Ranch Creek Road East of PA1	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.72	0.00	0.21	0.99	1.20	**1.92**	--
Residential Connection Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.93	**0.93**	CAGN
Water Tank Access Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.07	1.52	**1.52**	--
Grading Along Site Edge	0.00	0.01	0.00	0.00	0.27	0.59	0.00	0.36	0.63	1.86	4.46	0.00	0.26	4.72	**6.58**	CAGN, LBV
2nd CWA Pipeline Preferred	0.31	0.01	0.00	0.20	0.00	0.00	0.00	0.64	0.05	1.21	2.82	0.21	13.43	16.46	**17.67**	CAGN
Pala Mesa Heights Drive	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.91	0.00	1.03	2.98	0.00	0.51	3.49	**4.52**	CAGN
TOTAL	1.05	0.84	0.00	0.20	0.95	2.77	0.32	5.39	1.02	*12.54*	28.72	3.80	19.54	52.06	**64.60**	--

*This table lists the off-site impacts associated with the Meadowood Project. Sensitive species listed in the table represent potential impacts to these species.

†These actions may be completed under separate permit applications; however, will be included under this permit in the event that they are not completed prior to construction of the Meadowood project.

Legend

S(1) – total acreage of CSS,DSCSS, CHP,OW, SWS, FWM, NNG, NNT

S(2) – total acreage of PAS, AG, DIST

CSS – Coastal Sage Scrub, DCSS – Disturbed Coastal Sage Scrub, CHP – Southern Mixed Chaparral, OW – Oak Woodland, SWS - Southern Willow Scrub, SAWRF – Southern Arroyo Willow Riparian Forest FWM - Freshwater Marsh, NNG – Non-native Grass, NNT – Non-native Trees, PAS – Pasture, AG – Agriculture, DIST – Disturbed/Developed/Graded

CAGN – California Gnatcatcher, LBV – Least Bell's Vireo

TABLE 3.1-4
TEMPORARY OFF-SITE VEGETATION COMMUNITY IMPACTS

Off-site Impact	CSS	DCSS	CHP	OW	SWS	SAWRF	FWM	NNG	NNT	*S(1)*	PAS	AG	DIST	*S(2)*	Total *S{1+2}*	Listed Species*
Pala Mesa Drive (Horse Ranch Creek Road to I-15)†	0.11	0.00	0.00	0.00	0.00	2.00	0.00	1.94	0.07	4.12	0.77	1.26	0.19	2.22	**6.34**	CAGN, LBV
Pankey Road (N. Passerelle boundary to Stewart Canyon Rd.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	
Horse Ranch Creek Road (N. Passerelle boundary to W. Meadowood site boundary)	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.62	0.00	0.03	0.65	**0.67**	CAGN, LBV
Horse Ranch Creek Road East of PA1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	--
Residential Connection Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.14	**0.14**	--
Water Tank Access Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	--
Grading Along Site Edge	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.06	0.13	0.32	1.16	0.11	0.06	1.33	**1.65**	LBV
2nd CWA Pipeline Preferred	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	--
Pala Mesa Heights Drive	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.16	0.15	0.00	0.03	0.15	**0.31**	CAGN
TOTAL	0.11	0.03	0.00	0.00	0.02	2.13	0.00	2.13	0.20	4.62	2.84	1.37	0.28	4.49	**9.11**	--

*This table lists the off-site impacts associated with the Meadowood Project. Sensitive species listed in the table represent potential impacts to these species.

†These actions may be completed under separate permit applications; however, will be included under this permit in the event that they are not completed prior to construction of the Meadowood project.

Legend

S(1) – total acreage of CSS,DSCSS, CHP,OW, SWS, FWM, NNG, NNT

S(2) – total acreage of PAS, AG, DIST

CSS – Coastal Sage Scrub, DCSS – Disturbed Coastal Sage Scrub, CHP – Southern Mixed Chaparral, OW – Oak Woodland, SWS - Southern Willow Scrub, SAWRF – Southern Arroyo Willow Riparian Forest FWM - Freshwater Marsh, NNG – Non-native Grass, NNT – Non-native Trees, PAS – Pasture, AG – Agriculture, DIST – Disturbed/Developed/Graded

CAGN – California Gnatcatcher, LBV – Least Bell's Vireo

TABLE 3.1-5
PROJECT IMPACTS TO VEGETATION COMMUNITIES

Vegetation Community	Existing (On-Site)	Permanent Impacts (On-site)	Permanent Impacts (Off-site)	Mitigation Ratio	Mitigation Required	Preserved (On-Site)	Impact Neutral	Off-site Mitigation
Agriculture	209.9	160.6	3.8	0:1	0.0	49.3	0.6	0.0
Non-native grassland	31.9	9.9	5.4	0.5:1	7.7	22.0	2.0	0.0
Coastal sage scrub (CSS)/Disturbed CSS	87.1	12.6	1.9	2:1	29.0	74.5	2.8	0.0
Southern mixed chaparral	19.6	2.2	0.0	0.5:1	1.1	17.5	0.0	0.0
Non-native trees	8.3	8.1	1.0	0:1	0.0	0.2	0.0	0.0
Pastureland	1.5	1.5	28.7	0.5:1	15.1	0.0	0.0	2.7[1]
Coast live oak woodland	1.7	less than 0.1	0.2	3:1	0.9	1.7	0.0	0.0
Mixed willow/mule fat scrub	~~less than~~ 0.1	~~less than~~ 0.1	0.0	3:1	0.3	0.0	0.0	0.3
Southern willow scrub	0.0	0.0	~~1.0~~.95	3:1	2.~~7~~85	0.0	0.0	2.~~7~~85
Southern arroyo willow riparian forest	0.0	0.0	~~2.8~~2.77	3:1	8.4~~3~~1	0.0	0.0	8.4~~3~~1
Freshwater marsh	0.0	0.0	0.3~~2~~	3:1	0.9~~6~~	0.0	0.0	0.9~~6~~
Open water	0.7	0.7	0	0:1	0.0	0.0	0.0	0.0
Disturbed/developed areas	28.7	22.2	19.5	0:1	0.0	6.5	0.5	0.0
TOTAL ACRES*	389.5	217.8	64.6		65.8	171.7	5.9	15.0

* Totals may not add up correctly due to rounding.
[1] Only 4.7 acres of off-site mitigation is needed for pasture due to the amount of non-native grassland preserved on-site.
[2] Impact Neutral is included in the Preserved On-Site total.

TABLE 3.1-6
SUMMARY OF IMPACTS TO JURISDICTIONAL WATERS

Location/ Jurisdiction	Permanent Impacts to Wetlands or Vegetated Riparian	Permanent Impacts to Non-wetland Waters	Permanent Impacts to Isolated Waters	Temporary Impacts to Wetlands or Vegetated Riparian	Temporary Impacts to Non-wetland Waters	Total Impacts to Jurisdictional Waters
On-site						
ACOE	0.14	0.69		----	----	0.83
RWQCB	0.14	0.69	0.06			0.89
CDFG	0.34	0.59	----	----	----	0.93
County	---	----	----	----	----	---
Off-site						
ACOE	2.29	>0.01	----	2.04	>0.01	4.33
CDFG	2.29	>0.01	----	2.04	>0.01	4.33
County	2.29	----	----	2.04	----	4.33

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
1	Meadowood	2009	X	X	X	X	X	X	X	X	
2	Campus Park West	2004	X			X		X	X		
3	Pala Mesa Highlands	2007	X		X		X	X			
4	Tedder TM	1992			X		X				
5	Hukari Subdivision	2007		X	X	X			X		
6	Fulla Fallbrook Ranch	2007	X	X	X				X		
7	Los Willows Inn and Spa	2004			X						
8	Campus Park	In Process	X			X	X	X	X		
10	Bridge Pac West 1 TPM	2006			X	X	X				X
11	Pala Mesa Resort	2007	X								
12	Lung TPM	1999									
13	Chipman TPM	2000			X						
14	Bierman TPM	2000				X					

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
16	Treister TPM	2003	X								
17	Mission Ridge Road TPM	2008	X	X	X			X			
20	Fernandez TPM	2005						X	X		
21	Rabuchin	2005					X				
23	Rosemary Mtn Aggregate Quarry	1997	X	X	X	X					
25	Prominence at Pala	2006	X	X							
26	Palomar College	2007	X			X	X	X			
27	Caltrans SR 76 Realignment	2007	X		X	X	X				
28	San Luis Rey Municipal Water District	2006									X
30	West Lilac Farms	2006			X	X		X			
32	Marquart Ranch	2007	X						X		
34	Ridge Creek Drive	2007	X		X					X	
35	Club Estates	2006						X			
47	De Jong/Pala Minor	1999						X			

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
	Subdivision										
48	Crossroads Investors Minor Subdivision	2008				X					
49	Chaffin TPM	2005	X			X	X				
50	John Collins TPM	2001	X								
51	Brannon Trust TPM	2007	X								
52	Dien N Do TPM	2005	X	X	X			X			
55	Atteberry TPM	1999			X						
56	Johnson TPM	2006					X		X		
58	American Lotus Buddhist Associations TPM	2007	X				X				
59	Reche Road TM	2008									X
63	Cameron Subdivision	1999	X								
65	Aspel TPM	2002	X		X	X					
67	Yew Tree Spring Water Corporation	2003			X	X		X			

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
68	Haugh, Granger TPM	2007	X			X					
69	Brown, Lee, and Karen TPM	2007	X				X	X			
71	Surf Properties TPM	2007			X		X				
72	Brook Hills TM	1993									X
73	Latter Day Saints Via Monserate	2002					X				
74	Leeds and Strauss	2001	X					X			
77	Crook TPM	2001									X
78	Tabata TM	2004							X		X
81	Sumac TPM	2007									X
85	Woodhead TPM	2001							X		X
89	Sanders TPM	2004							X		X
91	Monserate TM	2006									X
93	Madrigal TPM	2006									X
94	Orange Grove Power Plant	2007	X								X
95	Gregory Landfill	In process	X	X	X		X	X			

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
100	Valentine Trust	2006			X					X	
104	Aguilar TPM	1998	X	X	X						
108	Bonsall Subdivision	2005	X					X			
110	VandeVegte TM	2005									X
111	Brook Forest	2001	X		X	X	X	X	X		
112	Choi TM	2001	X			X		X			
113	Oak Glen	2006			X				X		
116	Rabbit Run	2006									X
117	Froehlich TM	2006	X						X		
118	White Fox Run TPM	2005	X		X		X	X			
119	Baldwin TM	2006	X	X	X	X		X			
121	Orchard Vista TM	2006	X					X	X		
123	Pepper Tree Park	2005					X				
125	Uchimura TM	2003									X
126	Lash TM	2002						X			X
127	Heritage Homebuilders TM	1993			X	X					

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
128	Kesonovich TM	1989			X						
136	Hormuth TPM	1999			X						
137	Arkeder TPM	2002			X	X					
138	Amos Family Trust TPM	2001	X		X		X				
139	White TPM	2001	X				X				
140	Heritage Oaks TPM	1999			X						
142	Zebu TPM	2001	X		X						
143	Compton TPM	2004	X		X	X					
149	Pacifica Estates	2006	X				X	X			
155	Ferraro TPM	2004				X		X			
156	Palomar Dr. Subdivision	2005	X			X	X	X			
159	Golf Green Estates	2006					X				
161	The Crest	2003	X				X	X			

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