

2.5 Biological Resources

A Biological Resources Report was prepared by RECON Environmental, Inc. (2013c; Appendix G) and is based upon an assessment of existing vegetation communities, plant species, and wildlife species. Focused surveys were conducted for the following sensitive wildlife species: least Bell's vireo (*Vireo bellii pusillus*), coastal California gnatcatcher (*Polioptila californica californica*), and cactus wren (*Campylorhynchus brunneicapillus couesii*). Habitat assessments were conducted for the following sensitive wildlife species: southwestern willow flycatcher (*Empidonax traillii extimus*), burrowing owl (*Athene cunicularia hypugaea*), Hermes copper butterfly (*Lycaena hermes*), Stephens' kangaroo rat (*Dipodomys stephensi*), and arroyo toad (*Bufo californicus*).

2.5.1 Existing Conditions

2.5.1.1 Regulatory Framework

Biological resources are subject to regulatory oversight at the federal, state, and local levels (County of San Diego 2010b).

Federal Regulations

Endangered Species Act

The federal 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 ESA. Take of a federally listed threatened or endangered species is prohibited unless a take permit is issued. The ESA 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 U.S. Fish and Wildlife Service (USFWS) and an incidental take permit has been issued. The ESA 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.

Clean Water Act

The 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.

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 (2004). The MBTA is generally protective of migratory birds.

State of California

California Environmental Quality Act (CEQA)

CEQA requires that biological resources be considered when assessing the environmental impacts that are the result of proposed actions. The lead agencies determine the scope of what is considered an impact and what constitutes an “adverse effect” on a biological resource.

California Fish and Game Code

The California Fish and Game Code regulates the taking or possession of birds, mammals, fish, amphibians and reptiles, as well as natural resources such as wetlands and waters of the state. It includes the California Endangered Species Act, Streambed Alteration Agreement regulations, and California Native Plant Protection Act.

California Endangered Species Act

The California Endangered Species Act (CESA), similar to the federal ESA, 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 CESA. State threatened and endangered animal species are legally protected against “take.” The CESA authorizes the 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.

Streambed Alteration Agreement Regulations

The California Fish and Game Code (Sections 1600 through 1603) requires a Streambed Alteration Agreement with CDFG for projects affecting riparian, wetland habitats, and all other waters of the state.

California Native Plant Protection Act

Section 1900–1913 of the California Fish and Game Code contains the regulations of the Native Plant Protection Act of 1977. The intent of this act is to help conserve and protect rare and endangered plants in the state.

Porter Cologne Act

The RWQCB not only regulates impacts to water quality in waters of the U.S. under Section 401 of the CWA, but also regulates the isolated waters that are impacted under the state Porter Cologne Act utilizing a Waste Discharge Requirement. Discharge of fill material into waters of the state not subject to the jurisdiction of the ACOE pursuant to Section 404 of the CWA 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.

Natural Community Conservation Planning Act of 1991

The NCCP Act is designed to conserve natural communities at the ecosystem scale, while accommodating compatible land use. CDFG is the primary state agency that implements the NCCP. The NCCP plan provides for the comprehensive management and conservation of multiple wildlife species. It identifies and provides for regional protection of natural wildlife diversity while allowing for compatible and appropriate development and growth.

California Oak Woodland Conservation Act

This act established the Oak Woodland Conservation Program, administered by the Wildlife Conservation Board, to help local jurisdictions protect and enhance their oak woodland resources. It offers landowners, conservation groups, and cities/counties an opportunity to obtain funding for projects designed to conserve and restore California's oak woodlands.

County of San Diego

San Diego County General Plan: Conservation and Open Space Element

The Conservation and Open Space Element of the General Plan provides guiding principles for the conservation of biological resources. This element also outlines land use-based conservation goals and policies that protect the ecological and lifecycle needs of threatened, endangered, or otherwise sensitive species and their associated habitats.

Multiple Species Conservation Program and Biological Mitigation Ordinance

As part of the implementation of the NCCP, the County, along with other local agencies, is in the process of preparing a MSCP. 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 Plan for the unincorporated areas of northern San Diego County. This plan, if adopted, will be regulated by the BMO, which outlines the specific criteria (i.e., project design, impact allowances, mitigation requirements) for projects within an MSCP boundary. The BMO would only be applicable to the project if the North County MSCP is adopted.

The MSCP generally does not designate an exact preserve boundary, but instead designates large 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. In such areas, preservation and development area decisions are made during MSCP development with respect to the location of open space and development.

The project site is located within the proposed North County MSCP area (Figure 2.5-1). The site is not located within a proposed PAMA, but a proposed PAMA is located approximately 130 feet to the north (Keys Canyon) and 400 feet to the west (I-15 corridor) of the site. Proposed MSCP preserve areas are scattered throughout the vicinity. Likewise, proposed MSCP Take Authorization Areas occur off-site to the east. Neither of the proposed MSCP Preserve Areas or Take Authorization Areas are adjacent to the project site. The project site includes two small existing open space easements that occur outside of a PAMA (see Figure 2.5-1). Small open space easements are also scattered throughout the vicinity, including two that are directly adjacent to the site and four within approximately 300 feet of the site.

Resource Protection Ordinance

The RPO limits impacts to several sensitive natural resources found throughout San Diego County. These sensitive resources include wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands, and prehistoric and historic sites. Under the RPO, impacts to wetlands are restricted, and a wetland buffer is required where development is adjacent to wetland areas. In addition, encroachment into RPO steep slope lands (25 percent or greater grade for 50 or more feet) must be minimized. RPO also limits impacts to sensitive habitat lands, which include unique vegetation communities and/or the habitat that is either necessary to support a viable population of sensitive species, is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning wildlife corridor.

Habitat Loss Permit Ordinance

The County regulates coastal sage scrub habitat loss through the HLP Ordinance. An HLP is a process that enables the County to issue "take" permits for the federally listed coastal California gnatcatcher, as allowed through the federal ESA. 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, an 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.

2.5.1.2 Vegetation Communities

As shown in Figures 2.5-2a-c and Table 2.5-1, a total of 17 primary habitat types and vegetation communities were identified within the project site and 100-foot buffer survey area. A total of 10 habitat types were identified within the off-site improvement survey area (see Figures 2.5-2a-c; Table 2.5-2). Native habitat occurs primarily along the drainage courses and steeper terrain on the western and southwestern portions of the project site. The flatter portions of the project site were used for various agricultural activities. Portions of the native habitat have been disturbed by previous agricultural activities, maintenance activities (e.g., brush management and mowing), invasive species, and indirect adjacency/edge effects. The following provides a brief explanation of the characteristics of each habitat type as it relates to the project site.

Coastal Sage Scrub and Disturbed Coastal Sage Scrub

Coastal sage scrub vegetation occurs in various sized patches within the project site. The largest patches of relatively undisturbed coastal sage scrub occur in the north and central portion. More disturbed patches of coastal sage scrub vegetation are located in the west-central portion of the project site. Coastal sage scrub vegetation also occurs within the survey area for the proposed off-site improvement areas: adjacent to West Lilac Road to the east and west of I-15; at the intersection of West Lilac Road and Old Highway 395; adjacent to western portion of Circle R Drive, and at the intersection of Gopher Canyon Road and Old Highway 395.

Habitat quality is moderate for the relatively undisturbed patches of coastal sage scrub on-site because of relatively small acreage, edge effects, and the isolation of these areas from contiguous undisturbed native vegetation. Habitat quality for disturbed patches of coastal sage scrub on-site is considered low due to the continued maintenance of the vegetation by the property owners (i.e., fuel management). The habitat quality of the coastal sage scrub habitat adjacent to West Lilac Road, Circle R Drive, and at Gopher Canyon Road/Old Highway 395 is generally high further away from the road; however, the vegetation closest to these roads is more disturbed due to edge effects. This habitat does not meet the criteria to be considered a RPO sensitive habitat.

Southern Mixed Chaparral and Disturbed Southern Mixed Chaparral

Southern mixed chaparral vegetation occurs as a large, relatively undisturbed patch within the project site. This vegetation community occurs in the central and southern portions of the project site on the western-facing slopes. Disturbed areas of southern mixed chaparral are mapped along the edges of the larger patches. Vegetation in these disturbed areas is maintained as part of fuel breaks, access roads, and areas being converted to agriculture.

The habitat quality of the undisturbed southern mixed chaparral on-site is moderate to high, as the vegetation remaining is in a large contiguous patch that connects to native chaparral areas off-site to the southwest. The dense cover of native shrubs contains a diverse assemblage of chaparral species. Disturbed areas of southern mixed chaparral have low to moderate habitat values. Areas that are being slowly converted to agriculture have fewer species recovering after seasonal clearing, and thus have low habitat values. Southern mixed chaparral maintained as part of fuel breaks have more species recovering between disturbances, but the diversity of shrub species is less in these areas. This habitat does not meet the criteria to be considered a RPO sensitive habitat.

Coast Live Oak Woodland

Coast live oak woodland occurs in relatively small patches within the project site. The largest area occurs in the southwestern portion on a north-facing slope above a small, narrow canyon. Smaller patches of coast live oak woodland occur within orchards and agricultural areas. A disturbed area of this habitat type was mapped in the southwestern part of the project site, where the oak woodland is recovering from past agricultural practices that have been abandoned. The coast live oak woodland present within the off-site improvement survey areas is located to the south of West Lilac Road and east of I-15, in small patches to the east and west of the southern part of Mountain Ridge Road,

along the south side of the eastern half of Circle R Drive, and east and west of Old Highway 395 north of Gopher Canyon Road.

The coast live oak woodland on the north-facing slope in the southwestern part of the site has relatively high habitat values due to the location of the habitat adjacent to native riparian areas in the canyon below and an understory composed of native plant species. The habitat quality of the coast live oak woodland that occurs in the disturbed patches and orchards or adjacent to agricultural areas is low to moderate as the small groupings of oak trees provide some habitat, but these areas lack a native understory. Coast live oak woodland is not considered a RPO sensitive habitat type.

Eucalyptus Woodland

A small, narrow stand of eucalyptus trees occurs on-site in the extreme northeast portion of the project site. The trees were planted adjacent to West Lilac Road and an access road along a property boundary. Small stands of eucalyptus trees also occur within the off-site improvement survey area to the south of West Lilac Road east of I-15 and at the intersection of Circle R Drive and Old Highway 395. The eucalyptus trees form a small woodland stand that has low to moderate habitat values due to its proximity to roads and the potential to be used by raptor and other bird species for roosting and nesting. Eucalyptus woodland is not considered a RPO sensitive habitat.

Disturbed Coastal/Valley Freshwater Marsh

A relatively small area of coastal/valley freshwater marsh occurs upstream of a dirt road crossing of a drainage that supports primarily oak riparian woodland in the northeast portion of the project site. A second area of coastal/valley freshwater marsh occurs upstream of an impoundment created by a road crossing in the northwestern portion of the site. This pond supports a few scattered patches of cattail.

The habitat value for the freshwater marsh associated with the oak woodland area is low due to the predominance of pampas grass, but could be improved with eradication of the non-native plant species. When the freshwater marsh area is considered in conjunction with the oak riparian woodland of the drainage course, the overall habitat value would be moderate, as the marsh adds diversity to the adjacent woodland areas. Coastal/valley freshwater marshes are wetlands and are considered a category of RPO wetland. Wetlands, in general, are also considered sensitive resources under the jurisdiction of federal ACOE and state (CDFG and RWQCB) agencies.

Habitat values for the impoundment pond are moderate due to the sparse native vegetation, small acreage, and water levels that fluctuate. Wildlife species likely use this pond as a supplemental water source. This pond is part of a natural drainage course and was considered a jurisdictional wetland. The pond is also considered a RPO wetland with moderate biological function or value as a wetland.

Southern Coast Live Oak Riparian Woodland and Disturbed Southern Coast Live Oak Riparian Woodland

Southern coast live oak riparian woodland on-site is the predominant vegetation community supported by the larger intermittent drainages and the main tributaries to these larger drainages within the project site. This riparian woodland vegetation

community occurs along most of the western border of the main project site and along tributary east-west drainages in the central portions. One area of southern coast live oak riparian woodland is characterized as disturbed due to the predominance of pampas grass in the understory along a tributary drainage in the northern portion of the project site. This riparian woodland habitat occurs within the off-site improvement survey area to the north of Circle R Drive near its intersection with Mountain Ridge Road and at the hairpin turn near the central portion of Circle R Drive.

Overall habitat values for the southern coast live oak riparian woodlands areas on and off the site are high. The mature coast live oak and willow trees form tree layer with an understory of native shrubs and herbaceous species. Wild grape forms a dense covering of the riparian vegetation during the spring and summer months. This riparian woodland habitat supports a diverse bird population, including different raptor species, as well as, a variety of insects, reptiles, and mammals. Southern coast live oak riparian woodlands are RPO wetlands that also fall under the jurisdiction of federal (ACOE) and state (CDFG and RWQCB) resource agencies.

Southern Willow Scrub and Disturbed Southern Willow Scrub

Southern willow scrub vegetation occurs in the extreme southern portion of the main project site and as part of the smaller out-lying project sites to the west. It is associated with portions of the larger, intermittent drainage courses in these areas. A narrow strip of disturbed southern willow scrub occurs along a drainage course in the east-central part of the project site where the drainage course is affected by agricultural activities that have cleared the understory and reduced the density of willow cover.

Overall habitat values for the southern willow scrub in the extreme southern part of the site are moderate due to edge effects associated with the agricultural activities adjacent to the drainage course and the relatively narrow width of the willow scrub habitat. The smaller patch of willow scrub habitat on the outlying project area to the west has moderate habitat values due to edge effects from adjacent homes. Both of these areas support a diverse assemblage of bird species. Insects, reptiles, and mammals also use these riparian areas. Southern willow scrub areas are considered a RPO wetland. Wetlands, in general, are also considered sensitive resources under the jurisdiction of federal (ACOE) and state (CDFG and RWQCB) agencies.

Southern Willow Riparian Woodland

Southern willow riparian woodland vegetation occurs in the extreme northwestern portion of the project site. It is associated with portions of the larger, intermittent drainage course in the area adjacent to orchards.

Overall habitat values for the southern willow riparian woodland are moderate due to edge effects associated with the agricultural activities adjacent to the drainage course and the narrow width of the willow woodland habitat. This area supports a diverse assemblage of bird species, insects, reptiles, and mammals. Southern willow riparian woodland is considered a category of RPO wetland. Wetlands, in general, are also considered sensitive resources under the jurisdiction of federal (ACOE) and state (CDFG and RWQCB) agencies.

Mule Fat Scrub

Mule fat scrub vegetation on-site occurs as a small patch in an intermittent drainage course near the eastern part of the project. A narrow strip of mule fat scrub occurs along a drainage course that is affected by adjacent agricultural activities. The strip of vegetation is made up of a pure stand of mule fat shrubs.

Overall, the habitat value for the mule fat scrub is low due to edge effects associated with the agricultural activities adjacent to the drainage course and the relatively narrow width of the mule fat scrub habitat. It is anticipated that the mule fat scrub supports a limited assemblage of bird species, insects, reptiles, and perhaps small mammals.

Mule fat scrub is considered a category of RPO wetland. Wetlands, in general, are also considered sensitive resources under the jurisdiction of federal (ACOE) and state (CDFG and RWQCB) agencies.

Disturbed Wetland

A relatively small area of disturbed wetland occurs along a drainage course within an orchard in the south-central part of the project site. The disturbed wetland is located upstream of an existing wall that functions to temporarily detain water at this location. The herbaceous wetland vegetation that grows in the area of detention is characterized as disturbed due to it being periodically mowed as part of the vegetation maintenance activities associated with the orchard.

The habitat value of this wetland area is low due to the regular vegetation disturbance that occurs. Non-native species have invaded the area and further degrade the habitat values. Disturbed wetlands are considered RPO wetlands in some circumstances.

Open Water – Freshwater

Two ponds occur within the project site and are characterized as open water habitat. These freshwater ponds were created to store water for agricultural purposes. One pond is located in the southern portion of the project site within active agricultural fields used for row crops. The other pond is located in the northern portion of the project site within orchards. Minimal vegetation grows around this pond. One man-made agricultural pond occurs within the off-site survey area to the east of Mountain Ridge Road. This pond has no vegetation associated with it.

Habitat values for the on- and off-site agricultural ponds are low due to the lack of native vegetation, small acreage, and water levels that fluctuate. Wildlife species likely use these ponds as a supplemental water source. These three ponds are man-made and were not considered jurisdictional wetlands. The ponds were not considered RPO wetlands because they are man-made, have negligible biological function or value as a wetland, are small and geographically isolated from other wetland systems, are not vernal pools, and do not have substantial or locally important populations of wetland-dependent species.

Disturbed Habitat

Disturbed habitat characterizes areas within the project site and off-site improvement areas where more or less permanent disturbances inhibit the growth of native vegetation. The designation was used primarily to distinguish the many roads that bisect the project site, as well as areas adjacent to orchards or agricultural fields where equipment is stored or the vegetation is maintained as part of the agricultural operation (i.e., wells, mulch areas). These areas are mostly devoid of vegetation, but some of the disturbed areas near agricultural areas may occasionally support a growth of non-native annual species.

Habitat values for disturbed areas are considered low due to the lack of native vegetation. Areas mapped as disturbed habitat are not considered RPO sensitive habitat.

Extensive Agriculture (Row Crops), Intensive Agriculture (Nursery), Vineyards and Orchards

Large acreages of the project site and off-site improvement survey areas are used for various agricultural purposes. Agricultural lands cover the majority of the southeastern, east-central, and northern portions of the project site. Limited patches of native vegetation remain in some areas, usually associated with drainage courses.

Habitat values for areas used for row crops, vineyards, and nurseries are generally low due to the lack of native vegetation and continual disturbance of the land. Mature orchards have moderate habitat values as the dense tree canopy provides habitat used by raptors and other birds. Fruit dropped by the trees likely provides a food source for insects, birds, and mammals. These agricultural areas are not considered RPO sensitive habitats.

Developed

Areas mapped as developed occur as relatively small areas scattered throughout the project site and off-site survey areas. This designation is used for existing or abandoned home sites and where the vegetation is largely ornamental (i.e., lawns, exotic trees, landscaped areas). These areas have low habitat values due to the lack of native vegetation and proximity to areas regularly used by humans. Developed areas, when considered a subset of disturbed lands, are not RPO sensitive lands.

2.5.1.3 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 are found in the Biological Resources Report (see Appendix G). Databases of such resources are maintained by the CDFG, the USFWS, and special groups such as the California Native Plant Society (CNPS).

Wetlands/Jurisdictional Waters

A wetland delineation survey was performed in accordance with ACOE guidelines to determine the presence/absence of jurisdictional wetlands and waters on-site. The results of this delineation are included in the Wetland Delineation/Jurisdictional Determination Report (Attachment 12 of the Biological Resources Report [see Appendix G]) and are summarized below.

As indicated in Table 2.5-3, habitats under the jurisdiction of the ACOE, CDFG, RWQCB, and County are located within the project site. The 18.13-acre ACOE jurisdictional area includes 4.69 acres of non-wetland waters of the U.S. and 13.44 acres of wetlands (Figure 2.5-3a). CDFG/RWQCB jurisdictional areas consist of 4.18 acres of streambed and 39.35 acres of wetlands, totaling 43.52 acres (Figure 2.5-3b). A total of 37.64 acres on-site is County RPO wetlands (Figure 2.5-3c). The habitat quality of the coast live oak riparian woodlands, southern willow riparian woodlands, and willow scrub habitats within the project site is generally high to moderate depending on the proximity of the wetland to agricultural activities. Canopy cover of the coast live oak woodland and willow woodland/scrub vegetation is generally dense with only a few openings, which are often further covered with a layer of wild grape. Species diversity is high to moderate depending on the location and proximity to agricultural activities where edge effects can affect diversity. The major drainages containing the majority of the wetland habitats on-site continue off-site and connect to similar habitats upstream, but especially downstream.

Portions of the wetlands identified are disturbed. Some wetland areas have been impacted by agricultural activities (i.e., clearing, edge effects, debris piles, etc.) that lower habitat quality. Other wetland areas have infestations of non-native species, in particular pampas grass, that effect species diversity and habitat quality in the understory. Overall, these disturbed areas are a relatively small acreage of the wetlands delineated on-site.

The wetlands within the project site are important locally because they provide vegetated areas that help protect the watershed. They also provide a water source for local wildlife species and habitat that has both species diversity and structure to support a variety of plants and animals. Regionally, these wetlands and associated drainage courses protect the downstream watershed of Moosa Creek and ultimately the San Luis Rey River by moderating erosion, sedimentation, and stream flows. Overall, wetland functions and values of the drainage courses in the project area are generally high in the relatively undisturbed areas and lower in disturbed wetlands or areas affected by agriculture.

Sensitive Plants

Eleven sensitive plant species were identified as having the potential to occur within the project site. Of these 11 species, three were observed, while the remaining species on the list were considered to have a low or moderate (one species) potential for occurrence.

The three species observed include the following:

- Prostrate spineflower (*Chorizanthe procumbens*). This plant is not a state or federally listed species and is no longer a ranked species by the CNPS, but is

currently on List D of the County sensitive species list. This spineflower species was observed on-site in relatively low numbers (<100 individuals) intermixed with a more common species of spineflower that occurs in larger numbers.

- Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*). This plant is not a state or federally listed species. CNPS ranks this species a 4.2, and the County places the species on List D. As shown in Figure 2.5-2a, approximately 20 individuals of southwestern spiny rush were observed in a drainage course on the site. There is the potential for additional individuals of this species to occur in the riparian woodlands within the project site that were inaccessible. This small population of southwestern spiny rush contributes to the local species diversity of the habitats on-site, but the population numbers do not appear to be great enough to consider this location a significant regional population.
- Engelmann oak (*Quercus engelmannii*). This tree is not a state or federally listed species, but it is a CNPS rank 4.2 species and on List D of the County. As shown in Figure 2.5-2a-b, three Engelmann oak trees were observed on-site associated with coast live oak riparian woodlands. These three trees add to the local species diversity of the riparian woodlands on-site, but the population numbers are too low to consider this a significant regional population of the species.

Additional details of the occurrence of these plants within the project site are found in Section 1.4.5 of the Biological Resources Report (see Appendix G) prepared for the project.

Sensitive Wildlife

Fifty-one sensitive wildlife species were identified as having the potential to occur on the project site. Of these 51 species, 13 were observed within the project site.

The 13 species observed on-site are listed below. Figures 2.5-2a and 2-7b show the locations where each observation was made.

- Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*). This lizard species is considered a federal species of concern, a species of special concern by CDFG, is on the Group 2 species list for the County, and is a covered species under the MSCP. The Belding's orange-throated whiptail were observed on-site; two near coast live oak riparian woodland, three near disturbed coastal sage scrub, and one near southern mixed chaparral habitat. Habitats within the project site are likely to support additional individuals of this reptile species. However, given the relatively wide range of this lizard in San Diego County, these locations do not represent a significant regional population.
- Coastal western whiptail (*Cnemidophorus multiscultatus tigris*). This lizard species is considered a federal species of concern, is on the Group 2 species list for the County, and is a covered species under the MSCP. As shown on Figure 2.5-2b, one individual of coastal western whiptail was observed on-site in an orchard adjacent to coast live oak riparian woodland. Habitats within the project site are likely to support additional individuals of this reptile species. However, given the relatively wide range of this lizard in San Diego County, this observation does not represent a significant regional population.

- Red diamond rattlesnake (*Crotalus ruber*). This rattlesnake species is considered a federal species of concern, a species of special concern by CDFG, is on the Group 2 species list for the County, and is a covered species under the MSCP. As shown on Figure 2.5-2a-b, two individuals of red diamond rattlesnake were observed on-site at two separate locations. One sighting of this rattlesnake was within coast live oak riparian woodland, and the other was made in an open area adjacent to southern mixed chaparral. Habitats in the project likely support additional individuals of this snake species; however, given the relatively wide range of this reptile in San Diego County, these locations do not represent a significant regional population.
- Cooper's hawk (*Accipiter cooperii*). The Cooper's hawk is considered a species of special concern by CDFG and is on the Group 1 list with the County. As shown on Figure 2.5-2a-b, four individuals of this raptor species were observed on-site. The species was observed using coast live oak riparian woodland, orchards, and coastal sage scrub. Given the relatively wide range of this bird species in San Diego County, these locations do not represent a significant regional population.
- White-tailed kite (*Elanus leucurus*) – A pair of white-tailed kites was commonly seen using the southern willow scrub and adjacent agricultural fields and orchards in the southern portion of the site (see Figure 2.5-2b). This species is considered a California fully protected species by CDFG for nesting areas and is a Group 1 species on the County list. While no nests were observed, breeding behaviors were observed during the spring. Given the relatively wide range of this bird species in San Diego County, this location does not represent a significant regional population.
- Turkey vulture (*Cathartes aura*) – Turkey vultures were commonly observed flying overhead across much of the site (see Figure 2.5-2a-b). A group of four individuals of this species were observed roosting in a young orchard on one occasion. This species is listed on Group 1 of the County. Turkey vultures are commonly seen in San Diego County; therefore, the population in the vicinity of the project area does not represent a significant population of the species.
- Loggerhead shrike (*Lanius ludovicianus*) – The loggerhead shrike is a species of special concern under CDFG and is listed as a Group 1 species in the County. One individual of this bird species was observed in an orchard adjacent to southern mixed chaparral on-site. Other areas of suitable habitat occur in the project area that could support the loggerhead shrike. Given the relatively wide range of this bird species in San Diego County, this location does not represent a significant regional population.
- Western bluebird (*Sialia mexicana occidentalis*) – The western bluebird is listed as a Group 2 species by the County. One individual of this species was observed within southern mixed chaparral on-site (see Figure 2.5-2b). Other areas of suitable habitat occur in the project area that could support the western bluebird. Given the relatively wide range of this bird species in San Diego County, this location does not represent a significant regional population.
- Yellow warbler (*Dendroica petechia*) – This bird species is considered a species of special concern under CDFG and is listed as a Group 2 species in the County.

Nesting sites for the yellow warbler are of particular concern. One yellow warbler was observed in coast live oak riparian woodlands habitat on-site (see Figure 2.5-2b). Other areas of riparian woodland and scrub on-site provide additional habitat for this species to occur. Given the relatively wide range of this bird species in San Diego County, this location does not represent a significant regional population.

- Yellow-breasted chat (*Icteria virens auricollis*) – Five yellow-breasted chat individuals were observed on-site within coast live oak riparian woodland and willow scrub habitats (see Figure 2.5-2b). This bird species is considered a species of special concern under CDFG and is listed as a Group 1 species in the County. Nesting sites for the yellow-breasted chat are of particular concern. Given the relatively wide range of this bird species in San Diego County, this location does not represent a significant regional population.
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) – This rabbit species is a federal species of concern, a species of special concern under CDFG, and is in Group 2 for the County. Two individuals of San Diego black-tailed jackrabbit were observed near coastal sage scrub and agricultural areas on-site (see Figure 2.5-2a-b). Suitable habitat for this species occurs in the project area, but on-site populations may be effected by agricultural pest control measures. Given the relatively wide range of this rabbit species in San Diego County, this location does not represent a significant regional population.
- San Diego desert woodrat (*Neotoma lepida intermedia*) – Nests/homes of the San Diego desert woodrat were relatively common in the undisturbed coastal sage scrub and southern mixed chaparral vegetation on-site. A few nests were also observed on the margins of coast live oak riparian woodland habitat. The San Diego desert woodrat is considered a federal species of concern, a species of special concern under CDFG, and is on the Group 2 County. Given the relatively wide range of this woodrat species in San Diego County, this location does not represent a significant regional population.
- Southern mule deer (*Odocoileus hemionus fuliginata*) – The southern mule deer is a large mammal species that occurs on the Group 2 list for the County. A group of three mule deer were observed on-site in an open area adjacent to southern mixed chaparral (see Figure 2.5-2a). The riparian woodlands, coastal sage scrub, and southern mixed chaparral vegetation on-site provides habitat to support a small mule deer population, but overall presence of mule deer in the project area could be effected by human activities and their pets such as agricultural, residences, and domestic dogs.

While not observed during surveys, the following sensitive species is likely to occur on-site:

- Coast horned lizard (*Phrynosoma coronatum blainvillii*) – This horned lizard subspecies is considered a federal species of concern, a species of special concern by CDFG, and is on the Group 2 list for the County. One individual of coast horned lizard was observed just off-site in the southwestern portion of the project site in an open area adjacent to southern mixed chaparral (see Figure 2.5-2b). This species has a high potential to occur on-site due to the

proximity of the initial sighting to the project site and the presence of suitable habitat in the site. The habitat on-site is limited and therefore likely does not support a significant regional population of this lizard species.

2.5.1.4 Habitat Connectivity and Wildlife Corridors

Habitat Connectivity

Native habitat in the survey area is located primarily along the western portion of the project site and along the major drainage courses. Habitat connectivity to off-site lands to the east is confined mostly to drainage courses that have remnant patches of native riparian habitat (e.g., riparian woodlands and scrubs). The majority of the land to the east is in some state of agriculture or localized urban development. Native habitat in the northern portion of the project area occurs just south of habitat in Keys Canyon, which is identified as a regional habitat linkage in the draft North County MSCP. Small areas of developed and agricultural lands separate on-site coastal sage scrub habitat from coastal sage scrub, mixed chaparral habitats, and riparian woodlands/scrubs in Keys Canyon. Habitat in the southern portion of the project area is north of the regional Moosa Canyon habitat linkage identified in the draft North County MSCP. On-site riparian scrub habitat is separated from habitat patches of coastal sage scrub, mixed chaparral, and riparian woodlands/scrubs to the south by local small urban developments and agricultural operations. Habitat connectivity to the west and southwest is linked through patches of coastal sage scrub, mixed chaparral, and riparian woodlands. Small localized urban developments and agricultural operations are interwoven between this connection and the regional Escondido-Temecula habitat linkage along the I-15 corridor identified in the draft North County MSCP.

Under the existing condition, the relatively large patches of southern mixed chaparral and southern coast live oak woodlands in the project area form a relatively large block of native vegetation between regional habitat linkages to the north, south, and west. These on-site habitat patches are suitable to support local populations of plant and wildlife species and may function as a “stepping stone” connection for wildlife that can migrate between the larger regional connections, as described below.

Wildlife Corridors

The project area contains local east-west wildlife corridors primarily along the riparian woodlands and riparian scrubs in the major drainage courses. The relatively large patch of southern mixed chaparral and riparian woodlands on the western portion of the main project area provides dense cover for a local north-south wildlife corridor through the site. The rolling hills and steep-sided drainage courses allow for movement of birds and mammal species between the more open agricultural lands. Wildlife corridors along drainage courses range in width from over 100 feet to less than 50 feet on the more narrow drainages. The north-south wildlife corridor through existing native habitat extends for approximately 7,500 feet in length, while the four primary east-west wildlife corridors along smaller drainage courses are each approximately 2,300 feet in length.

The above-mentioned corridors are composed of a gentle sloping valley in the southern portion of the site and rolling hills with ridges of various steepness and drainage courses, both shallow and deeper, throughout the remainder of the site. Wildlife species that could use these corridors are likely birds that move up and down the riparian

woodlands/scrubs of the drainages, and larger mammals, such as mule deer, coyote, rabbits, etc. Scattered localized developments and agricultural fields and orchards affect the width of the native habitats within these corridors and may deter regular usage by certain mammal species.

The local wildlife corridors identified on-site are not recognized as important regional linkages in the draft North County MSCP. These local wildlife corridors could provide secondary corridor connections between the identified regional linkages to the north (Keys Canyon), south (Moosa Creek), and west (I-15 Escondido–Temecula), primarily along the larger drainage courses.

2.5.2 Analysis of Project Impacts and Determination of Significance

For the purpose of this EIR, the basis for the determination of significance is based on CEQA Guidelines, Appendix G and County's Guidelines for Determining Significance – Biological Resources, adopted September 15, 2010 (County of San Diego 2010b). As indicated in CEQA Guidelines Appendix G, a significant impact to biological resources may occur if the project would:

1. *Special Status Species*: Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.
2. *Riparian Habitat/Sensitive Natural Community*: Have a substantial adverse effect on any riparian habitat or other community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS.
3. *Jurisdictional Waters and Waterways*: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. *Wildlife Movement*: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of a native wildlife nursery site.
5. *Local Policies/Ordinances*: Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.
6. *HCP/NCCP Conflicts*: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

These six CEQA Guidelines Appendix G issue questions are analyzed under five issue areas; special status species (Issue 1), riparian habitat or sensitive natural community (Issue 2), jurisdictional waters and waterways (Issue 3), wildlife movement and nursery sites (Issue 4), and local policies, ordinances, adopted plans (Issues 5 and 6). The County's Guidelines for Determining Significance – Biological Resources (2010b) includes specific guidelines pertaining to each of these CEQA Guidelines Appendix G

issue questions to determine significance. These guidelines are presented below under each issue area.

2.5.2.1 Issue 1: Special Status Species

Guidelines for the Determination of Significance

Based on the County's Guidelines for Determining Significance – Biological Resources, adopted September 15, 2010, the project may have a significant impact to a special status species if:

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

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

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

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

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

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

G. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species. Alteration of any portion of a core habitat could only be considered less than significant if a biologically-based determination can be made that the project would not have a substantially adverse effect on the core area and the species it supports.

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

I. The project would impact occupied burrowing owl habitat.

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

K. The project would impact occupied Hermes copper habitat.

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

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

Analysis

Sensitive Plants

No federal or state listed, or County List A or B plant species would be impacted by the project. The project would result in direct and indirect impacts to three plants species on List D of the County: prostrate spineflower, western spiny rush, and Engelmann oak tree.

- Prostrate spineflower - Project impacts would result in the direct loss of up to 100 individuals of prostrate spineflower and also would indirectly impact the remaining prostrate spineflowers located in proposed open space through edge effects. These direct and indirect impacts to prostrate spineflower would be **less than significant**, as the overall population numbers are not regionally significant and the number of individuals remaining after project implementation would be low.
- Southwestern spiny rush - The project would not directly impact southwestern spiny rush, but indirect impacts to the 20 individuals may occur through indirect edge effects impacts. These indirect impacts would be considered **less than significant** as the number of individuals of this species to remain after

implementation of the project is relatively low and not enough to consider this location a significant regional population.

- Engelmann oak trees – No direct impacts to Engelmann oak trees would occur as a result of the project. Engelmann oak trees remaining in open space areas would be potentially impacted indirectly due to edge effects. These indirect impacts would be considered **less than significant** as the number of individuals of this species to remain after implementation of the project is relatively low and not enough to consider this location a significant regional population.

Sensitive Wildlife

No federal or state listed species would be impacted by the project. The project would impact the following 13 Group 1 or federal/state species of special concern species: red diamond rattlesnake, coastal western whiptail, orange-throated whiptail, coast horned lizard, turkey vulture, western bluebird, white-tailed kite, Cooper's hawk, yellow warbler, yellow-breasted chat, San Diego black-tailed jackrabbit, and southern mule deer. Direct impacts would likely occur to species that are slow-moving, such as reptiles and small mammals, while direct losses of individuals are not anticipated for species that are more mobile, such as birds and large mammals. As such, species would be primarily impacted through habitat (southern mixed chaparral, coastal sage scrub, southern coast live oak riparian woodland, southern willow riparian woodland/scrub and agricultural lands) loss. The impacts to these 13 sensitive species would be **less than significant** given the wide range of the species and the fact that the project site does not contain a regionally significant population of these species. Indirect edge effect impacts (i.e., noise, lighting, invasive plants, grading encroachments, etc.) to these sensitive wildlife species would also be **less than significant** considering the number of individuals of each species to remain after implementation of the project would be low.

The project site includes habitat suitable for raptor nesting, as the site includes eucalyptus, oak, orchard trees, and other mature trees. As indicated in Table 2.5-1, the project would directly impact eucalyptus woodland, orchards, and oak woodlands. This would result in the direct loss of functional nesting habitat for raptors. The project could also indirectly impact nesting raptors that remains on-site or adjacent to the project through edge effects, such as noise and lighting. Construction operations, if conducted within 300 feet of an active raptor nest, also have potential to disrupt nesting and breeding. Raptors are protected by Fish and Game Code Section 3503. To comply with this Fish and Game Code, the project would either complete construction outside of the raptor breeding season (January 15–July 15) or conduct preconstruction nesting raptor surveys and complete avoidance measures, as necessary. Refer to Table 1-3, Project Design Considerations, in subchapter 1.2.2 for more details. As such, raptor nesting impacts would be **less than significant**.

Almost all of the on-site habitats are suitable for raptor foraging. The project would directly impact 538.29 acres of the 610.76-acre site, which is 88 percent of the raptor foraging habitat on-site. This would result in the direct loss of foraging habitat for raptors. The project could also indirectly impact foraging habitat that remains on-site or adjacent to the project through edge effects, as mentioned above. As the project would impact more than 5 percent of the raptor foraging habitat on-site, the project raptor foraging impact would be **significant (Impact BIO-1)**.

The project would not impact arroyo toad, golden eagles, burrowing owls, cactus wren, or Hermes copper butterflies, as these species were not located on-site and are not expected to occur on-site. The project would not impact the viability of any core wildlife area, as the site is not within a designated core wildlife corridor. As such, the project would have **no impact** to these biological resources.

Off-site Improvements

The Miller Station site is graded and disturbed due to its current use as a fire facility including parking. **No impacts** would occur as a result of the proposed construction or expansion of the Miller Station firehouse.

Clearing and possible grading would be required and meet the sight distance requirements to the south of the intersection of Covey Lane and West Lilac Road. The proposed area to be cleared is located on the east side of West Lilac Road just south of its intersection with Covey Lane (see enclosure). The approximately 480 feet of clearing would occur on a slope that is vegetated with predominantly non-native ornamental trees (e.g., pine, pepper, eucalyptus, olive) with non-native fountain grass on the road cut slope. Two native coast live oak trees occur at the south end of the clearing zone, but if impacts to these trees can be restricted to removal of the lower limbs and not complete tree removal then **no impacts** to biological resources would occur.

2.5.2.2 Issue 2: Riparian Habitat or Sensitive Natural Community

Guidelines for the Determination of Significance

Based on the County's Guidelines for Determining Significance – Biological Resources, adopted September 15, 2010, the project may have a significant impact to riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS if:

A. project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 2.5-4, excluding those without a mitigation ratio) on or off the project site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No de minimus standard is specified under which an impact would not be significant; however, minor impacts to native or naturalized habitat that is providing essentially no biological habitat or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant. For example, an impact to native or naturalized upland habitat under 0.1-acre in an existing urban setting may be considered less than significant (depending on a number of factors). An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence of habitat type in project vicinity, its condition and size, presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Just because a particular habitat area is isolated, for example, does not necessarily mean that impacts to the area would not be significant (e.g. vernal pools). An area that is disturbed or partially developed may provide a habitat "island" that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG, and the County: 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 or infrastructure; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

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

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

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

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

laws and regulations (such as the Endangered Species Act) that require greater wetland buffer widths.

Analysis

Direct Impacts

The project would have direct impacts to riparian habitat and sensitive natural communities (see Tables 2.5-1 to 2.5-4) due to road crossings and general grading on- and off-site. Anticipated impacts would remove vegetation during the grading of the project and would result in the placement of fill, structures, road crossings, culverts and other infrastructure (e.g., utility lines) in riparian habitat and sensitive natural communities. The proposed trails would be within the development area, existing dirt roads, or existing paths. Proposed sewer lines and associated pump stations would be located outside of the biological open space, within proposed roadways, or hung along a pedestrian bridge. Thus, the proposed sewer and trails improvements would not result in additional impacts beyond those identified for the road crossings and grading.

On-site riparian habitat and sensitive natural communities impacted by the project include the following: coast live oak woodland (0.3 acre), coastal sage scrub (17.0 acres), disturbed coastal sage scrub (2.6 acres), disturbed coastal/valley freshwater marsh (0.1 acre), southern coast live oak riparian woodland (1.1 acres), disturbed southern coast live oak riparian woodland (0.5 acre), southern mixed chaparral (49.4 acres), disturbed southern mixed chaparral (4.9 acres), southern willow riparian woodland (0.5 acre), southern willow scrub (0.3 acre), disturbed southern willow scrub (0.3 acre), mule fat scrub (0.1 acre), open water (0.5 acre), and disturbed wetland (0.01 acre). Off-site impacts include coastal sage scrub (0.1 acre). These impacts to riparian habitat and sensitive natural communities would be considered **significant (Impact BIO-2)**.

Indirect Impacts

The existing on-site riparian habitat areas would be retained in open space (see Figures 2.5-3a-c). These riparian habitat areas are narrow and mostly surrounded by development except along the western and southern boundary of the project site. Sources of indirect impacts to these sensitive habitat areas would result from increased human access, potential increases in predation/competition on native wildlife from domestic animals, potential increases in invasive plant species or other domestic pests, alterations to natural drainage patterns, potential noise effects, and potential effects on wildlife species due to increases in night time lighting. Sensitive riparian bird species may be the most affected by these edge effects. Habitat quality, functions, and values would likely decrease also. The project includes a minimum 50-foot wetland buffer (discussed further below), permanent fencing/walls where lots are adjacent to open space and at trail heads and staging areas, signage every 200 feet on trails along or in open space, and 100-foot limited building zones around open space areas to reduce these edge effects. The project would also include compliance with lighting, water quality/hydrology, noise, and other regulations that would reduce indirect impacts to open space. Therefore, the potential indirect impacts to sensitive habitat areas within project open space would be considered **less than significant**.

A 50-foot buffer is adequate for the protection of the majority of the on-site wetlands because the existing habitats are narrow and have functions and values that have been affected by agricultural activities. The wetland areas where the riparian habitat is of higher quality (i.e., along the western boundary and southern portions of the site) generally would have buffers that exceed 50 feet to better protect the function and value of the preserved wetland.

The project would continue to pump groundwater. The groundwater extraction rates for the project would not exceed the current rates of extraction for agricultural uses (Wiedlin & Associates, Inc. 2013). The nine active wells extract water from depths ranging from 110 feet to 1,210 feet, well below the surface groundwater depths used by the riparian plant species. In addition, the proposed application of 700 acre-feet of recycled water, potable water, and groundwater over the site has the potential to increase the groundwater recharge rate over the existing condition. Based on the proposed level of extract and potential recharge, no impacts to groundwater-dependent habitat are anticipated for this project.

Overall, the project would have a **less than significant** indirect impact to riparian habitat and sensitive natural communities.

2.5.2.3 Issue 3: Jurisdictional Waters and Waterways

Guidelines for the Determination of Significance

Based on the County's Guidelines for Determining Significance – Biological Resources, adopted September 15, 2010, the project may have a significant impact to federally, state, or local protected wetlands and waters as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.), Section 1600 of the Fish and Game Code, and/or the County RPO if it would result in the direct removal, filling, hydrological interruption or other impacts of such jurisdictional waters and waterways.

Analysis

Direct Impacts

The project would impact jurisdictional waters, including wetlands, under the jurisdiction of the ACOE (waters of the U.S.), CDFG/RWQCB (waters of the state), and County (RPO wetlands) through grading (fill) activities and construction of road crossings and culverts (see Figures 2.5-3a–d). Proposed trails and sewer lines would be located outside of jurisdictional waters or incorporated into the road crossings and culverts so no additional impacts would result. As indicated in Table 2.5-2, the project would impact 4.22 acres (2.92 acres of non-wetland waters and 1.30 acres of wetlands) of the 18.13 acres of ACOE jurisdictional area on-site. CDFG/RWQCB jurisdictional area impacts would be 6.55 acres (3.1 acres of streambed and 3.45 acres of wetlands) of the total 43.52 acres on-site. The project would impact 2.23 acres of the 37.64 acres of County wetlands located on-site. These impacts to jurisdictional habitat would be **significant (Impact BIO-3)**. As required, the project would obtain a CWA Section 404 permit, CWA Section 401 certification, and Fish and Game Code Section 1602 Streambed Alteration Agreement.

Indirect Impacts

The jurisdictional areas preserved by the project would potentially be impacted indirectly. Sources of indirect impacts would be from potential increased human access, increases in predation/competition on native wildlife from domestic animals, increases in invasive plant species or other domestic pests, alterations to natural drainage patterns, noise effects, and effects on wildlife species due to increases in night time lighting. There would also be temporary indirect impacts as a result of access during project construction. Wildlife species supported by these waterways may be the most affected by these edge effects. Riparian and wetland habitat quality, functions, and values may also decrease due to edge effects. To reduce these edge effects, the project includes wetland buffers, a limited building zone easement, fencing, and compliance with lighting, noise, landscaping, and water quality/hydrology regulations. Proposed buffers would be a minimum of 50 feet wide, with some widths exceeding 100 feet. The majority of the on-site wetlands have reduced functions and values due to surrounding agricultural activities. The wetland areas where the riparian habitat is of higher quality (i.e., along the western boundary and southern portions of the site) would have buffers that exceed 50 feet to better protect the function and value of the preserved wetland. The potential indirect impacts to sensitive habitat areas within project open space would be considered **less than significant**.

2.5.2.4 Issue 4: Wildlife Movement and Nursery Sites

Guidelines for the Determination of Significance

Based on the County's Guidelines for Determining Significance – Biological Resources, adopted September 15, 2010, the project may have a significant impact to movement of a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites if:

- A. The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
- B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges would be required to provide connectivity. Wildlife underpasses shall have dimensions (length, width, height) suitable for passage by the affected species based on a site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant roadkill or interference with an existing wildlife corridor/linkage.
- C. The project would create artificial wildlife corridors that do not follow natural movement patterns. For example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.
- D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography and adjacent land uses. Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer and other large animals should reach rim-to-rim along drainages.

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

Analysis

Wildlife Movement

The development of the project site would reduce the relatively large patches of southern mixed chaparral in the project area and increase fragmentation of the southern coast live oak riparian woodlands that form blocks of native vegetation between regional habitat linkages to the north, south, and west. These impacts would reduce suitable habitat on-site that supports local populations of plant and wildlife species, and they would reduce any potential natural upland habitat “stepping stone” connections for wildlife that can migrate between the larger regional connections. The local wildlife corridors identified on-site are not recognized as important regional linkages in the draft North County MSCP. Impacts to the local wildlife corridors on-site would reduce any secondary corridor connections between the identified regional linkages to the north (Keys Canyon), south (Moosa Creek), and west (I-15 Escondido–Temecula), but local connections would remain along the larger drainage courses not impacted by the project. Proposed off-site improvements would have minimal impacts to the draft PAMA area along I-15, as the improvements would be to existing roads and would not significantly reduce the regional corridor or linkages.

No barriers would be created that would isolate portions of the riparian habitat within the local wildlife movement corridors from breeding or foraging habitat, or prevent access to water sources necessary for reproduction. The project has been designed to avoid direct impacts to the majority of the riparian habitat along the local wildlife movement corridors on the drainages within the project site, and provide a minimum 50-foot buffer to reduce the potential for edge effects on wildlife use of these movement corridors. No significant impacts to wildlife access to foraging or breeding habitat or water sources necessary for reproduction would occur.

The project would not impact the connectivity of blocks of habitat within regional wildlife corridors or linkages. Impacts to the local wildlife corridors and linkages along the major drainage courses that support riparian habitat have been minimized to road crossings. The proposed minimum 50-foot buffer, in addition to limited building zones adjacent to the buffer, would reduce the potential for indirect edge effects. The movement of

wildlife, including large animal movement through the project site, can continue along the drainage courses as vegetation cover would be sufficient to provide shelter and cover during movement. Culverts at the roads crossing the local movement corridors would range in size from 18 inches to 54 inches, depending on the particular drainage course. The culverts would be sufficient to allow small walking animals to avoid roads, while larger walking animals would need to pass around the smaller culverts.

The project would not create an artificial wildlife corridor. Existing local wildlife corridors along the major drainage courses would be preserved and only impacted by road crossings.

The project has been designed to reduce noise and nighttime lighting to levels that would not significantly impact local wildlife behavior. Lighting adjacent to on-site biological open space areas would be shielded and directed away from the surrounding habitat. Noise would not be sustained at levels that would disrupt wildlife movement during construction through breeding season noise restrictions or general post-project conditions through establishment of buffers and limit building zones.

The project would not impact regional wildlife corridor or linkage widths. Minor impacts within regional wildlife corridor/linkage along the I-15 freeway due to the widening of existing roads would not affect the widths of these existing areas. The widths of local wildlife corridors along the major drainage courses would be preserved in biological open space with little impact to their existing widths. The proposed minimum 50-foot buffer around the biological open space would help preserve the existing widths of the local wildlife corridor/linkage.

The project would not impact the visual continuity of any regional wildlife corridor or linkage. Local wildlife corridors/linkages being preserved on-site would be set back from the adjacent development by a wetland buffer and limited building zones that would reduce the potential for any significant indirect impacts and maintain the visual continuity of these local corridors. Overall, the project impact to localized wildlife movement is considered **less than significant**.

Nursery Sites

The project site does not support nursery sites for wildlife and would have **no impact** to nursery sites.

2.5.2.5 Issues 5 and 6: Local Policies, Ordinances, Adopted Plans

Guidelines for the Determination of Significance

Based on the County's Guidelines for Determining Significance – Biological Resources, adopted September 15, 2010, the project may have a significant impact related to a conflict with a local policy, ordinance, or habitat conservation plan protecting biological resources (such as a tree preservation policy or ordinance, adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan) if:

- A. For lands outside of the MSCP, the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Process Guidelines.
- B. The project would preclude or prevent the preparation of the subregional NCCP Process. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.
- C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the RPO.
- D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Process Guidelines.
- E. 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 regional planning effort.
- F. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Process Guidelines.
- G. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.
- H. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
- I. The project would reduce the likelihood of survival and recovery of listed species in the wild.
- J. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).
- K. The project would result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

Analysis

NCCP

As detailed in subchapter 2.5.2.2, the project would result in impacts to coastal sage scrub. In accordance with the NCCP, the project would obtain an HLP. The proposed mitigation for impacts to coastal sage scrub habitat would be in accordance with Section 4.13 of the NCCP process guidelines. Mitigation for all project impacts to coastal sage scrub would be accomplished by the off-site preservation of coastal sage scrub habitat at a 2:1 ratio within a proposed future PAMA area. The project would not have impacts to any narrow endemic species or to any core populations of any narrow endemic species identified in the MSCP. Thus, project impacts related to the NCCP would be **less than significant**.

Subregional NCCPs

The coastal sage scrub habitat on-site and off-site does not support any sensitive species. The loss of coastal sage scrub habitat due to project impacts would not isolate the remaining habitats from other natural resources or habitats required for the preparation of a subregional NCCP plan as the project site is not in a high biological habitat value core area, and off-site impacts to the draft PAMA area would be minimal, being confined to existing road right-of ways. These losses of habitat would not preclude or prevent the preparation of the subregional NCCP for this part of San Diego County. The project would be consistent with the Subregional NCCP and would result in a **less than significant** impact.

RPO Wetlands and Sensitive Habitat Lands

As discussed in subchapter 2.5.2.3, the project would have impacts to RPO wetlands. An analysis of the required findings to allow crossings of RPO wetlands was prepared for the on-site crossing impact locations (see Appendix G). This analysis concludes that the proposed crossings meet the findings necessary to allow the impacts through impact avoidance and minimization by placing the proposed crossings where RPO wetlands are narrow, disturbed, and at existing roads. Further, the findings show that there is the potential to eliminate crossings of RPO wetlands from future adjacent development projects, and that the impacts to RPO wetlands will be mitigated per County requirements. Therefore, the project would have a **less than significant impact** related to the RPO.

Biological Mitigation Ordinance

As indicated above, the project site is not located in a BRCA, is not a substantial habitat linkage, and does not include narrow endemic species. The proposed mitigation, including sensitive habitat mitigation ratios (see Table 2.5-1), would be in compliance with the BMO. The project would have **no impact** related to the BMO.

Migratory Bird Treaty Act

The project would comply with the MBTA requirements and would include either construction outside of the breeding season or the completion of pre-construction nest surveys and active nest avoidance until the young have fledged. Refer to Table 1-3 Project Design Considerations in subchapter 1.2.2 for more details. Thus, the project would have a **less than significant** impact to migratory birds.

Bald and Golden Eagle Protection Act

No bald or golden eagles were observed using the project area. The project site does not contain suitable nesting habitat for bald or golden eagle. Therefore, **no impacts** to these species of eagle are anticipated to occur.

2.5.3 Cumulative Impact Analysis

Cumulative impacts from the project were evaluated with regards to past, present, and future projects within the local area. Eight projects in the localized vicinity were identified for the evaluation of cumulative impacts (see Table 1-5 and Figure 1-22). All eight of

these projects are within the draft North County MSCP area but are outside of any draft PAMA areas.

2.5.3.1 Special Status Species

The direct and indirect impacts presented above in subchapter 2.5.2.1 for special status species would add to the cumulative impacts to these species primarily through habitat loss and to a lesser extent through the potential loss of individuals of these species that occur on-site. Thus, cumulative impacts to special status species would be potentially significant for habitat loss, but not expected to significantly add to the cumulative losses of individuals. As the project would comply with habitat mitigation requirements (e.g., NCCP, HLP, BMO, and County Biological Guidelines) for these special status species habitat impacts, the project's contribution to cumulative special status species impacts would be **less than significant**.

2.5.3.2 Riparian Habitat or Sensitive Natural Communities

Direct and indirect impacts to riparian and natural communities on-site would contribute to the cumulative loss of these vegetation types in San Diego County. The eight local cumulative projects are located on agricultural lands (e.g., orchards, row crops) and would result in little to no impacts to native upland or riparian habitats. Cumulative impacts to riparian areas and sensitive natural communities would be considered less than significant, as the project riparian mitigation would be consistent with RPO, NCCP, HLP, BMO, and County Biological Guidelines, and these plans and regulations are designed such that significant cumulative County impacts would be **less than significant**.

2.5.3.3 Jurisdictional Waters and Waterways

The direct and indirect impacts to federal, state, and County jurisdictional waters and wetlands from the project would add to the cumulative loss of jurisdictional waters and wetlands in the County of San Diego. As indicated above, the eight local cumulative projects are located on agricultural lands (e.g., orchards, row crops), and impacts to jurisdictional habitats is expected to be minimal and mitigated in accordance with regulation requirements. As the project would mitigate impacts to jurisdictional areas in accordance with the wildlife agency requirements, the project's contribution to this cumulative impact would be **less than significant**.

2.5.3.4 Wildlife Movement and Nursery Sites

Direct and indirect impacts to wildlife movement corridors on the project site would generally contribute to the cumulative impacts to local wildlife movement. These cumulative impacts would not be substantial enough to adversely affect any of the core wildlife movement corridors or linkages identified in this portion of northern San Diego County. None of the projects within the cumulative impact area of analysis would contribute impacts to any regional or local wildlife corridors or linkages. Preservation of the local wildlife corridors along the major drainage courses in the project area would continue to provide for secondary linkages to more important wildlife corridors off-site. Wetland buffers of a minimum of 50 feet will be established to reduce edge effects and maintain wildlife movement. Therefore, the project's contribution to cumulative impacts to wildlife movement corridors would be **less than significant**.

2.5.3.5 Local Policies, Ordinances, Adopted Plans

The project would comply with local policies, ordinances, and adopted plans to ensure that impacts to biological resources are avoided, minimized, and mitigated according to guidelines established by these regulations. The project would have a **less than significant** cumulative impact related to compliance with applicable policies, ordinances and plans.

2.5.4 Significance of Impacts Prior to Mitigation

The following significant impacts related to biological resources would occur with project implementation:

Impact BIO-1: The project would impact more than 5 percent of the raptor foraging habitat on-site, and therefore the project raptor foraging impact would be significant.

Impact BIO-2: The project would have direct impacts to riparian habitat and sensitive natural communities, consisting of the following: coast live oak woodland (0.3 acre), coastal sage scrub (17.0 acres), disturbed coastal sage scrub (2.6 acres), disturbed coastal/valley freshwater marsh (0.1 acre), southern coast live oak riparian woodland (1.1 acres), disturbed southern coast live oak riparian woodland (0.5 acre), southern mixed chaparral (49.4 acres), disturbed southern mixed chaparral (4.9 acres), southern willow riparian woodland (0.5 acre), southern willow scrub (0.3 acre), disturbed southern willow scrub (0.3 acre), open water (0.5 acre), and disturbed wetland (0.01 acre). Off-site impacts include coastal sage scrub (0.1 acre). As the project construction would occur in five phases, the impacts would occur in phases (see Table 2.5-4). These impacts to riparian habitat and sensitive natural communities would be considered significant.

Impact BIO-3: The project would impact jurisdictional waters, including 4.22 acres (2.92 acres of non-wetland waters and 1.30 acres of wetlands) of ACOE jurisdictional area, 6.55 acres (3.1 acres of streambed and 3.45 acres of wetlands) of CDFG/RWQCB jurisdictional area, and 2.23 acres of County wetlands located on-site. These direct impacts to riparian habitat would be significant.

2.5.5 Mitigation

2.5.5.1 Special Status Species and Riparian Habitat or Sensitive Natural Communities

As the project is phased, habitat mitigation identified below and in Table 2.5-5a-e is separated into phases. Open space dedication is phased to include adjacent open space areas in the phase of development that borders the phase under construction. Raptor foraging impacts (**Impact BIO-1**), and riparian and sensitive natural communities impacts (**Impact BIO-2**) and would be mitigated through the following:

M-BIO-1a: Prior to issuance of a grading permit for Phase 1, the following shall be provided either on-site within the open space easement; off-site within a draft PAMA of the draft North County MSCP in Valley Center or adjacent communities; or through a mitigation bank, subject to the approval of the County and appropriate wildlife agencies:

1. Impacts to 9.8 acres of coastal sage scrub (including disturbed) shall be mitigated at a 2:1 ratio with 19.6 acres.
2. Impacts to 0.1 acre of disturbed coastal/valley freshwater marsh shall be mitigated at a 3:1 ratio with 0.3 acre.
3. Impacts to 0.5 acre of southern coast live oak riparian woodland shall be mitigated at a 3:1 ratio with 1.5 acres.
4. Impacts to 0.5 acre of southern mixed chaparral shall be mitigated at a 0.5 to 1 ratio with 0.3 acre.
5. Impacts to 0.5 acre of southern willow riparian woodland shall be mitigated at a 3:1 ratio with 1.5 acres.

M-BIO-1b: Prior to issuance of a grading permit for Phase 2, the following shall be provided either on-site within the open space easement; off-site within a draft PAMA of the draft North County MSCP in Valley Center or adjacent communities; or through a mitigation bank, subject to the approval of the County and appropriate wildlife agencies:

1. Impacts to 6.8 acres of coastal sage scrub (including disturbed) shall be mitigated at a 2:1 ratio with 13.36 acres.
2. Impacts to 0.2 acre of southern coast live oak riparian woodland shall be mitigated at a 3:1 ratio with 0.6 acre.
3. Impacts to 0.3 acre of open water shall be mitigated at a 3:1 ratio with 0.9 acre.

M-BIO-1c: Prior to issuance of a grading permit for Phase 3, the following shall be provided either on-site within the open space easement; off-site within a draft PAMA of the draft North County MSCP in Valley Center or adjacent communities; or through a mitigation bank, subject to the approval of the County and appropriate wildlife agencies:

1. Impacts to 0.3 acre of coast live oak woodland shall be mitigated at a 3:1 ratio with 0.9 acre.
2. Impacts to 3.0 acres of coastal sage scrub (including disturbed) shall be mitigated at a 2:1 ratio with 6.0 acres.
3. Impacts to 0.8 acre of southern coast live oak riparian woodland (including disturbed) shall be mitigated at a 3:1 ratio with 2.4 acres.
4. Impacts to 53.8 acres of southern mixed chaparral (including disturbed) shall be mitigated at a 0.5 to 1 ratio with 26.9 acres.
5. Impacts to 0.3 acre of southern willow scrub (including disturbed) shall be mitigated at a 3:1 ratio with 0.9 acre.
6. Impacts to 0.1 acre of mule fat scrub (including disturbed) shall be mitigated at a 3:1 ratio with 0.3 acre.

- M-BIO-1d:** Prior to issuance of a grading permit for Phase 4, the following shall be provided either on-site within the open space easement; off-site within a draft PAMA of the draft North County MSCP in Valley Center or adjacent communities; or through a mitigation bank, subject to the approval of the County and appropriate wildlife agencies:
1. Impacts to 0.1 acre of southern coast live oak riparian woodland shall be mitigated at a 3:1 ratio with 0.3 acre.
 2. Impacts to 0.1 acre of disturbed southern willow scrub shall be mitigated at a 3:1 ratio with 0.3 acre.
 3. Impacts to 0.1 acre of disturbed wetland shall be mitigated at a 3:1 ratio with 0.3 acre.
- M-BIO-1e:** Prior to issuance of a grading permit for Phase 5, the following shall be provided either on-site within the open space easement; off-site within a draft PAMA of the draft North County MSCP in Valley Center or adjacent communities; or through a mitigation bank, subject to the approval of the County and appropriate wildlife agencies:
1. Impacts to 0.2 acre of southern willow scrub shall be mitigated at a 3:1 ratio with 0.6 acre.
 2. Impacts to 0.2 acre of open water shall be mitigated at a 3:1 ratio with 0.6 acre.
- M-BIO-1f:** Prior to issuance of a grading permit for off-site improvements, the following shall be provided either on-site within the open space easement; off-site within a draft PAMA of the draft North County MSCP in Valley Center or adjacent communities; or through a mitigation bank, subject to the approval of the County and appropriate wildlife agencies:
1. Impacts to 0.1 acres of coastal sage scrub shall be mitigated at a 2:1 ratio with 0.2 acre.
- M-BIO-2:** A Resource Management Plan (RMP) shall be prepared by a qualified biologist prior to the issuance of grading permits to address any restoration, enhancement, and maintenance of open space. The report shall address the location of the mitigation sites within the project site and off-site, site preparation, irrigation system requirements, plant palettes, installation procedure, and describe the maintenance and monitoring program for both the establishment mitigation areas and the enhancement mitigation areas. The proposed open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Maintenance responsibilities shall be provided by an entity approved by the County and funding shall be provided through an endowment, Community Facility District or other finance mechanism approved by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. The management goals for the on-site biological open space shall include the following:

1. Preserve and manage the open space lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the RMP land.
2. Manage the land for the benefit of sensitive plant and wildlife species and existing natural communities, without substantive efforts to alter or restrict the natural course of habitat development and dynamics.
3. Reduce, control, and where feasible, eradicate non-native, invasive flora and/or fauna known to be detrimental to native species and/or the local ecosystem.
4. Maintain the character and function of certain agricultural areas within the wetland buffer and open space area.

The Resource Manager shall be responsible for interpreting the results of site monitoring to determine the ongoing success of the RMP. If it is necessary to modify the plan between regularly scheduled updates, plan changes shall be submitted to the County and agencies for approval as required.

2.5.5.2 Jurisdictional Waters and Waterways

Jurisdictional waters impacts (**Impact BIO-3**) would be mitigated by M-BIO-3 and M-BIO-4 as follows:

M-BIO-3: Prior to the issuance of grading permits, wetland impacts shall be mitigated at a ratio of 3:1, consisting of on-site preservation, enhancement, and/or creation of wetlands. Mitigation of wetlands shall include a 1:1 creation component to ensure no net loss of wetlands. Non-wetland waters and streambed shall be mitigated at a 1:1 ratio consisting of preservation/enhancement. Mitigation measures for impacts to ACOE, CDFG/RWQCB, and County RPO wetlands are listed as follows:

1. ACOE jurisdiction: On-site permanent impacts to 2.92 acres on-site non-wetland waters of the US shall be mitigated with the preservation/enhancement of 2.92 acres. Permanent impacts to 1.30 acres of wetlands on-site shall be mitigated at a 3:1 ratio with 3.9 acres of ACOE jurisdictional wetlands enhancement/preservation/creation (1:1 creation component).
2. CDFG/RWQCB jurisdiction: On-site permanent impacts to 3.1 acres on-site streambed shall be mitigated with the preservation/enhancement of 3.1 acres of streambed. Permanent impacts to 3.45 acres of state wetlands on-site shall be mitigated at a 3:1 ratio with 10.35 acres of CDFG/RWQCB jurisdictional state wetlands enhancement/preservation/creation (1:1 creation component).
3. County RPO jurisdiction: Permanent impacts to 2.23 acres of RPO wetlands on-site shall be mitigated at a 3:1 ratio with 6.69 acres of RPO wetlands enhancement/preservation/creation (1:1 creation component).

Impacts to jurisdictional resources are not additive; therefore, mitigation for impacts to CDFG/RWQCB jurisdictional area fulfills the mitigation

requirements for impacts to ACOE jurisdictional and County wetlands. Ultimately, the jurisdictional waters/wetland mitigation shall proceed in accordance with the permit and certification requirements of the ACOE, CDFG/RWQCB, and County.

M-BIO-4: A Revegetation Plan shall be prepared by a qualified biologist to address the mitigation identified in M-BIO-3 and the wildlife agency permits. The ACOE, CDFG/RWQCB, and County shall review and approve the Revegetation Plan prior to the issuance of wetland permits and grading permits. Success criteria shall be the following, at a minimum:

1. 80 percent transplant/container plant survival in year 1;
2. 100 percent transplant/container plant survival in year 2 with 50 percent native cover, 50 percent diversity and 50 percent density;
3. 100 percent transplant/container plant survival in year 3 with 60 percent native cover, 60 percent diversity and 60 percent density;
4. 100 percent transplant/container plant survival in year 4; with 75 percent native cover, 70 percent diversity and 70 percent density;
5. 100 percent transplant/container plant survival in year 5 with 80 percent native cover, 70 percent diversity and 70 percent density; and
6. The wetland revegetation areas must sustain themselves for a minimum of one year (meeting the fifth-year performance standards) in the absence of significant maintenance measures.
7. The cover of non-native annuals and herbs, as identified by the project biologist, will be no more than 10 percent by the end of the five-year monitoring period. No invasive exotic perennials on the Cal-IPC lists A and B will be permitted on the revegetation sites by the end of the five-year monitoring period.
8. If the success criteria/performance standards are not achieved at the end of each year of monitoring or by the end of the fifth year, the owner/project proponent will consult with the County of San Diego to develop appropriate remedial measures. Remedial measures may involve actions such as replanting areas, continued weed control, or finding alternative revegetation sites.

2.5.5.3 *Wildlife Movement and Nursery Sites*

Project impacts to wildlife movement and nursery sites would be less than significant and no mitigation is required.

2.5.5.4 *Local Policies, Ordinances, Adopted Plans*

The project would comply with local policies, ordinances, and adopted plans, and no mitigation is required.

2.5.6 Conclusion

2.5.6.1 *Special Status Species*

The project would directly impact one sensitive plant species; prostrate spineflower. Impacts to approximately 100 individuals of prostrate spineflower would be less than significant since this population is not regionally significant. Indirect impacts to prostrate spineflower, southwestern spiny rush, and Engelmann oaks would be less than significant considering the on-site populations would not be regionally significant and the number of individuals remaining after construction would be low.

The project would impact the following 13 Group 1 or federal/state species of special concern species: red diamond rattlesnake, coastal western whiptail, orange-throated whiptail, coast horned lizard, turkey vulture, western bluebird, white-tailed kite, Cooper's hawk, yellow warbler, yellow-breasted chat, San Diego black-tailed jackrabbit, and southern mule deer. Direct impacts to these sensitive species would be less than significant given the wide range of the species and that the project site does not contain a regionally significant population of these species. Indirect edge effect impacts (i.e., noise, lighting, invasive plants, grading encroachments, etc.) to these sensitive wildlife species would be less than significant considering the number of individuals of each species to remain after implementation of the project would be low.

The project site includes habitat suitable for raptor nesting and foraging. The project would comply with Fish and Game Code Section 3503 that protects raptor nesting through completing construction outside of the raptor breeding season (January 15-July 15) or conducting preconstruction nesting raptor surveys and completing avoidance measures, as necessary (see Table 1-3 in subchapter 1.2.2, Technical, Economic, and Environmental Characteristics). As such, raptor nesting impacts would be less than significant.

The project would impact more than 5 percent of the raptor foraging habitat on-site, and therefore the project raptor foraging impact would be significant (Impact BIO-1). To mitigate this habitat impact, the project would provide habitat mitigation as described in mitigation measure M-BIO-1 and M-BIO-2. These measures would effectively reduce these impacts because they would provide for the preservation of raptor foraging habitat in perpetuity, either on- and/or off-site. M-BIO-2 assures the adequacy of the on- and off-site locations of the preserved mitigation sites. Implementation of these mitigation measures would reduce the significant project raptor foraging habitat impact to below a level of significance. The project would not impact arroyo toad, golden eagles, burrowing owls, cactus wren, Hermes copper butterflies, or the viability of any core wildlife area. As such, the project would have no impact to these biological resources.

As the project would comply with habitat mitigation requirements (e.g., RPO, NCCP, HLP, BMO, and County Biological Guidelines) for these special status species habitat impacts, the project's cumulative special status species impacts would be less than significant.

2.5.6.2 *Riparian Habitat or Sensitive Natural Communities*

The project would have direct impacts to riparian habitat, consisting of the following: coast live oak woodland (0.3 acre), coastal sage scrub (10.0 acres), disturbed coastal

sage scrub (2.6 acres), disturbed coastal/valley freshwater marsh (0.1 acre), southern coast live oak riparian woodland (1.1 acres), disturbed southern coast live oak riparian woodland (0.5 acre), southern mixed chaparral (49.4 acres), disturbed southern mixed chaparral (4.9 acres), southern willow riparian woodland (0.5 acre), southern willow scrub (0.3 acre), disturbed southern willow scrub (0.3 acre), mule fat scrub (0.1 acre), and open water (0.5 acre). Off-site impacts include coastal sage scrub (0.1 acre). These impacts to riparian habitat would be significant (Impact BIO-2).

Mitigation measure M-BIO-1 requires the preservation/enhancement/creation of impacted riparian habitat and sensitive natural communities at the ratios required by the County Biological Guidelines. This mitigation measure would effectively reduce significant impacts to riparian and sensitive habitats through the adequate preservation of impacted habitat-type on- and/or off-site. The amount of preserved acreages are based on mitigation ratios designed to provide adequate preservation of each habitat type within the unincorporated County and to comply with the federal ESA, state Endangered Species Act, and state Natural Communities Conservation Planning Act. Mitigation for impacts to upland natural communities (e.g., coast live oak woodland, coastal sage scrub, southern mixed chaparral) would be achieved through the purchase and conservation of off-site habitat within future PAMA lands. Wetland impacts would be mitigated on-site and off-site within future PAMA lands, as described below. As required by mitigation measure M-BIO-2, resource management plan(s) for conserved lands on-site and off-site associated with the project mitigation would provide for the preservation and long-term maintenance of these lands. A Conceptual RMP has been drafted for each the on-site open space and off-site mitigation areas, and are included as Attachments 17 and 18 to Appendix G. Implementation of these mitigation measures would reduce the project impact to riparian habitat and sensitive natural communities to below a level of significance.

The project would preserve sensitive habitats on-site, which could be indirectly impacted from increased human access, potential increases in predation/competition on native wildlife from domestic animals, potential increases in invasive plant species or other domestic pests, alterations to natural drainage patterns, potential noise effects, and potential effects on wildlife species due to increases in night time lighting caused by the project. The project would comply with lighting, bird nesting (MBTA, and Fish and Game Code), landscaping, fencing (temporary and permanent), signage, and water quality/hydrology regulations. Noise impacts would be minimized by restrictions on construction activities during the sensitive avian breeding season or through the use of adequate noise attenuation measures. Any lighting adjacent to biological open space areas will be shielded and directed away from the habitat areas to reduce light pollution. Landscape plans for areas adjacent to biological open space areas will contain native plant species to reduce the potential for invasive species to disperse to the open space. Any storm water runoff from the project entering the drainages will be treated according to storm water pollution standards prior to discharge into any open space areas. The potential indirect impacts to sensitive habitat areas would also be avoided through project features, including 50-foot minimum wetland buffers, signage and fencing, 100-foot limited building zones, and a resource management plan. Refer to Table 1-3 in subchapter 1.2.2. Thus, indirect impacts to riparian habitat and sensitive natural communities would be less than significant.

Project impacts to riparian and natural communities on-site would contribute to the cumulative loss of these vegetation types in San Diego County. Cumulative impacts to

riparian and sensitive communities on-site would be less than significant because the project mitigation would be in compliance with the RPO, NCCP, HLP, BMO, and County Biological Guidelines.

2.5.6.3 Jurisdictional Waters and Waterways

The project would impact a total of 6.55 acres of jurisdictional resources, including 4.22 acres (2.92 acres of non-wetland waters and 1.30 acres of wetlands) of ACOE jurisdictional area, 6.55 acres (3.1 acres of streambed and 3.45 acres of wetlands) of CDFG/RWQCB jurisdictional area, and 2.23 acres of County wetlands located on-site. These direct impacts to riparian habitat would be significant (Impact BIO-3).

To reduce the project jurisdictional waters Impact BIO-3, the project would implement mitigation measures M-BIO-2, M-BIO-3, and M-BIO-4. These mitigation measures would effectively reduce significant impacts to jurisdictional waters through a combination of on-site/off-site wetland establishment (creation) and the restoration/enhancement of on-site wetland areas through the removal of non-native invasive plant species within biological open space. Impacts to jurisdictional resources are not additive; therefore, mitigation for impacts to CDFG/RWQCB jurisdictional area fulfills the mitigation requirements for impacts to ACOE jurisdictional and County wetlands. Potential on-site wetland mitigation may provide up to 6 acres of creation and 12 acres of restoration/enhancement mitigation. Non-wetland/streambed mitigation would be provided through preservation. Pursuant to M-BIO-4, a Conceptual Revegetation Plan has been drafted and is included as an attachment to Appendix G. Ultimately, the proposed jurisdictional mitigation areas would be subject to the RMPs (see Attachments 17 and 18 of Appendix G) to ensure ongoing preservation. The project would proceed in accordance with the ACOE Clean Water Act Section 404 permit, RWQCB Clean Water Act Section 401 Certification, and a CDFG Fish and Game Code Section 1600 Streambed Alteration Agreement. Implementation of these mitigation measures would reduce the project impact to jurisdictional areas to below a level of significance.

Indirect impacts, as described above under riparian habitat and sensitive natural communities, would be less than significant considering compliance with regulations and project features such as minimum 50-foot wetland buffers and 100-foot limited building zones (see Table 1-3 in subchapter 1.2.2, Technical, Economic, and Environmental Characteristics). As the project would mitigate impacts to jurisdictional areas in accordance with the wildlife agency requirements and local regulations and plans, the project's contribution to this cumulative impact would be less than significant.

2.5.6.4 Wildlife Movement and Nursery Sites

The site does not contain regionally significant wildlife linkages. The development of the project site would reduce local wildlife linkages, but would continue to provide localized linkages between the identified regional linkages to the north (Keys Canyon), south (Moosa Creek), and west (I-15 Escondido–Temecula). Overall, the project impact to wildlife movement is considered less than significant.

The project site does not support nursery sites for wildlife and would have no impact to nursery sites.

2.5.6.5 Local Policies, Ordinances, Adopted Plans

The project would comply with the RPO, NCCP, federal ESA and California Endangered Species Act, BMO, MBTA, and Bald and Golden Eagle Protection Act. Thus, the project would have a less than significant impact related to these local policies, ordinances, and adopted plans.

**TABLE 2.5-1
ON-SITE HABITAT AND VEGETATION COMMUNITIES**

Habitat/Vegetation Community	RPO Sensitive Habitat	Existing (acres)	Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Coast live oak woodland	-	3.6	0.3	3:1	1.2
Coastal sage scrub	-*	19.6	17.0	2:1	34.0
Disturbed coastal sage scrub	-*	2.9	2.6	2:1	5.2
Disturbed coastal/valley freshwater marsh	X	0.6	0.1	3:1	0.3
Eucalyptus woodland	-	1.7	1.0	None	None
Southern coast live oak riparian woodland	X	22.5	1.1	3:1	3.3
Disturbed southern coast live oak woodland	X	1.9	0.5	3:1	1.5
Southern mixed chaparral	-*	75.4	49.4	0.5:1	24.7
Disturbed southern mixed chaparral	-*	6.0	4.9	0.5:1	2.6
Southern willow riparian woodland	X	4.7	0.5	3:1	1.2
Southern willow scrub	X	6.1	0.3	3:1	1.2
Disturbed southern willow scrub	X	0.3	0.3	3:1	0.9
Mule fat scrub	X	0.1	0.1	3:1	None
Open water – freshwater	X	0.5	0.5	3:1	1.5
Disturbed wetland	X	0.4	0.1	3:1	None
Extensive agriculture – row crops	-	90.5	85	None	None
Intensive agriculture – nursery	-	9.2	6.7	None	None
Vineyard	-	0.7	0.6	None	None
Orchard	-	291.9	276.8	None	None
Disturbed habitat	-	44.0	34.8	None	None
Developed	-	25.7	22.8	None	None
TOTAL		608.3	505.4	-	81.7

SOURCE: RECON 2013c.

X = RPO sensitive habitat;

* = RPO sensitive habitat only if it contains a sensitive species and/or meets certain criteria. Within the project site and off-site study area, this habitat does not meet the criteria to be considered RPO sensitive habitat.

**TABLE 2.5-2
OFF-SITE HABITAT AND VEGETATION COMMUNITIES**

Habitat/Vegetation Community	RPO Sensitive Habitat	Existing/ Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Coastal sage scrub	-*	0.1	1:1	0.1
Orchard	-	1.2	None	0
Disturbed habitat	-	2.4	None	0
Developed	-	21.1	None	0
TOTAL		24.8		0.1

SOURCE: RECON 2013c.

X=RPO sensitive habitat

*=RPO sensitive habitat only if it contains a sensitive species and/or meets certain criteria.

**TABLE 2.5-3
ON-SITE JURISDICTIONAL WATERS AND PROJECT IMPACTS**

Jurisdictional Waters	Existing (acres)	Impacts (acres)	Mitigation Ratio	Mitigation (acres)
ACOE Jurisdiction				
Non-wetland waters of the U.S.	4.69	2.92	1:1	2.92
Wetlands	13.44	1.30	3:1*	3.90
ACOE Total Jurisdiction	18.13	4.22		6.82
CDFG/RWQCB Jurisdiction				
Streambed	4.18	3.10	1:1	3.10
State Wetlands (riparian habitat)	39.35	3.45	3:1*	10.35
CDFG/RWQCB Total Jurisdiction	43.52	6.55		13.45
County of San Diego RPO Wetlands	37.64	2.23	3:1*	6.69

SOURCE: RECON 2013c.

*A minimum of 1:1 creation must be achieved while the remaining 2:1 of the ratio may be satisfied through restoration/enhancement of existing disturbed wetlands

**TABLE 2.5-4
SUMMARY OF DIRECT ON-SITE IMPACTS TO
HABITATS AND VEGETATION COMMUNITIES BY PROJECT PHASE**

Habitat/Vegetation Community	Existing (acres)	Phase 1 Impacts (acres)	Phase 2 Impacts (acres)	Phase 3 Impacts (acres)	Phase 4 Impacts (acres)	Phase 5 Impacts (acres)	Total Impacts (acres)
Coast live oak woodland	3.6	0	0	0.3	0	0	0.3
Coastal sage scrub	19.6	8.6	5.7	2.7	0	0	17
Disturbed coastal sage scrub	2.9	1.2	1.1	0.3	0	0	2.6
Disturbed coastal/valley freshwater marsh	0.6	0.1	0	0	0	0	0.1
Eucalyptus woodland	1.7	1.0	0	0	0	0	1
Southern coast live oak riparian woodland	22.5	0.5	0.2	0.3	0.1	0	1.1
Disturbed southern coast live oak riparian woodland	1.9	0	0	0.5	0	0	0.5
Southern mixed chaparral	75.4	0.5	0	48.9	0	0	49.4
Disturbed southern mixed chaparral	6.0	0	0	4.9	0	0	4.9
Southern willow riparian woodland	4.7	0.5	0	0	0	0	0.5
Southern willow scrub	6.1	0	0	0.1	0	0.2	0.3
Disturbed southern willow scrub	0.3	0	0	0.2	0.1	0	0.3
Mule fat scrub	0.1	0	0	0.1	0	0	0.1
Open water – fresh water	0.5	0	0.3	0	0	0.2	0.5
Disturbed wetland	0.4	0	0	0	0.1	0	0.1
Extensive agriculture – row crops	90.5	0	0	0	7.4	77.6	85
Intensive agriculture – nursery	9.2	1.4	4.6	0.7	0	0	6.7
Vineyard	0.7	0	0.6	0	0	0	0.6
Orchard	291.9	87.8	50.7	94.4	40.8	3.1	276.8
Disturbed habitat	44.0	2.2	6.5	14.1	3.4	8.6	34.8
Developed	25.7	4.8	2.7	7.4	1.5	6.4	22.8
TOTAL	608.3	108.6	72.4	174.9	53.4	96.1	505.4

SOURCE: RECON 2013c.

**TABLE 2.5-5a
PHASE 1 MITIGATION FOR ON-SITE IMPACTS TO
HABITATS AND VEGETATION COMMUNITIES**

Habitat/Vegetation Community	Phase 1 Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Coastal sage scrub	8.6	2:1	17.2
Disturbed coastal sage scrub	1.2	2:1	2.4
Disturbed coastal/valley freshwater marsh	0.1	3:1	0.3
Eucalyptus woodland	1.0	None	0
Southern coast live oak riparian woodland	0.5	3:1	1.5
Southern mixed chaparral	0.5	0.5:1	0.3
Southern willow riparian woodland	0.5	3:1	1.5
Intensive agriculture – nursery	1.4	None	0
Orchard	87.8	None	0
Disturbed habitat	2.2	None	0
Developed	4.8	None	0
TOTAL	108.6	-	23.2

SOURCE: RECON 2013c.

**TABLE 2.5-5b
PHASE 2 MITIGATION FOR ON-SITE IMPACTS TO
HABITATS AND VEGETATION COMMUNITIES**

Habitat/Vegetation Community	Phase 2 Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Coastal sage scrub	5.7	2:1	11.4
Disturbed coastal sage scrub	1.1	2:1	2.2
Southern coast live oak riparian woodland	0.2	3:1	0.6
Open water – fresh water	0.3	3:1	0.9
Intensive agriculture – nursery	4.6	None	0
Vineyard	0.6	None	0
Orchard	50.7	None	0
Disturbed habitat	6.5	None	0
Developed	2.7	None	0
TOTAL	72.4	-	15.1

SOURCE: RECON 2013c.

**TABLE 2.5-5c
PHASE 3 MITIGATION FOR ON-SITE IMPACTS TO
HABITATS AND VEGETATION COMMUNITIES**

Habitat/Vegetation Community	Phase 3 Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Coast live oak woodland	0.3	3:1	0.9
Coastal sage scrub	2.7	2:1	5.4
Disturbed coastal sage scrub	0.3	2:1	0.6
Southern coast live oak riparian woodland	0.3	3:1	0.9
Disturbed southern coast live oak riparian woodland	0.5	3:1	1.5
Southern mixed chaparral	48.9	0.5:1	24.5
Disturbed southern mixed chaparral	4.9	0.5:1	2.5
Southern willow scrub	0.1	3:1	0.3
Disturbed southern willow scrub	0.2	3:1	0.6
Mule fat scrub	0.1	3:1	0.1
Intensive agriculture – nursery	0.7	None	0
Orchard	94.4	None	0
Disturbed habitat	14.1	None	0
Developed	7.4	None	0
TOTAL	174.9	-	37.3

SOURCE: RECON 2013c (Appendix G).

**TABLE 2.5-5d
PHASE 4 MITIGATION FOR ON-SITE IMPACTS TO
HABITATS AND VEGETATION COMMUNITIES**

Habitat/Vegetation Community	Phase 4 Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Southern coast live oak riparian woodland	0.1	3:1	0.3
Disturbed southern willow scrub	0.1	3:1	0.3
Disturbed wetland	0.1	3:1	0.3
Extensive agriculture – row crops	7.4	None	0
Orchard	40.8	None	0
Disturbed habitat	3.4	None	0
Developed	1.5	None	0
TOTAL	53.4	-	0.9

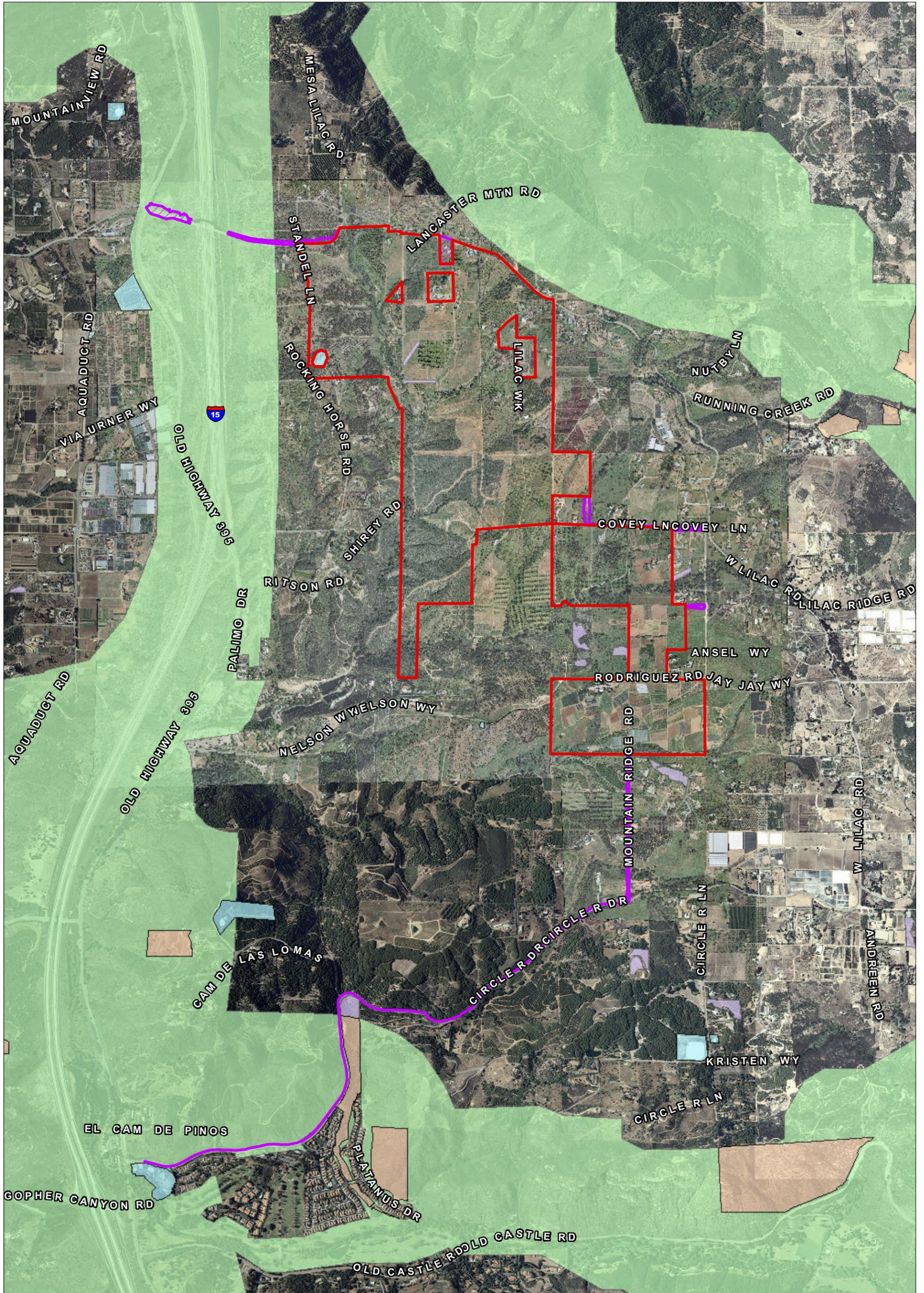
SOURCE: RECON 2013c (Appendix G).

TABLE 2.5-5e
PHASE 5 MITIGATION FOR ON-SITE IMPACTS TO
HABITATS AND VEGETATION COMMUNITIES

Habitat/Vegetation Community	Phase 5 Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)
Southern willow scrub	0.2	3:1	0.6
Open water – fresh water	0.2	3:1	0.6
Extensive agriculture – row crops	77.6	None	0
Orchard	3.1	None	0
Disturbed habitat	8.6	None	0
Developed	6.4	None	0
TOTAL	96.1	-	1.2

SOURCE: RECON 2013c (Appendix G).

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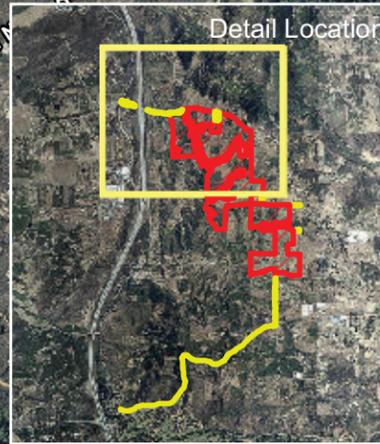
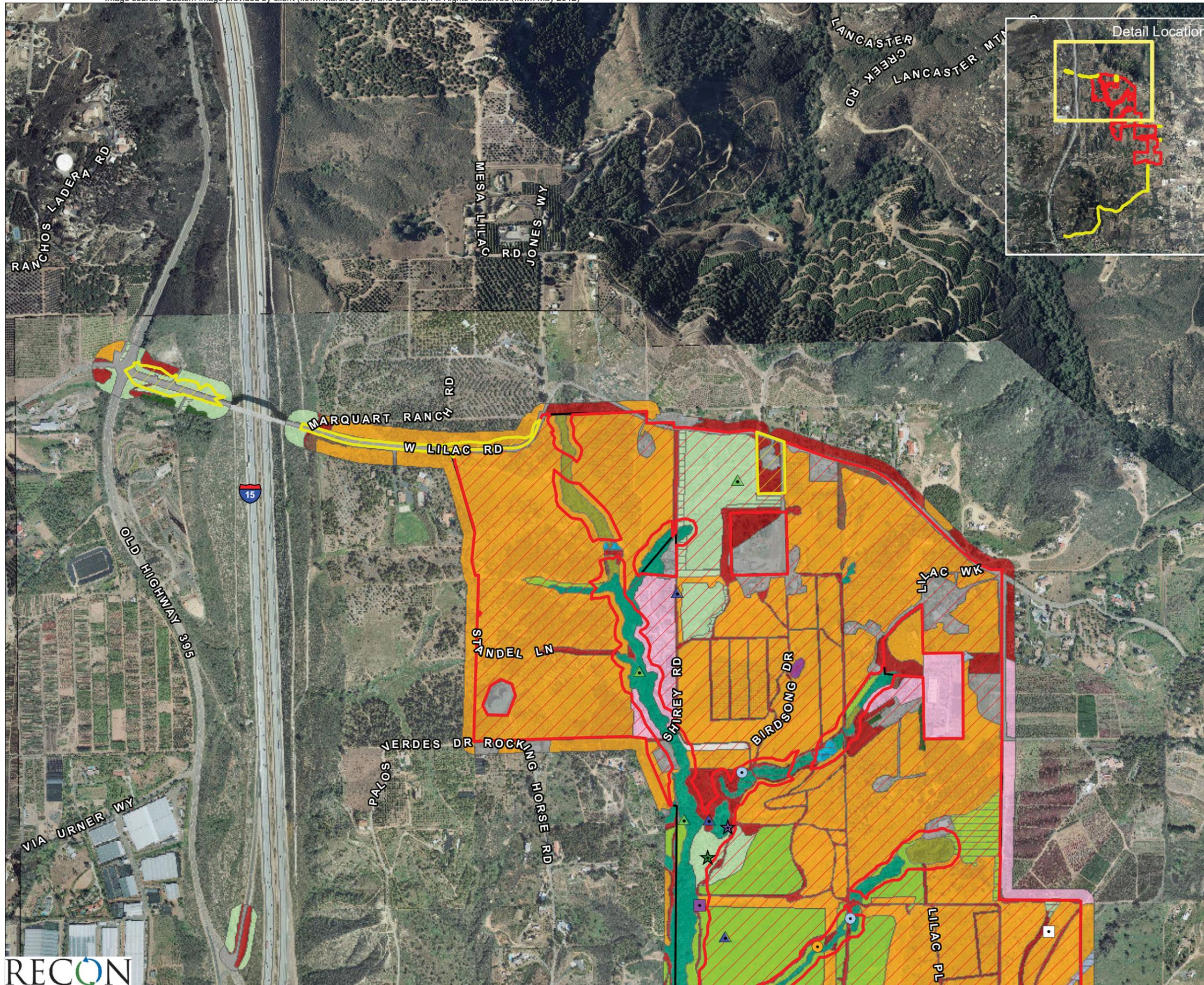


- | | |
|--|---|
|  Project Boundary | Draft North County MSCP (Not Approved) |
|  Off-site Improvement Areas |  Open Space Easement outside PAMA |
| |  Pre-Approved Mitigation Area (PAMA) |
| |  Preserve Areas |
| |  Special Districts |



FIGURE 2.5-1

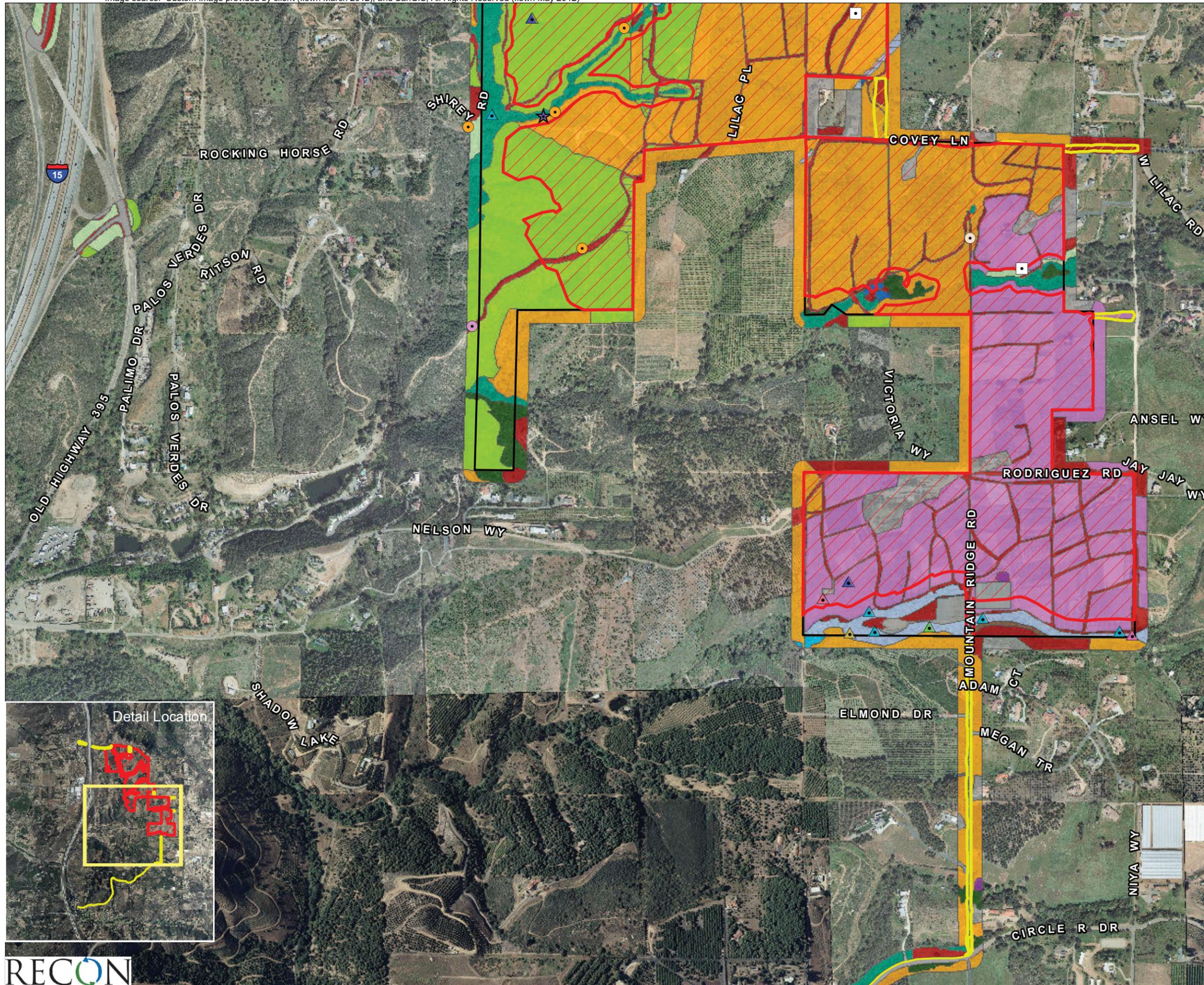
Project Area in Relation to Draft North County MSCP
(MSCP Currently Not Approved)



- Project Boundary
 - Project Impacts
 - Off-site Improvement Areas
- Vegetation Communities and Landcover Type**
- Coastal Sage Scrub (32520)
 - Disturbed Coastal Sage Scrub (32520)
 - Coast Live Oak Woodland (71160)
 - Disturbed Coastal/Valley Freshwater Marsh (52410)
 - Eucalyptus Woodland (79100)
 - Mule Fat Scrub (63310)
 - Southern Coast Live Oak Riparian Woodland (61310)
 - Disturbed Southern Coast Live Oak Riparian Woodland (61310)
 - Southern Mixed Chaparral (37120)
 - Disturbed Southern Mixed Chaparral (37120)
 - Southern Willow Riparian Woodland (62500)
 - Southern Willow Scrub (63320)
 - Disturbed Southern Willow Scrub (63320)
 - Open Water - Fresh water Agriculture pond (64140)
 - Intensive Agriculture - Nursery
 - Orchard (18100)
 - Vinyard (18100)
 - Disturbed Habitat (11300)
 - Developed (12000)
- Sensitive Species Observations**
- Birds**
- Cooper's Hawk
 - Turkey Vulture
- Reptiles**
- Orange-throated Whiptail
 - Red Diamond Rattlesnake
- Mammals**
- Southern Mule Deer
 - San Diego Blacktailed Jackrabbt
- Plants**
- Spiny Rush
 - Engelmann Oak



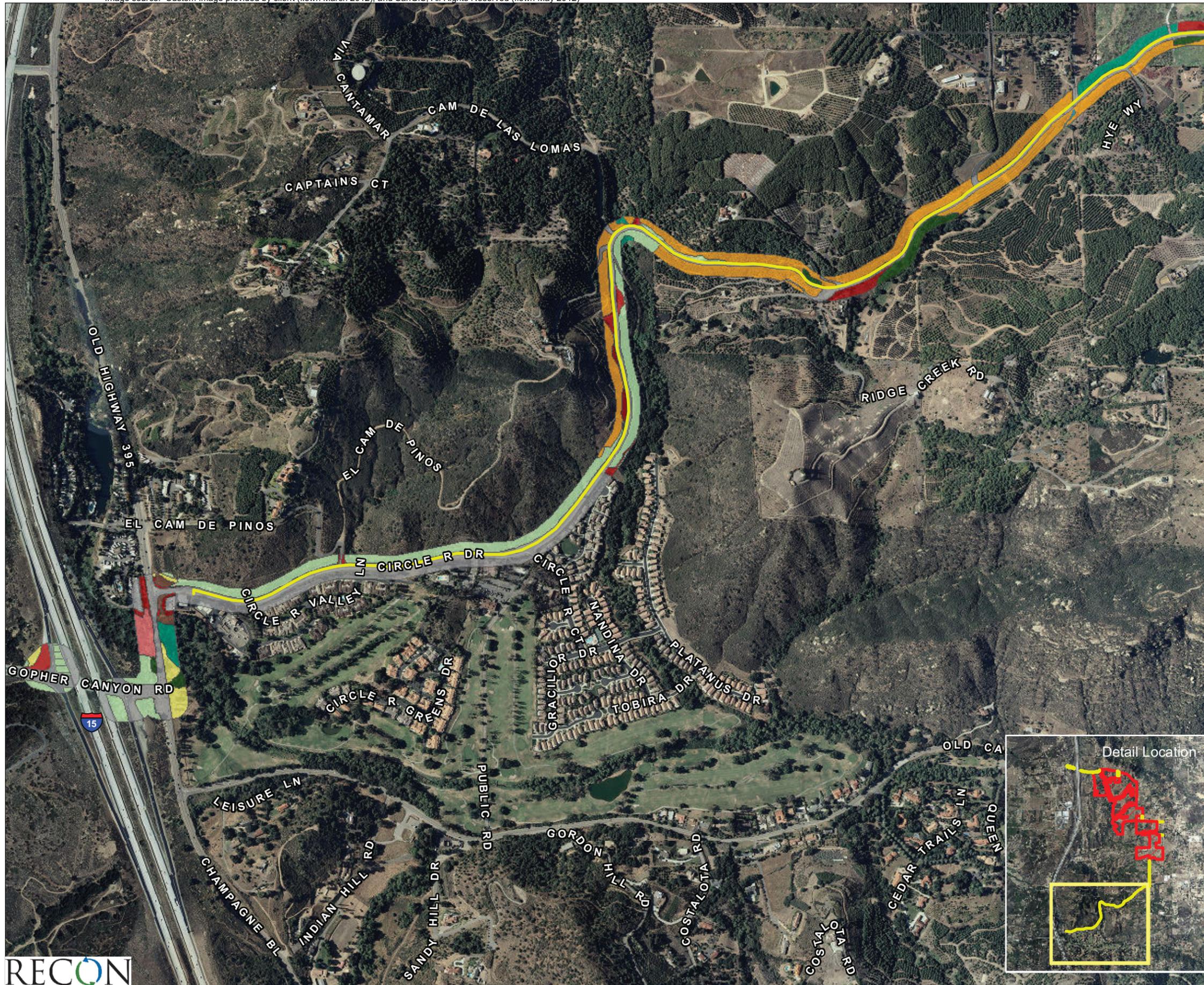
FIGURE 2.5-2a
Vegetation Communities/Land Cover Types
and Sensitive Species Locations
(Northern Project Area)



- Project Boundary
 - Project Impacts
 - Off-site Improvement Areas
- Vegetation Communities and Landcover Type**
- Coastal Sage Scrub (32520)
 - Disturbed Coastal Sage Scrub (32520)
 - Coast Live Oak Woodland (71160)
 - Coastal/Valley Freshwater Marsh (52410)
 - Disturbed Wetland (11200)
 - Eucalyptus Woodland (79100)
 - Southern Coast Live Oak Riparian Woodland (61310)
 - Disturbed Southern Coast Live Oak Riparian Woodland (61310)
 - Southern Mixed Chaparral (37120)
 - Disturbed Southern Mixed Chaparral (37120)
 - Southern Willow Scrub (63320)
 - Disturbed Southern Willow Scrub (63320)
 - Open Water - Fresh water Agriculture pond (64140)
 - Extensive Agriculture - Row Crops
 - Orchard (18100)
 - Disturbed Habitat (11300)
 - Developed (12000)
- Sensitive Species Observations**
- Birds**
- Western Bluebird
 - Cooper's Hawk
 - Yellow-breasted Chat
 - Turkey Vulture
 - White-tailed Kite
 - Yellow Warbler
- Reptiles**
- Orange-throated Whiptail
 - Red Diamond Rattlesnake
 - Coast Horned Lizard
 - Coastal Western Whiptail
- Mammals**
- San Diego Blacktailed Jackrabbit
- Plants**
- Engelmann Oak



FIGURE 2.5-2b
Vegetation Communities/Land Cover Types
and Sensitive Species Locations
(Southern Project Area)



- Off-site Sewer
- Vegetation Communities and Landcover Type**
- Coastal Sage Scrub (32520)
- Disturbed Coastal Sage Scrub (32520)
- Coast Live Oak Woodland (71160)
- Disturbed Coastal/Valley Freshwater Marsh (52410)
- Eucalyptus Woodland (79100)
- Non-native Grassland (42200)
- Southern Coast Live Oak Riparian Woodland (61310)
- Southern Sycamore Riparian Woodland (62400)
- Orchard (18100)
- Disturbed Habitat (11300)
- Developed (12000)

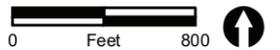
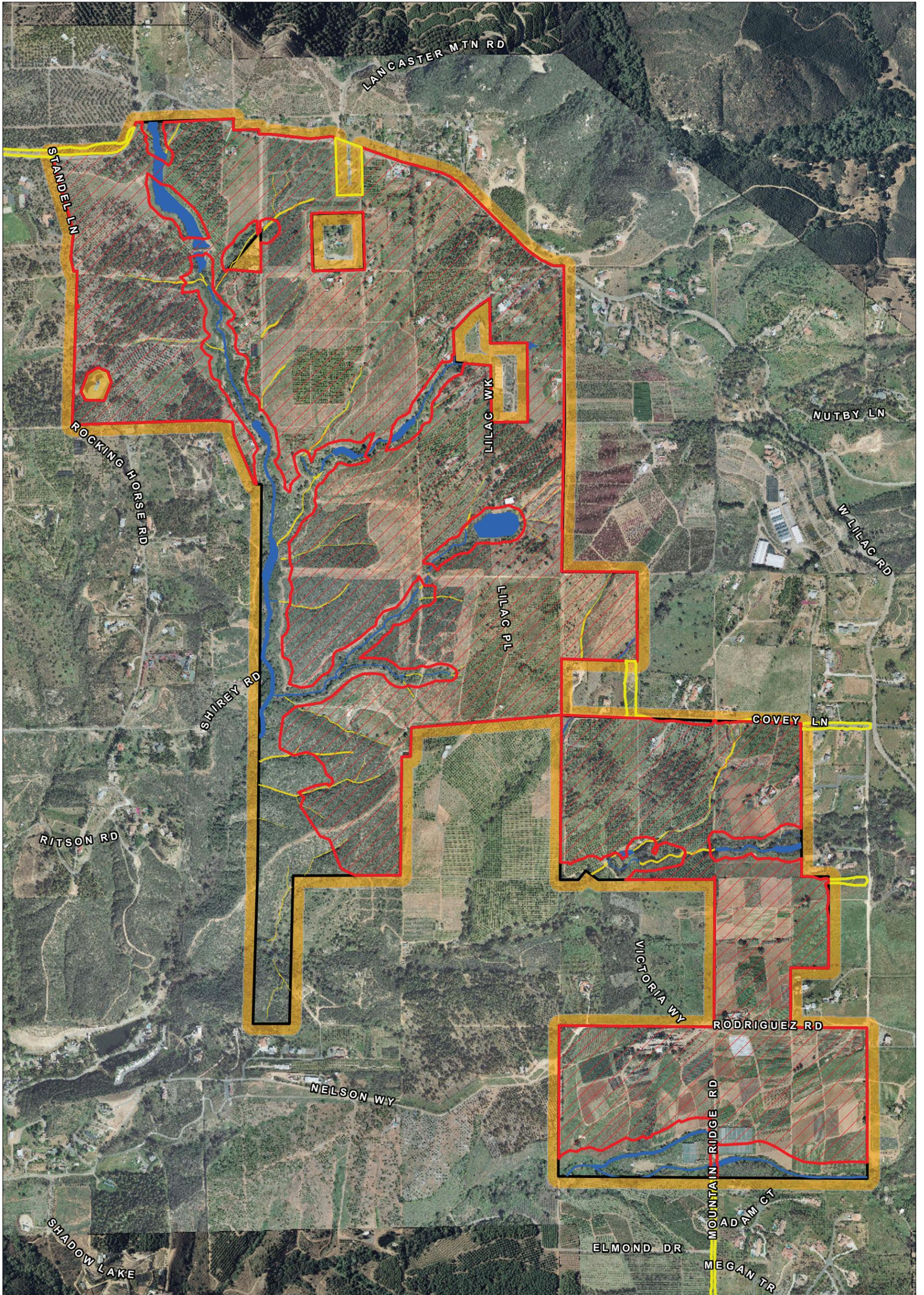


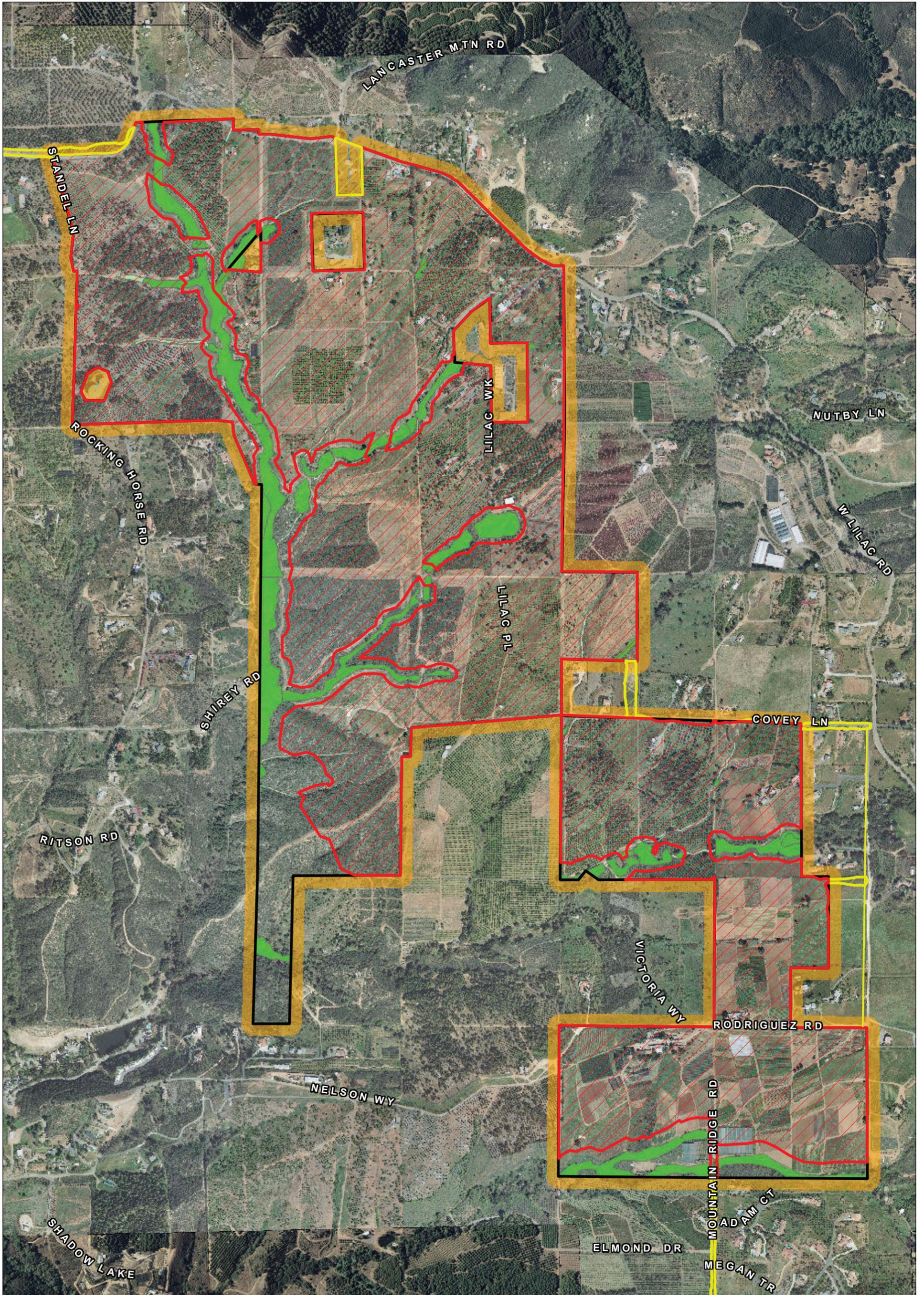
FIGURE 2.5-2c
Vegetation Communities/Land Cover Types
and Sensitive Species Locations
(Off-site Project Area)



- Project Boundary
- Project Impacts
- Wetland
- 100-ft. Survey Buffer
- Off-site Improvement Areas
- Non-wetland water



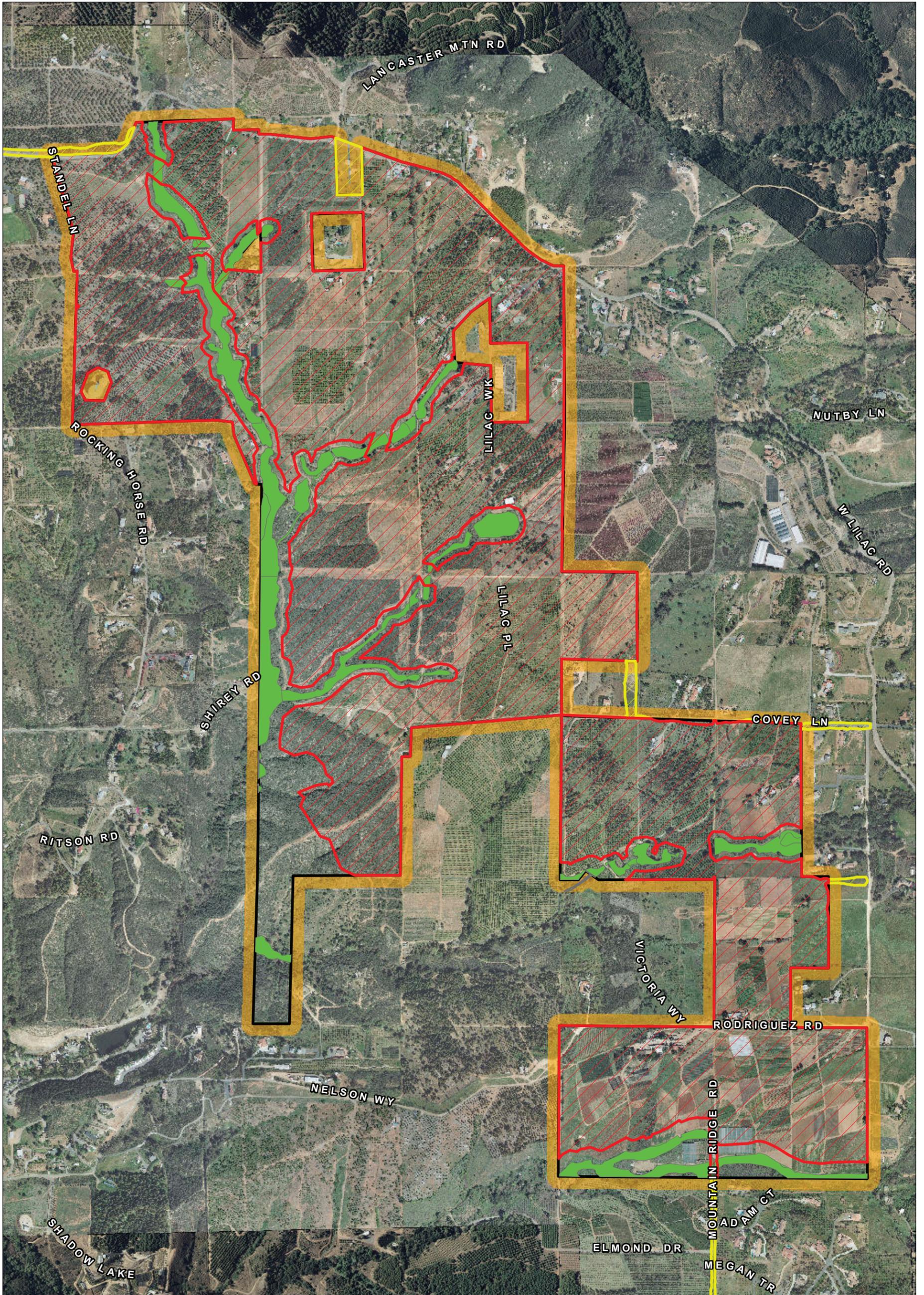
FIGURE 2.5-3a
ACOE Waters of the U.S.



- | | | |
|---|--|---|
|  Project Boundary |  Project Impacts |  Wetland |
|  100-ft. Survey Area |  Off-site Improvement Areas |  Streambed |

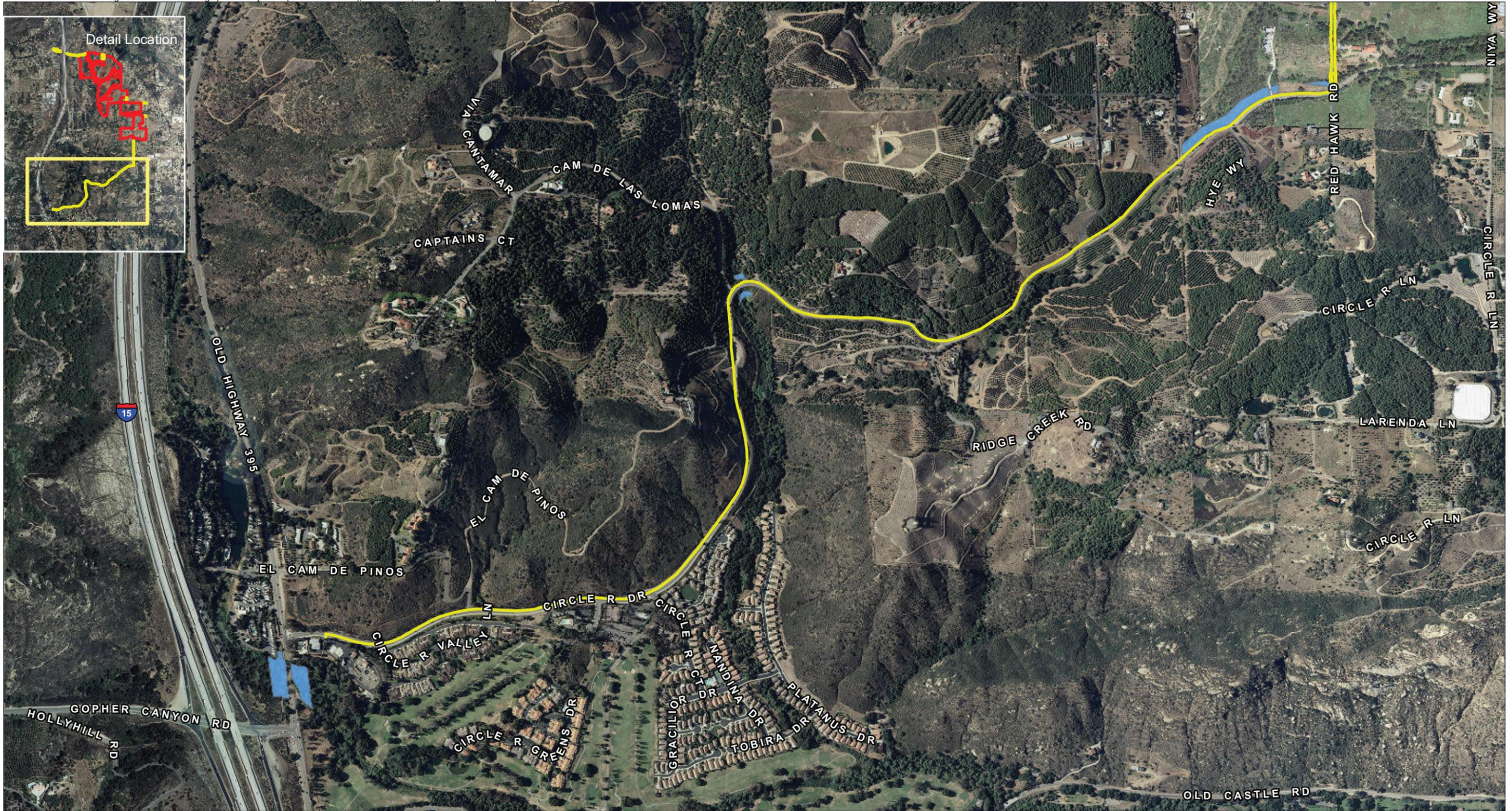


FIGURE 2.5-3b
CDFW/RWQCB State Waters



- Project Boundary
- Project Impacts
- County RPO Wetland
- 100-ft. Survey Area
- Off-site Improvement Areas
- County RPO Wetland - Off-site

0 Feet 800



-  Off-site Improvement Areas
-  RPO, ACOE, CDFW Wetland

FIGURE 2.5-3d