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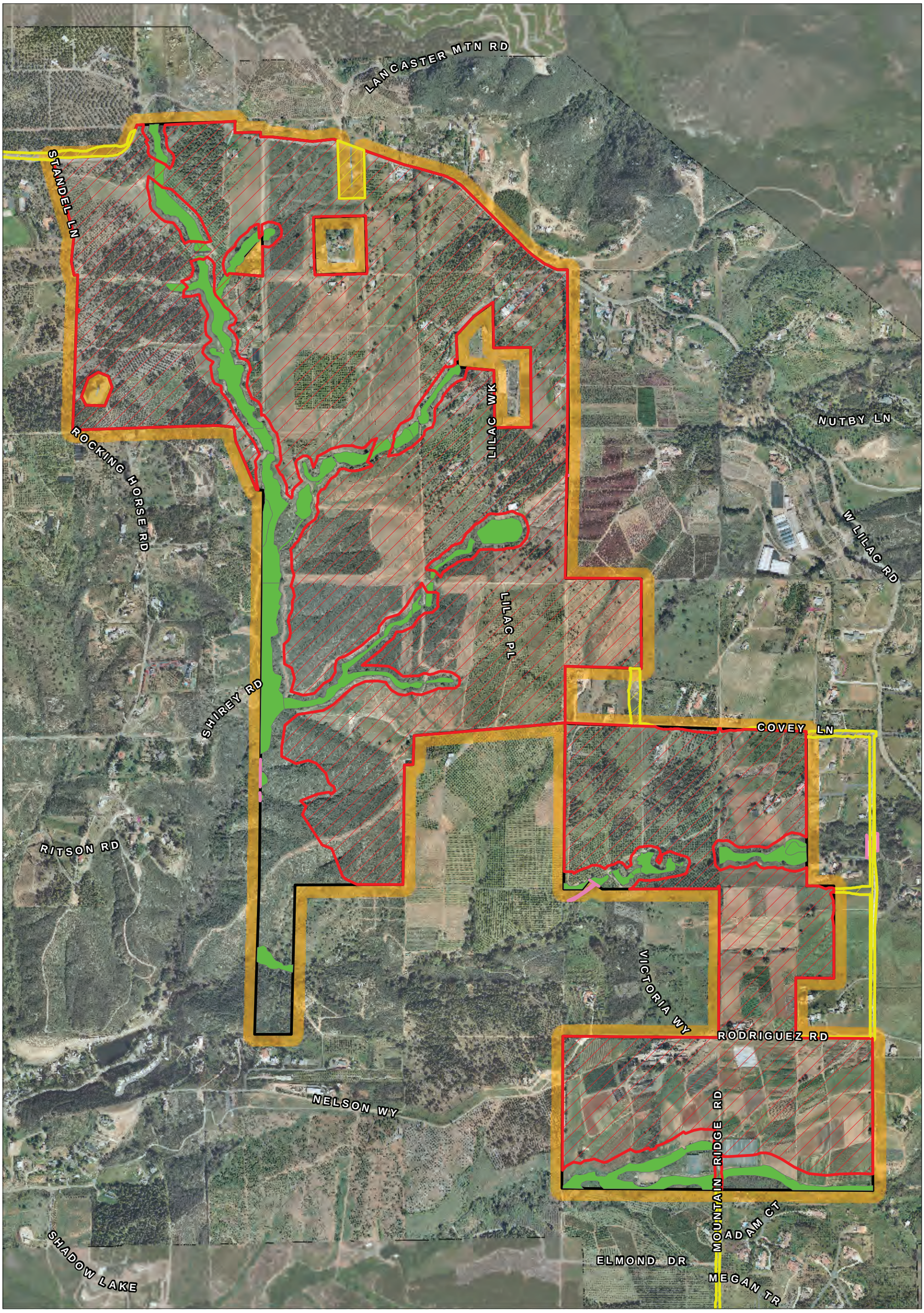


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FIGURE 11c

Impacts to County of San Diego RPO Wetlands

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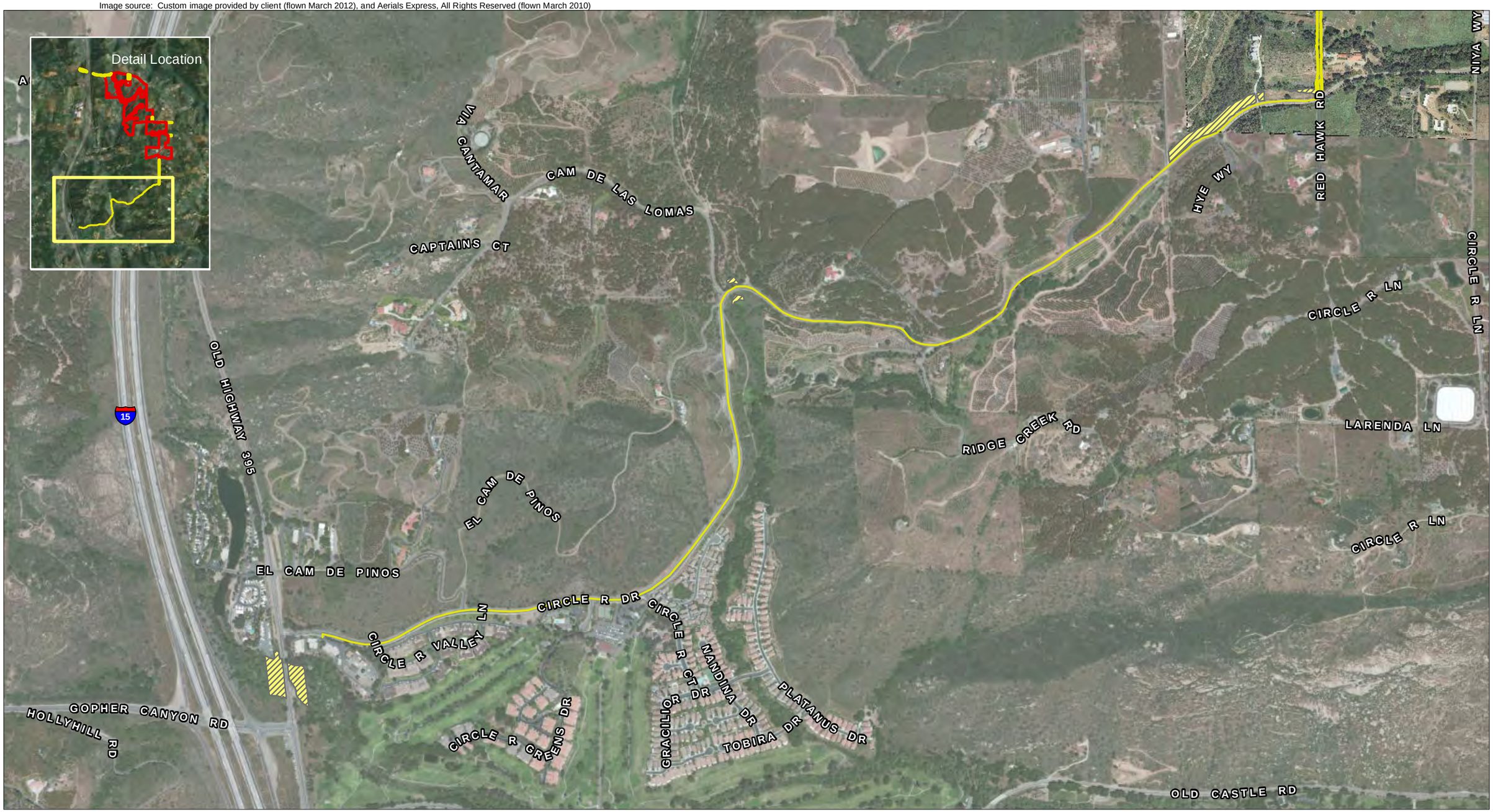


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Off-site Improvement Areas

County RPO, ACOE, CDFG Wetland - Off-site

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FIGURE 11d

Off-site Impacts to ACOE Waters of the U.S.,
CDFG State Waters, and County of San Diego RPO Wetlands

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### 2.3.2 Impacts to Sensitive Wildlife

Direct impacts to southern mixed chaparral, coastal sage scrub, southern coast live oak riparian woodland, southern willow riparian woodland/scrub and agricultural lands would reduce habitat for the following sensitive wildlife species: reptiles—red diamond rattlesnake, coastal whiptail, orange-throated whiptail, and coast horned lizard on-site; birds—turkey vulture, western bluebird, white-tailed kite, Cooper's hawk, yellow warbler, yellow-breasted chat; and mammals—San Diego black-tailed jackrabbit and southern mule deer. These wildlife species may also forage within agricultural and disturbed lands adjacent to the native habitats listed above. Vegetation impacts as a whole would thus reduce the potential of the site to support sensitive wildlife species.

Indirect impacts to sensitive wildlife species that may remain after the project is completed would be the result of edge effects (i.e., noise, lighting, invasive plants, grading encroachments, etc.).

## 2.4 Impacts to Wildlife Corridors, Linkages, and Nursery Sites

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 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 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. However, 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), and confine them to local connections along the larger drainage courses not impacted by the project. Proposed off-site improvements to existing roads that would impact the regional linkages along I-15 would not disrupt these linkages. As discussed later in this report, the project, through off-site mitigation, may enhance regional habitat connectivity through the preservation of habitat within future ~~North County MSCP PAMA lands~~PAMA lands of the draft North County MSCP in Valley Center or suitable lands with native habitat adjacent to the project boundary.

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# 3.0 Special Status Species

A determination of the significance of direct and indirect impacts on special status species is presented in this section of the report. Guidelines for the determination of significance are applied to the proposed impacts to special status species anticipated by the project to determine significance under CEQA and County of San Diego guidelines.

## 3.1 Guidelines for Determination of Significance

The determination of the significance of impacts to special status species is made with regard to the following:

> The project would have a substantial adverse effect, either directly or indirectly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (County of San Diego 2010).

## 3.2 Analysis of Project Effects

Each of the 12 categories of impacts identified in the County's significance determination guidelines for special status species is evaluated in this section.

### 3.2.1 Impacts to Federal and State Listed Species

No federal or state listed species would be impacted by the project.

### 3.2.2 Impacts to County List A or B Plants, County Group 1 Animals, or Species Listed as a State Species of Special Concern

#### 3.2.2.1 Impacts to County List A or B Plant Species

No impacts to plant species that occur on the County List A or B would occur from the proposed project.

#### 3.2.2.2 Impacts to County Group 1 Animals and Species of Special Concern

Direct and indirect impacts to native upland and riparian plant communities and agricultural lands would impact sensitive wildlife species primarily through habitat loss. 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. Four reptile species, seven bird species, and two mammal species that are considered Group 1 or Federal/State Species of Special Concern and have a high potential to be present on-site are evaluated as part of this impact analysis.

Belding's orange-throated whiptail – Direct impacts to southern mixed chaparral vegetation would likely result in impacts to this reptile species. The loss of up to four individuals would not be considered significant because of the relatively wide range of this lizard in San Diego County and that these Belding's orange-throated whiptail locations do not represent a significant regional population. Indirect impacts to individuals of this reptile that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

Coastal whiptail – Direct impacts to southern mixed chaparral vegetation and the loss of orchard would likely result in impacts to this lizard species. The loss of at least one individual would not be considered significant because of the relatively wide range of this reptile in San Diego County and that the single coastal whiptail observation does not represent a significant regional population. Indirect impacts to individuals of this lizard that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

Red diamond rattlesnake – Direct impacts to a variety of native vegetation communities and agricultural lands would likely result in impacts to this reptile species. The loss of up to two individuals would not be considered significant because of the relatively wide range of this snake in San Diego County and that these red diamond rattlesnake observations do not represent a significant regional population. Indirect impacts to individuals of this snake that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

Coast horned lizard – Direct impacts to southern mixed chaparral vegetation would likely result in impacts to this reptile species. While not observed on-site, there is a high potential for individuals of this species to be impacted through habitat loss. The number of individuals of coast horned lizard to be impacted is estimated to be less than five and would not be considered significant because of the relatively wide range of this lizard in

San Diego County and that this coast horned lizard observation does not represent a significant regional population. Indirect impacts to individuals of this reptile that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

Cooper's hawk – Direct impacts to coast live oak riparian woodland, orchards, and coastal sage scrub have the potential to impact Cooper's hawk through habitat loss. No direct loss of individuals of Cooper's hawk is anticipated as these hawks will fly away from the direct disturbance, however, up to four Cooper's hawks would be displaced. These impacts to Cooper's hawk would not be considered significant given the relatively wide range of this bird species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of this hawk species that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

White-tailed kite – Direct impacts to southern willow scrub and adjacent agricultural fields and orchards in the southern portion of the site have the potential to impact white-tailed kite through habitat loss. No direct loss of individuals of white-tailed kite are anticipated as these birds will fly away from the direct disturbance, however, at least one pair of kites would be displaced. These impacts to white-tailed kite would not be considered significant given the relatively wide range of this bird species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of this kite species that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

Turkey vulture – Direct impacts to vegetation, in general, could have impacts on turkey vultures through habitat loss. No direct loss of individuals of turkey vulture are anticipated as these large birds will fly away from the direct disturbance, however, as many as three or more vultures would be displaced to surrounding areas. These impacts to turkey vulture would not be considered significant given the relatively wide range of this bird species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of this vulture species that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after

implementation of the project is likely low and would not represent a regionally significant population.

Loggerhead shrike – Direct impacts to orchards and native uplands and riparian habitats on-site have the potential to impact the loggerhead shrike through habitat loss. No direct loss of individuals of loggerhead shrike is anticipated as these birds will fly away from the direct disturbance, however, at least one loggerhead shrike would be displaced. These impacts to loggerhead shrike would not be considered significant given the relatively wide range of this bird species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of this shrike species that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

Western bluebird – Direct impacts to orchards and native uplands and riparian habitats on-site have the potential to impact the western bluebird through habitat loss. No direct loss of individuals of western bluebird is anticipated as these birds will fly away from the direct disturbance, however, at least one western bluebird would be displaced. These impacts to western bluebird would not be considered significant given the relatively wide range of this bird species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of this bluebird species that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

Yellow warbler – Direct impacts to coast live oak riparian woodlands and southern willow riparian woodland/scrub on-site have the potential to impact the yellow warbler through habitat loss. No direct loss of individuals of yellow warbler is anticipated as these birds will fly away from the direct disturbance, however, at least one yellow warbler could be displaced. These impacts to yellow warbler would not be considered significant given the relatively wide range of this bird species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of this warbler species that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

Yellow-breasted chat – Direct impacts to coast live oak riparian woodlands and southern willow riparian woodland/scrub on-site have the potential to impact the yellow-breasted

chat through habitat loss. No direct loss of individuals of yellow-breasted chat is anticipated as these birds will fly away from the direct disturbance; however, up to five individuals of yellow-breasted chat could be displaced. These impacts to yellow-breasted chat would not be considered significant given the relatively wide range of this bird species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of this bird species that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

San Diego black-tailed jackrabbit – Direct impacts to coastal sage scrub and agricultural areas on-site would impact San Diego black-tailed jackrabbit through habitat loss. There is the potential for the direct loss of individuals of San Diego black-tailed jackrabbit as these rabbits may not always be able to avoid construction equipment. At least two San Diego black-tailed jackrabbits could be displaced. These impacts to San Diego black-tailed jackrabbit would not be considered significant given the relatively wide range of this rabbit species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of this rabbit species that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

San Diego desert woodrat – Direct impacts to coastal sage scrub, southern mixed chaparral, and coast live oak riparian woodland vegetation on-site would impact San Diego desert woodrats through habitat loss. There is the potential for the direct loss of individuals of San Diego desert woodrat as these animals may not always be able to avoid construction equipment. There is the potential for the direct loss of up to 10 or more San Diego desert woodrat nests. These impacts to San Diego desert woodrat would not be considered significant given the relatively wide range of this woodrat species in San Diego County and that these observations do not represent a significant regional population. Indirect impacts to individuals of San Diego woodrat that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and would not represent a regionally significant population.

### 3.2.3 Impacts to County List C or D Plants, County Group 2 Animals Species

Direct and indirect impacts to three plants species on List C or D of the County would occur from the project. Direct and indirect impacts to wildlife in Group 2 of the County are addressed above as all of these species are also listed as Federal or State Species of Special Concern.

Prostrate spineflower: Direct impacts to southern mixed chaparral on-site could result in the direct loss of up to 100 individuals of prostrate spineflower. This loss of individuals of prostrate spineflower would not be considered significant as the overall population numbers do not appear to be great enough to consider this location a significant regional population. Indirect impacts to individuals of prostrate spineflower that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered significant as the number of individuals of this species to remain after implementation of the project is likely low and this species regularly occupies disturbed areas (Reiser 2001).

Southwestern spiny rush: No direct impacts to the approximately 20 individuals of southwestern spiny rush that were observed on-site are anticipated as the project would avoid impacting the drainage course where this species was observed. Therefore, no significant direct impacts to this species would occur. Indirect impacts to individuals of southwestern spiny rush that remain in project open space areas would be the result of edge effects due to the proximity of development to occupied habitat. These indirect impacts would not be considered 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: No direct impacts to the three Engelmann oak trees that were observed within the coast live oak riparian woodlands on-site would occur. These trees are located within riparian habitat to be preserved by the project. Therefore, no significant direct impacts to this species would occur. Indirect edge effect impacts to the three trees may occur due to the proximity of development to the open space area. These indirect impacts would not be considered significant as the number of individuals is not enough to consider this location a significant regional population.

### 3.2.4 Impacts to Arroyo Toad Aestivation, Foraging, or Breeding Habitat

The proposed project would not impact any habitat used by the arroyo toad for aestivation, foraging, or breeding. The habitat assessment for arroyo toad conducted for the project site concluded that no suitable habitat for the arroyo toad is present. The nearest known arroyo toad location is in excess of a mile away to the north of the project

in Keys Canyon, and this location is separated from the project site by very steep slopes, orchards, and West Lilac Road.

### 3.2.5 Impacts to Golden Eagle Habitat

The project site does not contain suitable nesting habitat for golden eagle. Golden eagles typically nest on cliffs or in deciduous and coniferous trees at higher elevations (USFWS 2010). The nearest known sighting of golden eagle is approximately 4.5 miles to the northeast near Pala Mountain and around the San Luis Rey River valley (State of California, 2007d). It is not known if nesting activity was observed at this location; however, the proposed project is over 4,000 feet from this known occurrence and therefore would not likely impact golden eagle habitat.

### 3.2.6 Impacts to Nesting and Functional Foraging Habitat for Raptors

Direct impacts to relatively large acreages of native vegetation areas and agricultural lands would result in the loss of functional nesting and foraging habitat for raptors, such as Cooper's hawk, white-tailed kite, turkey vulture, and red-tailed hawk. This impact would be considered significant, especially if impacts to habitat are to occur during the raptor breeding season (January 15–July 15). Potential indirect impacts to any functional nesting raptor foraging habitat that remains on-site or adjacent to the project would be the result of edge effects, particularly construction noise impacts on nesting/breeding behaviors. These types of indirect impacts may be significant.

### 3.2.7 Impacts to Core Wildlife Area

The proposed project is not within or part of a core wildlife area as identified in the draft North County MSCP. Portions of proposed off-site improvement areas are within the core wildlife areas along the I-15 corridor. These off-site impacts would be the result of improvements (e.g., widening) of existing roads and freeway on/off ramps. These impacts would not disrupt the functions of these core wildlife areas.

### 3.2.8 Assessment of Indirect Impacts to Proposed and Existing Open Space Areas

The proposed open space areas within the project area would be confined to the drainage courses that are being avoided. These open space areas are narrow and mostly surrounded by development except along the western and southern boundary of the project. Sources of indirect impacts to these open space 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. Therefore, the potential indirect impacts to proposed open space area would be considered significant, but could be mitigated through the establishment of wetland buffers as discussed below.

The project would provide a minimum of a 50-foot buffer around the wetlands that are being preserved within the on-site biological open space. This wetland buffer in combination with the adjacent 100-foot limited building zone outside of the biological open space boundary would be sufficient to avoid and minimize any potential indirect impacts to the wetlands, protecting the function and value of the preserved wetland habitat.

Permanent fences would be built on property lines where lots occur adjacent to biological open space to deter encroachment into the open space area. Fences would also be placed at trail heads and staging areas to avoid impacts to adjacent areas and signs would notify pedestrians on the sensitive nature of the open space being entered. Signs would be placed along trails within or bordering biological open space areas at intervals of 200 feet to remind pedestrians of the biological sensitivity of the habitats being protected and to remain on the existing trails at all times. A conceptual trail and signage plan is provided in Attachment 14.

Existing open space areas outside of the project are mostly confined to steep slopes and the larger drainage courses. The majority of the surrounding land is under some sort of agricultural activity and thus not a lot of natural open space areas remain adjacent to the project. There is some native habitat off-site to the southwest along the extension of the major drainage course and adjacent slopes that have some upland chaparral and riparian habitat.

### 3.2.9 Impacts to Burrowing Owl Habitat

The habitat assessment conducted for burrowing owl concluded that there was a low probability of occurrence for burrowing owl because the habitats present on the site were not suitable for this species. No impacts to burrowing owl or their habitat are anticipated from the project.

### 3.2.10 Impacts to Cactus Wren Habitat

The habitat assessment conducted for cactus wren concluded that there was a low probability of occurrence for this species in the project area because no suitable habitat occurs on the site. No impacts to occupied or formerly occupied cactus wren habitat are anticipated from the project.

### 3.2.11 Impacts to Hermes Copper Habitat

The habitat assessment for Hermes copper butterfly conducted in the project area concluded that there is a low probability for this species to occur on the site due to lack of suitable habitat. Hermes copper butterfly typically requires a spiny redberry shrub density of 60 to 95 percent, and a nectar source like buckwheat within 3 to 4 meters (Faulkner et al. 2012). While the site has spiny redberry shrubs, these shrubs occur as highly scattered individuals and lack the size and density associated with habitat that would likely support the species. No Hermes copper butterfly individuals were observed on the site. Therefore, no impacts to Hermes copper butterfly or their habitat are anticipated from the project.

### 3.2.12 Impacts to Sensitive Bird Nesting

No impacts to nesting activities are anticipated for the following sensitive bird species: coastal cactus wren, coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, golden eagle, or light-footed clapper rail. None of these sensitive bird species were observed on the site and most species lack suitable habitat on the site.

Tree-nesting and ground-nesting raptors were observed on-site; therefore, there is the potential for impacts to nesting activities to occur during grading, clearing, fire fuel modification, and noise during construction. These types of direct and indirect impacts may be significant without measures to avoid impacts during the breeding season.

## 3.3 Cumulative Impact Analysis

Cumulative impacts from the proposed project were evaluated with regards to past, present, and future projects within the cumulative study area. As the project is not located within an adopted MSCP, the cumulative study area was determined based on the localized habitat area in accordance with the County's Report Format and Content Requirements Biological Resources (County of San Diego 2010). The localized habitat area was defined by topography and man-made features that reduce wildlife movement and generally create a local wildlife ecoregion. The features include the steep hillsides and ridgelines located to the north of West Lilac Road and Old Castle Road, I-15, and Blankinton Airport. The cumulative study area boundary ranges from one to two miles around the project site and is illustrated in Figure 12. Within this cumulative study area, 12 projects were identified for the evaluation of cumulative impacts (Table 7).

The habitats located on the cumulative project sites were determined based on the draft North County MSCP vegetation mapping (County of San Diego 2009) and aerial photographs. This determination of habitats was done to complete a qualitative cumulative analysis and no field surveys of the cumulative project sites were completed. The cumulative projects sites contain mainly agricultural lands (e.g., orchards, row crops) and smaller areas of native habitats (see Table 7). Cumulative project sites 1

(Marquart Ranch), 2 (Rockefeller), 3 (Champagne Lakes), 5 (Gangavalli), 6 (Goodnight Ranchos), 7 (McBride), 10 (Nichols Whitman), 11 (Robinson), and 12 (Sukup) are all currently agricultural sites. Cumulative sites 8 (Moddelmoa) and 9 also contain urban and agricultural uses, but half of site 8 remains as southern mixed chaparral and a fourth of site 9 contains coast live oak woodland and non-native grassland. Cumulative site 4 (Fitzpatrick), has the most native vegetation remaining of all the cumulative sites, and is partially developed as an RV park with the remaining area consisting of southern mixed chaparral, Diegan coastal sage scrub, coast live oak woodland, freshwater, and southern willow scrub.

As the project would have no impact related to the following special status species, the project would have no contribution to cumulative impacts to such species or habitat: federal or state listed species, County List A, B or C Plants, arroyo toad breeding habitat, golden eagle habitat; core wildlife areas, burrowing owl habitat, cactus wren habitat, or Hermes copper habitat. Thus, the project would not have a significant cumulative impact related to those special status species. The remaining special status species impacts are addressed further below to determine if the project's incremental contribution would significantly add to a cumulatively considerable impact.

### 3.3.1 Cumulative Impacts to Group 1 or Federal/State Species of Special Concern

The project would have less than significant impacts to Belding's orange-throated whiptail, coastal whiptail, red diamond rattlesnake, coast horned lizard, Cooper's hawk, white-tailed kite, turkey vulture, loggerhead shrike, western bluebird, yellow warbler, yellow-breasted chat, San Diego black-tailed jackrabbit, and San Diego desert woodrat. Given the habitats these species are typically found in, the cumulative projects have potential to result in impacts to these species as well.

Image source: SanGIS (flown May 2012)

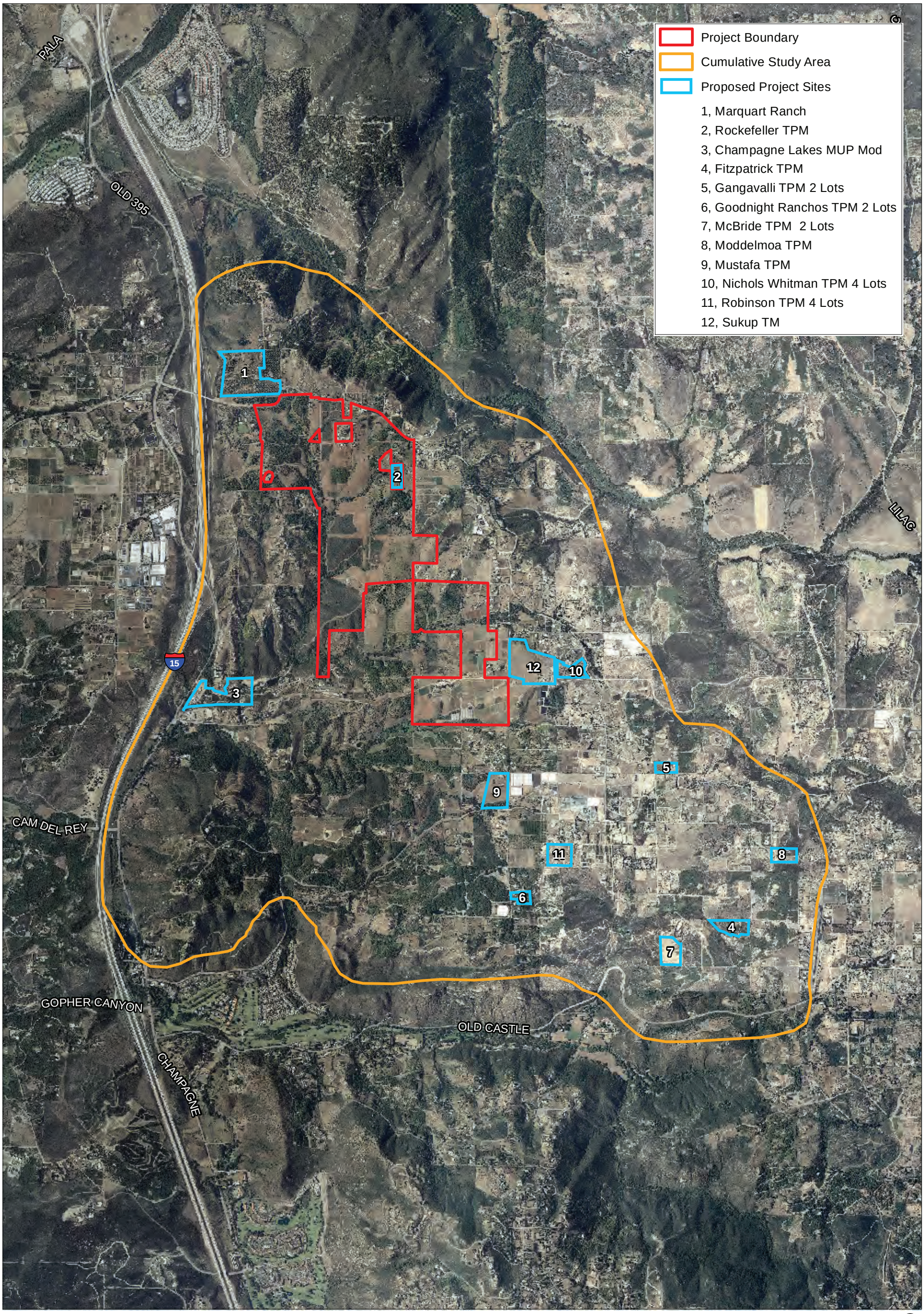


FIGURE 12

Location of Project Considered for Cumulative Impacts

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**TABLE 7**
**CUMULATIVE PROJECT LIST[1]**

| Map Key # | Project | Project Description | Project Reference Numbers | Area (acres) | Location | Habitat Types Present[2] | Species Potentially Present[3] |
|---|---|---|---|---|---|---|---|
| 1 | Marquart Ranch | 9 single-family lots. Includes improvements to West Lilac Road and Mesa Lilac Road, and drainage improvements. | TM 5410 | 44.2 | West Lilac Road and Mesa Lilac Road, Bonsall APNs: 125-232-29-00 and 125-232-32-00 | agriculture (orchard)<br>developed | Red diamond rattlesnake<br>Cooper's hawk<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |
| 2 | Rockefeller TPM | 2 lots | TPM 20596 | 5 | 9590 Lilac Way | agriculture (nursery and greenhouses)<br>developed | Red diamond rattlesnake<br>Cooper's hawk<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |
| 3 | Champagne Lakes, MUP, Mod | Modification for the relocation of 51 RV spaces and one mobile home space to include full hookups to 20 RV spaces, a new restroom, and an area screened by landscaping for vehicle storage. | 06-0055819 | | 8310 Nelson Way | developed<br>Diegan coastal sage scrub<br>coast live oak woodland<br>freshwater<br>southern willow scrub<br>southern mixed chaparral | Belding's orange-throated whiptail<br>Coastal whiptail<br>Red diamond rattlesnake<br>Coast horned lizard<br>Cooper's hawk<br>white-tailed kite<br>western bluebird<br>Yellow warbler<br>yellow-breasted chat<br>San Diego black-tailed jackrabbit<br>San Diego desert woodrat<br>loggerhead shrike<br>turkey vulture<br>spiny rush<br>Engelmann oak<br>prostrate spineflower |
| 4 | Fitzpatrick TPM | The project is a minor subdivision of a 10.8-acre parcel currently being used for agriculture (avocado grove). The project proposes to develop four residential lots ranging in size from 2.3 to 3.1 acre. | 04-0023583 | 10.8 | Tomsyl Road | agriculture (orchard) | Red diamond rattlesnake<br>Cooper's hawk<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |

**TABLE 7**
**CUMULATIVE PROJECT LIST[1]**
**(continued)**

| Map Key # | Project | Project Description | Project Reference Numbers | Area (acres) | Location | Habitat Types Present[2] | Species Potentially Present[3] |
|---|---|---|---|---|---|---|---|
| 5 | Gangavalli TPM | The project proposes to divide 5.05 net acres into 2 parcels measuring 2.51 acres gross (2.29 acres net), and 2.51 acres gross (2.45 acres net). | 07-0086629 TPM 21101 | 5.05 | 10418 King Sanday Lane APN 129-212-24-00 | agriculture (orchard) | Red diamond rattlesnake<br>Cooper's hawk<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |
| 6 | Goodnight Ranchos, TPM, | The project proposes to divide 5.0 acres into 2 parcels measuring 2.45 acres net each. The proposed parcels will have frontage upon Circle R Lane. | 06-0058961 | 5.0 | 30359 Circle R Lane APN 129-310-36-00 | agriculture (orchard)<br>developed | Red diamond rattlesnake<br>Cooper's hawk<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |
| 7 | McBride, TPM | 2-lot residential subdivision | 07-0086911 | | 29945 Spearhead Trail | Agriculture<br>developed<br>disturbed | Red diamond rattlesnake<br>Cooper's hawk<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |
| 8 | Moddelmoa TPM | Tentative Parcel Map to subdivide 21.1 acres into 4 parcels and a remainder. | 04-13025 | 21.1 | 30455 and 30463 Roadrunner Ridge South | agriculture,<br>developed<br>southern mixed chaparral | Belding's orange-throated whiptail<br>Coastal whiptail<br>Red diamond rattlesnake<br>Coast horned lizard<br>Cooper's hawk<br>San Diego black-tailed jackrabbit<br>San Diego desert woodrat<br>loggerhead shrike<br>turkey vulture<br>prostrate spineflower |

**TABLE 7**
**CUMULATIVE PROJECT LIST[1]**
**(continued)**

| Map Key # | Project | Project Description | Project Reference Numbers | Area (acres) | Location | Habitat Types Present[2] | Species Potentially Present[3] |
|---|---|---|---|---|---|---|---|
| 9 | Mustafa TPM | Tentative Parcel Map to subdivide 16.4 acres into 4 parcels and a remainder. | 04-11418 | 16.4 | 9770 Circle R Road<br>APN 129-390-17-00 | agriculture (row crops)<br>coast live oak woodland<br>non-native grassland | Coastal whiptail<br>Red diamond rattlesnake<br>Cooper's hawk<br>white-tailed kite<br>western bluebird<br>Yellow warbler<br>yellow-breasted chat<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture<br>spiny rush<br>Engelmann oak |
| 10 | Nichols Whitman TPM | TPM 4 Lots | 05-0045920 | | 10015 W Lilac Road | agriculture (orchard)<br>developed | Red diamond rattlesnake<br>Cooper's hawk<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |
| 11 | Robinson TPM | 4 single-family residential lots | 07-0087850 | | 10127 Circle R Drive | agriculture<br>developed | Red diamond rattlesnake<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |
| 12 | Sukup TM | Tentative Map to subdivide 24.62 gross acres into 9 single-family residential lots ranging in size from 2.02 to 2.90 net acres. | | 24.62 | | agriculture (field/pasture)<br>developed | Red diamond rattlesnake<br>western bluebird<br>San Diego black-tailed jackrabbit<br>loggerhead shrike<br>turkey vulture |

[1]As the following projects were either withdrawn or expired, they are not included in the cumulative impact analyses: Kehne residence (05-0045714), and Lilac Ridge (TPM 20996).

[2]The habitats located on the cumulative project sites were determined based on the draft North County MSCP vegetation mapping (County 2009) and aerial photographs. No vegetation mapping of cumulative project sites was completed as a part of this analysis.

[3]The potential species located on the cumulative project sites were determined based the habitats present. No site-specific assessments or surveys were completed as a part of this analysis.

All of the cumulative sites have potential to provide habitat for red diamond rattlesnake, Cooper's hawk, western bluebird, San Diego black-tailed jackrabbit, loggerhead shrike and turkey vulture. Belding's orange-throated whiptail, coast horned lizard, and San Diego desert woodrat also have potential to occur within southern mixed chaparral on cumulative project sites 3 and 8. Coastal whiptail has potential to occur within southern mixed chaparral and coast live oak woodland on cumulative sites 3, 8, and 9. White-tailed kite, yellow warbler, and yellow-breasted chat have potential to occur with coast live oak woodland on cumulative sites 3 and 9.

The project impacts to these species combined with the loss as a result of the cumulative projects would not jeopardize the local long-term survival of these species given their abundance and the habitat remaining within the local area. All projects would be required to comply with sensitive habitat mitigation requirements of the County and Resource Agencies (e.g., NCCP, HLP Ordinance, and County Biological Guidelines), which would increase the cumulative amount of protected habitat that supports special status species. Thus, the cumulative impact to these 13 species would be less than significant.

### 3.3.2 Cumulative Impacts to List D Plants

As indicated above, the project would have less than significant impacts to three List D plants; prostrate spineflower spiny rush, and Engelmann oak. As they include coast live oak woodlands and drainages, cumulative projects 3 and 9 have a potential to include spiny rush and Engelmann oak. Cumulative projects 3 and 8 also have potential to include prostrate spineflower since they contain chaparral habitat. The potential cumulative loss of prostrate spineflower, spiny rush, and Engelmann oak in the localized cumulative area would not jeopardize the long-term survival of these species given the wide range and abundance of these species northern San Diego County.

### 3.3.3 Cumulative Impacts to Nesting and Functional Foraging Habitat for Raptors

The orchards, row crops, and native habitats located on the project site and cumulative project site provide for raptor foraging and nesting habitat for raptors. The implementation of the project and cumulative projects would result in the loss of raptor nesting and foraging habitat. However, a significant amount of nesting and foraging habitats would remain within the cumulative study area after the implementation of project and cumulative projects. Considering the amount of nesting and foraging raptor habitat remaining, raptors would move to the remaining areas and the cumulative loss of nesting and foraging habitat would not reduce the existing raptor population in the area. In addition, projects would be required to comply with the MBTA and Fish and Game Code that protects nesting raptors. Thus, the cumulative impacts to nesting and foraging habitat for raptors would be less than significant.

### 3.3.4 Cumulative Indirect Impacts to Proposed and Existing Open Space Areas

The project would result in less than significant impacts to on-site and adjacent open space areas. Given the cumulative project locations and the location of open space, only cumulative project 2 could result in indirect impacts to the same open space area that the project would indirectly impact. Given that the cumulative project 2 is located approximately 250 feet from the proposed open space riparian corridor on the project site and is already developed with agricultural uses, it is unlikely that development of that site in combination with the project would result in a new cumulatively significant impact. The remaining cumulative projects have potential to indirectly impact other open space areas. These cumulative indirect impacts could be significant if adequate mitigation, including buffers, is not provided. As the project includes features to avoid indirect impacts, the project contribution to the cumulative indirect impacts would be less than significant.

### 3.3.5 Cumulative Impacts to Sensitive Bird Nesting

The agricultural and native habitats located on the project site and cumulative project sites provide nesting habitat for species covered by the Migratory Bird Treaty Act and Fish and Game Code. The cumulative projects as well as the proposed project are all required to comply with the Migratory Bird Treaty Act and Fish and Game Code. As such, cumulative impacts to sensitive bird nesting would be less than significant.

## 3.4 Mitigation Measures and Design Considerations

Mitigation measures to be applied to reduce significant impacts to special status species to below a level of significance are presented in this section of the report.

### 3.4.1 Plant Species

No significant impacts to special status plant species were identified.

### 3.4.2 Animal Species

The direct and indirect impacts to native habitats on-site that support special status species are considered significant and require mitigation. Mitigation requirements presented in Section 4.4 for habitat loss would reduce impacts of habitat loss for special status species to a level below significance. The preservation of similar upland habitat types at an off-site location within a future draft PAMA or suitable lands with native habitat adjacent to the project boundary is important. In addition, the location of the preserved habitat should be in an area that supports the Group 1 wildlife species being affected by the project. Biological resource surveys of the lands proposed as mitigation

would be necessary to verify that the lands being preserved support the Group 1 animals being affected by the project (see Section 3.2.2.2 Impacts to County Group 1 Animals and Species of Special Concern for a list of species).

The on-site preservation of primarily riparian woodland and riparian scrub habitats along the major drainage courses would mitigate habitat impacts to special status animal species that prefer riparian habitat (e.g., Cooper's hawk, white-tailed kite, yellow warbler, and yellow-breasted chat). The proposed minimum 50-foot wetland buffers in conjunction with the adjacent 100-foot limited building zone are adequate to reduce potential edge effects to the habitat that supports these species.

## 3.5 Conclusions

Direct and indirect impacts to the native upland and riparian habitats that support special status plant and animal species on-site are considered significant and require mitigation. Mitigation for these habitats would reduce impacts to special status plants and animals to a level below significance.

# 4.0 Riparian Habitat or Sensitive Natural Community

A determination of the significance of direct and indirect impacts on riparian habitats or sensitive natural communities is presented in this section of the report. Guidelines for the determination of significance are applied to the proposed impacts to riparian habitat or sensitive natural communities anticipated by the project to determine significance under CEQA and County of San Diego guidelines.

## 4.1 Guidelines for Determination of Significance

The determination of the significance of impacts to special status species is made with regard to the following:

> The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (County of San Diego 2010).

## 4.2 Analysis of Project Effects

A discussion of the direct and potential indirect impacts to riparian habitat or sensitive natural communities that would occur due to the project is presented in this section of the report.

### 4.2.1 Direct Impacts to Riparian Habitat or Sensitive Natural Communities

The project would have direct impacts to riparian habitat (see Table 4) due to road crossings and general site grading. Anticipated impacts would remove vegetation during the grading of the project and result in the placement of fill, structures, road crossings, culverts and other infrastructure (e.g., utility lines) in wetlands and riparian habitat. These impacts would be considered significant.

### 4.2.2 Impacts to Jurisdictional Wetlands/Riparian Habitats – USACE, CDFG, County of San Diego

The project would have direct impacts to wetlands, riparian habitats, and other waters (i.e., non-wetland waters, streambed) under the jurisdiction of the USACE, CDFG, and County of San Diego (see Table 6) due to road crossings and general site grading. Anticipated impacts would remove vegetation during the grading of the project and result

in the placement of fill, structures, road crossings, culverts, and other infrastructure (e.g., utility lines) in wetlands, riparian habitat, and non-wetland waters/streambeds. These impacts would be considered significant.

### 4.2.3 Impacts to Groundwater

The proposed project plans to 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. 2012). 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 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 amount to be extracted and potential recharge, no impacts to groundwater-dependent habitat are anticipated for this project.

### 4.2.4 Potential Indirect Impacts to Riparian Habitat or Sensitive Natural Communities

The proposed riparian habitat areas to remain in open space within the project area would be along drainage courses that are being avoided (see Figures 10a-c). These riparian habitat areas are narrow and mostly surrounded by development except along the western and southern boundary of the project. 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 would establish buffers that are a minimum of 50 feet around these open space areas to reduce these edge effects. In addition, the project would include permanent fencing or walls where lots are adjacent to open space, at trail heads and at staging areas; signage every 200 feet on trails along or in open space prohibiting access to sensitive areas; and 100-foot limited building zones around open space areas to reduce 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. Specifically, County regulations require on-site nighttime lighting to be shielded and directed away from riparian and sensitive habitat. Through conformance with the Watershed Protection Ordinance (WPO), the project's Stormwater Pollution Prevention Plan (SWPPP) would provide Best Management Practices (BMPs) to be used as a filtration system to protect the on-site riparian areas from polluted run-off. The project would be required to comply with the San Diego County Code Section 36.404, Sound Level Limits, and Section 36.409, Sound Level Limitations on Construction Equipment. Therefore, the potential

indirect impacts to sensitive habitat areas within proposed project open space would not be considered significant.

### 4.2.5 Wetland Buffers

Current buffers of wetlands as contained within the designated limits of the proposed biological open space areas are a minimum of 50 feet wide for the preserved wetlands (Figures 13a,b). The wetland areas where the riparian habitat is of higher quality (i.e., along the southwestern boundary and southern portions of the site) generally have buffers that exceed 50 feet to better protect the function and value of the preserved wetland. Wetland buffers along the southwest boundary have portions with buffers that range in width between 100 feet and 500 feet, while wetland buffers at the southern part of the site have portions of habitat that have buffers between 90 feet and 100 feet wide, including the wetland creation area.

The provided buffers, in conjunction with the adjacent limit building zone outside of the biological open space limits, will reduce edge effects on these conserved habitats. 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.

## 4.3 Cumulative Impact Analysis

Cumulative impacts from the proposed project were evaluated with regards to past, present, and future projects within the cumulative study area. As described above in Section 3.3, the cumulative study area consists of the local wildlife ecoregion (see Figure 12). Twelve projects were identified for the evaluation of cumulative impacts (see Table 7).

### 4.3.1 Cumulative Impacts to Riparian Habitat or Sensitive Natural Communities

The project would have significant direct impacts to riparian habitat (see Table 4). Cumulative projects 3, 7, 8, and 9 have potential to impact riparian habitat or sensitive natural communities, including coast live oak woodland, freshwater marsh, southern willow scrub, Diegan coastal sage scrub, southern mixed chaparral, and non-native grassland. The project and cumulative projects would to mitigate for the loss of these habitats in accordance with the RPO, and County's Guidelines for Determining Significance – Biological Resources (County of San Diego 2010) at ratios designed to avoid significant cumulative impacts. Thus, significant cumulative impacts to riparian and sensitive natural communities would be avoided.

### 4.3.2 Cumulative Impacts to Jurisdictional Wetlands/Riparian Habitats – USACE, CDFG, County of San Diego

The project would have significant direct impacts to wetlands, riparian habitats, and other waters (i.e., non-wetland waters, streambed) under the jurisdiction of the USACE, CDFW, and County of San Diego (see Table 6). The cumulative projects 3 and 9 have potential to include jurisdictional habitat impacts considering the habitats (i.e., coast live oak woodland, freshwater marsh, southern willow scrub) and drainages present. Nonetheless, the cumulative impacts to riparian areas would not be considered significant because the projects will be required to mitigate impacts in accordance with regulations (e.g., Clean Water Act, Fish and Game Code, RPO) so that a no net loss of wetland/riparian habitat will occur.

### 4.3.3 Cumulative Impacts to Groundwater

As described in Section 4.2.3, the project would not impact groundwater levels or associated groundwater dependent habitat. Thus, the project would not add to a cumulative groundwater impact.

### 4.3.4 Cumulative Indirect Impacts to Riparian Habitat or Sensitive Natural Communities

The proposed project would result in less than significant indirect impacts to riparian habitat and sensitive natural communities. All the cumulative projects contain or are adjacent to sensitive natural communities or riparian habitat except cumulative projects 5 and 6. The potential indirect impacts from the cumulative projects would result from increased human access, predation/competition with domestic animals, invasive plant species, drainage alterations, runoff pollution, noise, and/or night time lighting. All projects would be required to comply with County regulations related to lighting, water quality/hydrology, noise, and wetland buffers (e.g., San Diego Light Pollution Code, County Zoning Ordinance, WPO, Noise Ordinance, RPO). None-the-less, the cumulative indirect impacts could be significant if adequate mitigation or design features are not provided. As the project includes features to avoid indirect impacts, the project contribution to the cumulative indirect impacts would be less than significant.

### 4.3.5 Cumulative - Wetland Buffers

As discussed above in Section 4.2.5, the project includes wetland buffers that are adequate to protect the functions and values of the corresponding wetland. RPO requires that the cumulative projects also provide adequate buffers. Thus, cumulative impacts related to wetland buffers would be less than significant.

## 4.4 Mitigation Measures and Design Considerations

Mitigation for impacts to riparian habitats would include a combination of the following measures: off-site purchase/preservation of habitat within future PAMA lands or suitable lands with native habitat adjacent to the project boundary, conservation of habitats in on-site biological open space, preparation and implementation of on-site/off-site revegetation plans, and revegetation and enhancement of disturbed riparian habitats conserved in on-site biological open space areas. A conceptual wetland revegetation plan has been prepared that discusses the proposed on-site creation and enhancement of wetlands to meet the mitigation requirements (Attachment 16). In addition, a conceptual Resource Management Plan (RMP) for the on-site biological open space areas has been prepared (Attachment 17).

A summary of mitigation acreages for each of these options is presented in Section 8.0 of this report. Other mitigation measures would become part of project design and approvals, including restrictions on lighting, runoff, access, and noise to reduce potential indirect impacts to conserved biological open space due to edge effects.

## 4.5 Conclusions

Mitigation for significant impacts to riparian and natural communities would be accomplished through a combination of off-site purchase and preservation of habitat within future PAMA lands of the draft North County MSCP in Valley Center or suitable lands with native habitat adjacent to the project boundary, on-site conservation, on-site/off-site revegetation, and on-site habitat enhancement. Project design features (e.g., buffers, restrictions on lighting, access, noise, and runoff) would provide additional mitigation to reduce potential indirect impacts from edge effects on these conserved habitats. Wetland buffers are being provided that will reduce the potential for indirect edge effects on the biological open space areas. Limited building zones adjacent to the biological open space will also help reduce the potential for indirect edge effects. Project nighttime lighting adjacent to the biological open space area shall be shielded and directed away from the preserved habitat to reduce any indirect effects of light pollution on the wetland habitat. Signage and fencing will restrict access to the biological open space areas except along designated trails to help minimize any potential future impacts to the wetlands. Restriction on construction activities during the sensitive avian breeding season will reduce the potential for indirect noise impacts while the project is being graded. Storm drain outlets must meet the storm water pollution requirements which will limit any indirect impacts from runoff to the wetland areas.

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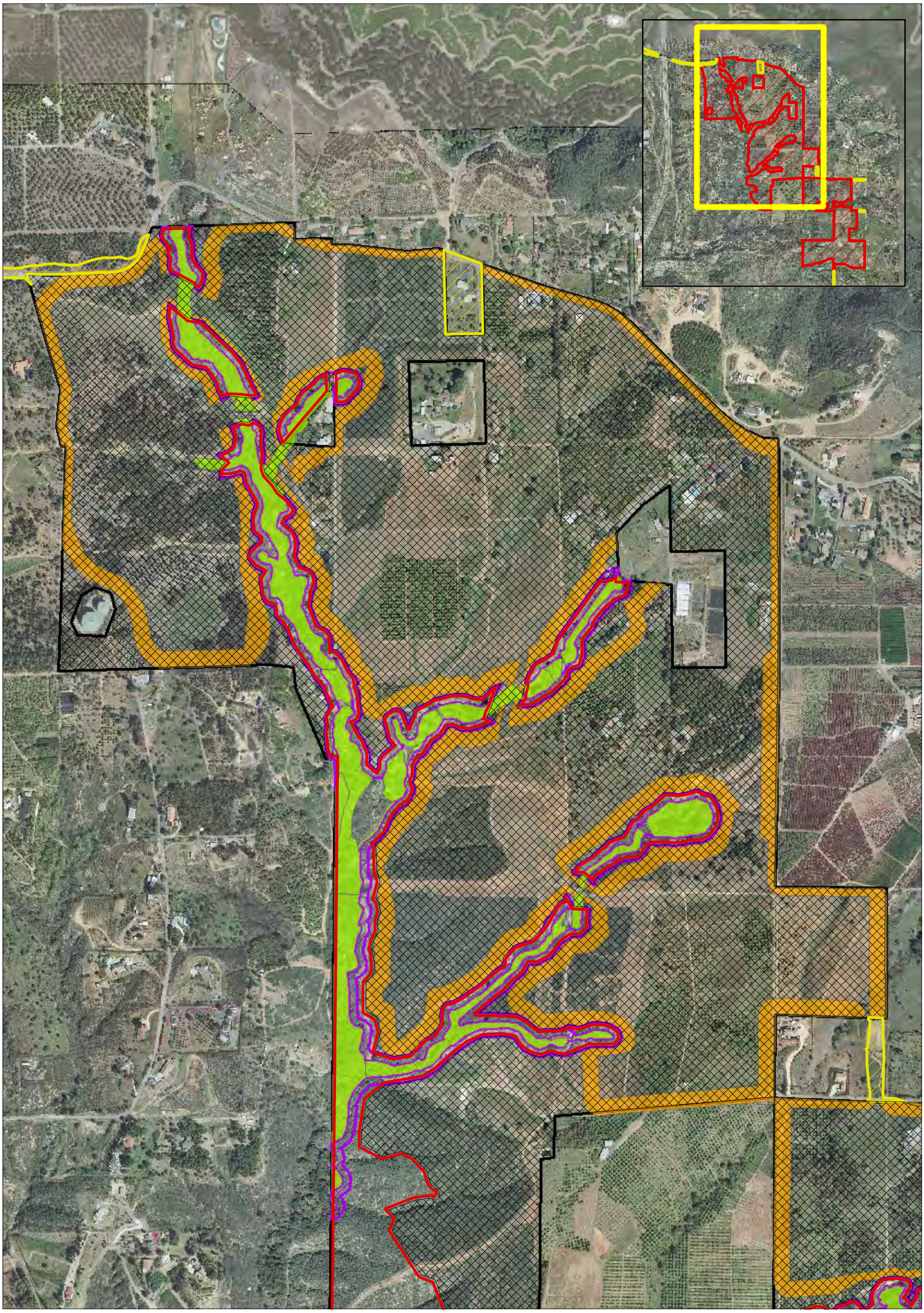


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FIGURE 13a

Lilac Hills Ranch Location of Wetland Buffer

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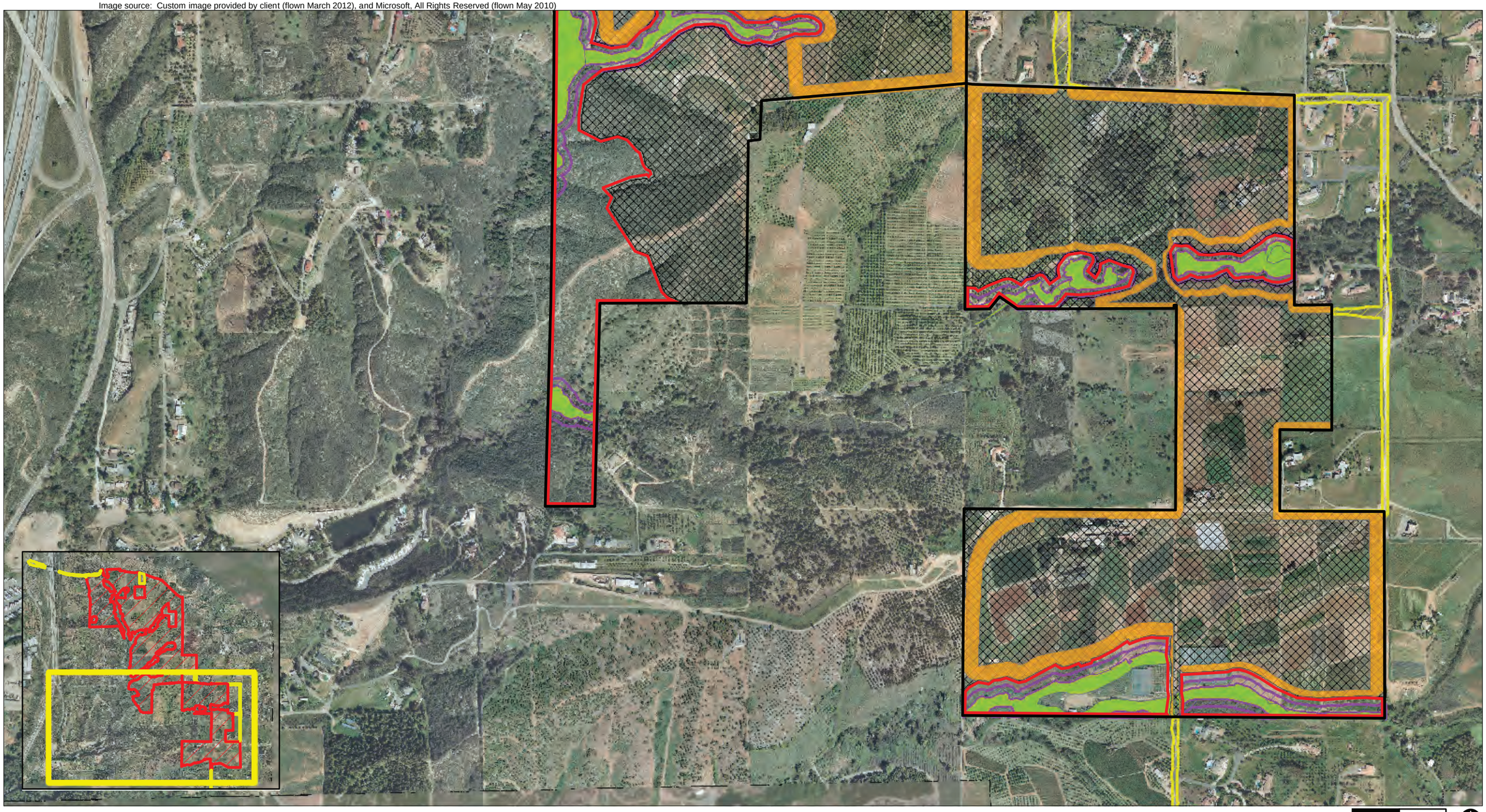


Project Boundary
Development Limits
Off-site Improvement Areas
Biological Open Space Boundary
100-ft. Limited Building Zone
RPO Wetland
50-ft. Buffer

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FIGURE 13b

Lilac Hills Ranch Location of Wetland Buffer

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# 5.0 Jurisdictional Waters and Waterways

The direct and indirect impacts to jurisdictional waters including wetlands are presented in this section. Federal jurisdictional waters and wetlands fall under the authority of the U.S. Army Corps of Engineers per Section 404 of the Clean Water Act. State jurisdictional waters and wetlands fall under the authority of the California Department of Fish and Game per Section 1600 of the Fish and Game Code. County of San Diego wetlands are regulated under the Resource Protection Ordinance.

## 5.1 Guidelines for Determination of Significance

The determination of the significance of impacts to jurisdictional waters and wetlands is made with regard to the following:

> The project would 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 (County of San Diego 2010).

## 5.2 Analysis of Project Effects

### 5.2.1 Direct Impacts to Jurisdictional Waters and Waterways

Direct impacts to federal and state jurisdictional waters and wetlands, and to RPO wetlands would occur from grading of the project (see Table 6; see Figure 11a-d). Impacts to smaller ephemeral jurisdictional waters would be from filling for development. Impacts to larger jurisdictional waters and wetlands associated with intermittent drainages would be primarily from fill associated with road crossings and culverts. Some jurisdictional waters that support riparian vegetation such as coast live oak riparian woodland, southern willow riparian woodland, or southern willow scrub were largely avoided or impacted just from road crossings to minimize impacts.

### 5.2.2 Impacts to Jurisdictional Wetlands/Riparian Habitats – USACE, CDFG, County of San Diego

The project would have direct impacts to wetlands, riparian habitats, and other waters (i.e., non-wetland waters, streambed) under the jurisdiction of the USACE, CDFG, and County of San Diego (see Table 6) due to road crossings and general site grading.

Anticipated impacts would remove vegetation during the grading of the project and result in the placement of fill, structures, road crossings, culverts, and other infrastructure (e.g., utility lines) in wetlands, riparian habitat, and non-wetland waters/streambeds. These impacts would be considered significant.

### 5.2.3 Impacts to Groundwater

The proposed project plans to 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. 2012). 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 recycled water, potable water, and groundwater over the site will have the potential to increase the groundwater recharge rate over the existing condition. No impacts to groundwater-dependent habitat (i.e., wetlands, riparian habitat) are anticipated for this project based on the extraction amount and potential recharge.

### 5.2.4 Potential Indirect Impacts to Jurisdictional Waters and Waterways

The proposed jurisdictional waters and wetland areas to remain in open space within the project area would be along drainage courses that are being avoided (see Figures 13a,b). These jurisdictional waterways are narrow and mostly surrounded by development except along the western and southern boundary of the project. Sources of indirect impacts to these jurisdictional 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. 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. The project would establish wetland buffers that are a minimum of 50 feet and also would include an adjacent 100-foot limited building zone to avoid edge effects to the jurisdictional waters within open space. In addition, the project includes fencing where lots are adjacent to open space and at trail heads prohibiting access to sensitive areas. The project would also comply with County regulations that require on-site nighttime lighting to be shielded and directed away from sensitive habitat such as jurisdictional waters. Through conformance with the WPO, the project's SWPPP would provide BMPs to be used as a filtration system to protect the on-site jurisdictional areas from polluted run-off. Therefore, the potential indirect impacts to jurisdictional waters and wetlands within proposed project open space would not be considered significant.

### 5.2.3 Wetland Buffers

Current buffers of wetlands as contained within the designated limits of the proposed biological open space areas are a minimum of 50 feet wide for the preserved wetlands (see Figure 13a,b). Buffers around the proposed wetland creation area would be a minimum of 90 feet. Some wetland buffer widths exceed 100 feet for limited distances. The provided buffers, in conjunction with the adjacent 100-foot limited building zone outside of the biological open space limits, will reduce potential edge effects on these conserved habitats. A 50-foot buffer is adequate for the protection of the majority of the on-site wetlands because the existing habitats are narrow, have functions and values that have been affected by agricultural activities, and the project includes an additional 100-foot limited building zone that functions as additional buffer. The wetland areas where the riparian habitat is of higher quality (i.e., along the western boundary and southern portions of the site and the proposed wetland creation area) generally have buffers that exceed 50 feet to better protect the function and value of the preserved wetland.

## 5.3 Cumulative Impact Analysis

Cumulative impacts from the proposed project were evaluated with regards to past, present, and future projects within the cumulative study area. As described above in Section 3.3, the cumulative study area consists of the local wildlife ecoregion (see Figure 12). Twelve projects were identified for the evaluation of cumulative impacts within that area (see Table 7).

### 5.3.1 Cumulative Impacts to Jurisdictional Waters and Waterways

The project would have significant direct impacts to jurisdictional waters (see Table 6). Cumulative projects 3 and 9 have potential to impact jurisdictional waters such as coast live oak woodland, freshwater marsh, and southern willow scrub. The project and cumulative projects would to mitigate for the loss of these habitats in accordance with the RPO and Resource Agency wetland permits at ratios designed to avoid significant cumulative impacts. Thus, significant cumulative impacts to jurisdictional waters would be avoided.

### 5.3.2 Cumulative Impacts to Jurisdictional Wetlands/Riparian Habitats – USACE, CDFW, County of San Diego

The project would have significant direct impacts to wetlands, riparian habitats, and other waters (i.e., non-wetland waters, streambed) under the jurisdiction of the USACE, CDFW, and County of San Diego (see Table 6). The cumulative projects 3 and 9 have

potential to include jurisdictional habitat impacts considering the habitats (i.e., coast live oak woodland, freshwater marsh, southern willow scrub) and drainages present. None-the-less, the cumulative impacts to riparian areas would not be considered significant because the projects will be required to mitigate impacts in accordance with RPO and Resource Agency wetland permits so that a no net loss of wetlands/riparian habitat will occur. Thus, cumulative impacts to jurisdictional wetlands and riparian habitats would be less than significant.

### 5.3.3 Cumulative Impacts to Groundwater

As described in Section 5.2.3, the project would not impact groundwater levels or associated groundwater dependent habitat. Thus, the project would not add to a cumulative groundwater impact to jurisdictional waters.

### 5.3.4 Cumulative Indirect Impacts to Jurisdictional Waters and Waterways

The proposed project would result in less than significant indirect impacts to jurisdictional habitat. Cumulative projects 2, 3, 4, and 9 have potential to result in indirect impacts to jurisdictional habitat given their location near potential jurisdictional areas. RPO requires the provision of adequate buffers. As the project includes features to avoid indirect impacts and cumulative projects would also be required to include such features, the project contribution to the cumulative indirect impacts would be less than significant.

### 5.3.5 Cumulative - Wetland Buffers

As discussed above in Sections 5.2.5 and 5.3.4, the project includes wetland buffers that are adequate to protect the functions and values of the corresponding wetland. RPO requires that the cumulative projects also provide adequate buffers. Thus, cumulative impacts related to wetland buffers would be less than significant.

## 5.4 Mitigation Measures and Design Considerations

Mitigation for impacts to federal, state, and County RPO jurisdictional waters and wetlands would be accomplished through the implementation of a combination of the following: preparation and implementation of on-site jurisdictional waters and wetland establishment plans, the restoration and enhancement of disturbed jurisdictional waters and wetlands within conserved open space, and project design features used to reduce the indirect impacts of edge effects on the conserved jurisdictional waters and wetlands (e.g., wetland buffers, restrictions on lighting, access, runoff, and noise). Typical wetland habitats require mitigation ratios of up to 3:1 and RPO requires a minimum 3:1 mitigation ratio for RPO wetland impacts. Mitigation for impacts to wetlands and RPO wetlands

must at a minimum establish (create) wetlands at a 1:1 ratio to achieve a no net loss of wetland area, while the remaining 2:1 may be achieved through restoration and enhancement of disturbed wetlands. Mitigation acreage requirements for wetlands are included for wetland habitat types under Section 8.0 Summary of Project Impacts and Mitigation discussion (e.g., riparian woodlands, riparian scrubs, marsh, disturbed wetlands). On-site wetland mitigation areas are covered in the conceptual RMP prepared for the on-site biological open space areas (see Attachment 17). A conceptual wetland revegetation plan has been prepared for the proposed on-site mitigation areas (see Attachment 16).

## 5.5 Conclusions

Mitigation for significant impacts to jurisdictional waters and wetlands would be accomplished through a combination of on-site and off-site establishment and restoration/enhancement of conserved jurisdictional waters and wetlands. Project design features (e.g., buffers, restrictions on lighting, access, noise, and runoff) will provide mitigation to reduce potential indirect impacts from edge effects on these conserved on-site wetland habitats.

Wetland buffers are being provided that will reduce the potential for indirect edge effects on the biological open space areas. Limited building zones adjacent to the biological open space will also help reduce the potential for indirect edge effects. Project nighttime lighting adjacent to the biological open space area shall be shielded and directed away from the preserved habitat to reduce any indirect effects of light pollution on the wetland habitat. Signage and fencing will restrict access to the biological open space areas except along designated trails to help minimize any potential future impacts to the wetlands. Restriction on construction activities during the sensitive avian breeding season will reduce the potential for indirect noise impacts while the project is being graded. Storm drain outlets must meet the storm water pollution requirements which will limit any indirect impacts from runoff to the wetland areas.

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# 6.0 Wildlife Movement and Nursery Sites

The project site does not support nursery sites for wildlife. Direct and indirect impacts to the local wildlife movement corridors on-site are discussed in this section of the report.

## 6.1 Guidelines for Determination of Significance

The determination of the significance of impacts to wildlife movement and nursery sites is made with regard to the following:

> The project would interfere substantially with the movement of a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (County of San Diego 2010).

## 6.2 Analysis of Project Effects

Direct and indirect impacts from the project would reduce the relatively large patches of native upland vegetation in the project area and increase fragmentation of the riparian woodlands that form blocks 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. Minor impacts to portions of the draft PAMA area along the I-15 corridor from proposed off-site road improvements would not disrupt these wildlife movement areas. However, the project, through mitigation, ~~would~~ could add lands to the future PAMAs when the draft North County MSCP is adopted. The local wildlife corridors identified on-site are not recognized as important regional linkages in the draft North County MSCP. However, the preservation of the local wildlife corridors on-site along the major drainage courses would continue to provide secondary corridor connections between the identified regional linkages to the north (Keys Canyon), south (Moosa Creek), and west (I-15 Escondido–Temecula). These direct and indirect impacts to local wildlife movement would not be considered significant.

### 6.2.1 Impacts to Wildlife Access to Foraging Habitat, Breeding Habitat, and Water Sources Necessary for Reproduction

No barriers will be created that would isolate portions of the existing 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 provides 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 will occur.

### 6.2.2 Impacts to Connectivity of Blocks of Habitat and Local/Regional Wildlife Corridors and Linkages

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 establishment of a minimum 50-foot buffer, in addition to limited building zones adjacent to the buffer, will reduce the potential for indirect edge effects. The movement of wildlife, including large animal movement through the project, can continue along the drainage courses as vegetation cover will be sufficient to provide shelter and cover during movement. Culverts at the roads crossing the local movement corridors will range in size from 18 inches to 54 inches, depending on the particular drainage course. The culverts will be sufficient to allow small terrestrial animals to avoid roads, while the larger terrestrial animals could not use some of the smaller culverts. Avian movement through the site would be minimally affected, as birds would be able to continue to use the riparian woodlands by flying along the habitat corridor.

### 6.2.3 Impacts from Artificial Wildlife Corridors

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

### 6.2.4 Impacts on Wildlife Corridors/Linkages from Noise and Nighttime Lighting

The project has been designed to reduce noise and nighttime lighting to levels that will not significantly impact local wildlife behavior. Lighting adjacent to on-site biological open space areas will be shielded and directed away from the surrounding habitat. Noise will 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.

Impacts from noise and lighting due to potential increases in traffic on the improved West Lilac Road between the project and I-15 are anticipated to be less than significant. Ambient noise levels at the native habitat within this wildlife corridor/linkage are already influenced by the current noise generated by the I-15 traffic and additional significant

increases in noise levels are not expected to occur from the proposed West Lilac Road traffic. The native habitat occurs mostly on steep slopes at this location within the wildlife corridor/linkage and therefore additional nighttime light from vehicle headlights is not expected to pollute the habitat significantly above the existing condition as the light from the headlights would shine above the habitat.

### 6.2.5 Impacts to Wildlife Corridor/Linkage Widths

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 are being preserved in biological open space with little impact to their existing widths. The establishment of a minimum of a 50-foot buffer around the biological open space helps preserve the existing widths of the local wildlife corridor/linkage.

### 6.2.6 Impacts to Visual Continuity of Wildlife Corridors/ Linkages

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

## 6.3 Cumulative Impact Analysis

Cumulative impacts from the proposed project were evaluated with regards to past, present, and future projects within the cumulative study area. As described above in Section 3.3, the cumulative study area consists of the local wildlife ecoregion (see Figure 12). Twelve projects were identified for the evaluation of cumulative impacts (see Table 7). Given the project's limited impact to wildlife corridors as discussed in Section 6.2 above, the cumulative analysis below only addresses overall wildlife movement impacts.

Cumulative projects 1 and 3 are partially located within a future PAMA area that serves as a wildlife corridor along I-15. While those projects may contribute impacts to the regional or local wildlife corridors or linkages, the remaining cumulative projects would have negligible wildlife movement impacts because of their relatively small size and their location away from future PAMAs. The project would not directly or indirectly impact the future PAMA or other areas that serve as a regional wildlife corridor. As such, the project would not contribute to a cumulative regional wildlife corridor impact.

Direct and indirect impacts to wildlife movement corridors on the project site would be limited to local wildlife movement. Given the location of the cumulative projects, only impacts of cumulative projects 1 and 2 could combine with the project to impact local wildlife movement. These general 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. 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, cumulative impacts to wildlife movement corridors from the project would not be considered significant.

## 6.4 Mitigation Measures and Design Considerations

The off-site preservation of native habitats in future PAMA lands of the draft North County MSCP in Valley Center or suitable lands with native habitat adjacent to the project boundary provides an opportunity to enhance and contribute to regional wildlife movement corridors. On-site preservation of local wildlife movement corridors along the major drainage courses would continue to provide secondary linkages to future off-site PAMAs. Wetland buffers of a minimum of 50 feet will be established to reduce edge effects and maintain wildlife movement. Culverts have been sized according to the drainage width and will provide avenues for small walking animals to continue to use the open space areas for movement. Signage and fences will be provided to restrict access to the biological open space areas from human encroachment and help direct larger walking animals to the movement corridors in the open space areas.

## 6.5 Conclusions

No significant impacts to regional wildlife movement corridors would occur from the project. Preservation of off-site native habitat in future PAMA lands of the draft North County MSCP in Valley Center or suitable lands with native habitat adjacent to the project boundary may provide an opportunity to enhance some of the regional wildlife movement corridors through the addition of conserved lands within or adjacent to these corridors and linkages. The on-site preservation of local wildlife movement corridors along the major drainage courses within the biological open space on the project site would continue to provide secondary linkages to future PAMA lands off-site by limiting impacts to existing corridor widths, and reducing the potential for indirect impacts to the local wildlife movement corridors by providing a wetland buffer and limiting the number of road crossing on most movement corridors to just one.

# 7.0 Local Policies, Ordinances, Adopted Plans

The relationship between the proposed project impacts to local policies, ordinances, and adopted plans is discussed in this section of the report. This discussion relates the project to the following: draft North County MSCP, NCCP, RPO, BMO, and Migratory Bird Treaty Act (MBTA).

## 7.1 Guidelines for Determination of Significance

The determination of the significance of compliance with local policies, ordinances, and adopted plans is made with regard to the following:

> The project would conflict with one or more local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (County of San Diego 2010).

## 7.2 Analysis of Project Effects

### 7.2.1 Southern California Coastal Sage Scrub NCCP Process Guidelines

The project area is located within the draft North County MSCP area (County of San Diego 2009; see Figure 5). It is adjacent to draft PAMA that are located to north (Keys Canyon) and west (I-15 corridor). Impacts to coastal sage scrub would be considered significant and subject to approval of a Habitat Loss Permit and compliance with impact minimization/mitigation guidelines contained in the NCCP.

#### Habitat Loss Permit Findings

1. The habitat loss does not exceed the 5 percent guideline.

   Impacts to coastal sage scrub on-site (19.4 acres) and off-site (1.3 acres) will not exceed the 5 percent guideline for the County of San Diego.

2. The habitat loss will not preclude connectivity between areas of high habitat values.

The coastal sage scrub habitat on the site is relatively small in size and is not part of the most dense coastal sage scrub habitat in the region. The on-site habitat lies well to the south of larger, dense habitat within Keys Canyon. Coastal sage scrub habitat to the south of this dense habitat area is present in scattered small patches that do not form an important linkage corridor for coastal sage scrub. The on-site habitat does not support any sensitive target or endemic species. Therefore, the coastal sage scrub habitat present within the Lilac Hills Ranch project area is ranked as "low potential for long-term conservation" based on the NCCP flow chart for habitat evaluation.

Coastal sage scrub habitat within or adjacent to proposed off-site improvements is next to existing roads and the I-15 freeway. Impacts to these coastal sage scrub areas would be minimal and along the edges of the road right-of-ways. The off-site coastal sage scrub habitat within the proposed improvement areas is not anticipated to support any sensitive target or endemic species.

Impacts to the coastal sage scrub habitat on-site and off-site would not foreclose the ability to provide connectivity between high habitat value areas to the north in Keys Canyon or to the west along the I-15 habitat corridor. There are only a few scattered small patches of coastal sage scrub habitat in-between the on-site habitat and the high value habitat areas to the north and west.

3. The habitat loss will not preclude or prevent the preparation of the subregional NCCP.

   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 will 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.

4. The habitat loss has been minimized and mitigated to the maximum extent possible in accordance with Section 4.3 of the NCCP Guidelines.

   The coastal sage scrub habitat on the project site occurs as relatively small isolated patches that are not occupied by any sensitive species. The on-site coastal sage scrub habitat is not part of the draft PAMA areas, while portions of the coastal sage scrub habitat adjacent to off-site improvement areas near I-15 are within draft PAMA areas. Impacts to the habitat have been avoided and minimized where coastal sage scrub is adjacent to wetland habitat. Only minor impacts to coastal sage scrub from off-site improvements is anticipated along the edges of the West Lilac Road and the intersections near Gopher Canyon Road. Mitigation for all project impacts to coastal sage scrub will be accomplished by the off-site preservation of coastal sage scrub habitat at a 2:1 ratio within a

proposed future PAMA area of the draft North County MSCP in Valley Center or suitable lands with native habitat adjacent to the project boundary.

5. The habitat loss will not appreciably reduce the likelihood of survival and recovery of the listed species in the wild.

   The on-site coastal sage scrub habitat to be impacted does not support any sensitive species, is not part of any draft PAMA, and is not part of any biological resource core area. The coastal sage scrub habitat within off-site improvement areas is within the draft PAMA area along the I-15 corridor, but it is unlikely that listed species occur in the narrow habitat areas within the proposed improvement areas. Therefore, the loss of habitat will not appreciably reduce the likelihood of survival and recovery of any listed species in the wild.

6. The habitat loss is incidental to otherwise lawful activities.

   The proposed loss of coastal sage scrub will be incidental and part of a lawful activity.

### 7.2.2 Impacts to 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 will 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.

### 7.2.3 RPO Wetlands and Sensitive Habitat Lands

The proposed project would have impacts to RPO wetlands. Impacts to on-site RPO wetlands were largely avoided and those that were unavoidable are primarily due to road crossings that are needed to provide the secondary access required for fire and emergency access. The impacts at these crossings have been minimized by designing roads to their minimum allowable widths and locating crossings where there are existing roads or the riparian habitat is narrow and disturbed (see RPO findings in Attachment 15). Off-site impacts to RPO wetlands are due to the required widening of existing roads. The roads will be widened to the minimum necessary to meet the required traffic standards. These impacts are discussed in detail above and are all considered significant. Implementation of mitigation measures are anticipated to bring the project into compliance with RPO.

### 7.2.4 Mitigation and NCCP Guidelines

The proposed mitigation for impacts to coastal sage scrub habitat will be in accordance with Section 4.l3 of the NCCP process guidelines. Mitigation for all project impacts to coastal sage scrub will be accomplished by the off-site preservation of coastal sage scrub habitat at a 2:1 ratio within a proposed future PAMA area of the draft North County MSCP in Valley Center or suitable lands with native habitat adjacent to the project boundary.

### 7.2.5 Conformance to Applicable Habitat Conservation Plans, Habitat Management Plans, Special Area Management Plans, Watershed Plans, or Similar Regional Planning Efforts

The project area is not part of any specific conservation or management plans with the exception of the NCCP. Compliance with the NCCP is anticipated after appropriate mitigation measures are implemented.

### 7.2.6 Conformance with the Draft North County MSCP: Biological Resource Core Areas

The project area is not located in or part of any identified biological resource core area within the draft North County MSCP. Portions of some of the off-site improvement areas occur within draft PAMA areas identified along the I-15 corridor; however, impacts to coastal sage scrub habitat will be minimal and confined to areas adjacent to existing roads and intersections. These minor impacts to a biological resource core area would not be considered significant as the impacts are relatively small acreages adjacent to existing roads; however, the loss of coastal sage scrub habitat in general would be considered significant.

### 7.2.7 Habitat Connectivity, Movement Corridors, and Habitat Linkages

The proposed project would not interrupt any substantial habitat connectivity or linkage to biological resource core areas due to the extent of agricultural lands on-site and in the surrounding areas. Local movement corridors would be impeded by development of the project, but these are considered not significant as discussed in Section 6.2. Establishment of adequate habitat buffers would help reduce edge effects on conserved lands in on-site biological open space areas.

### 7.2.8 Narrow Endemic Species and Listed Species

The proposed project would not have impacts to any narrow endemic species or to any core populations of any narrow endemic species. The project would not result in any impacts to any federal or state listed species.

### 7.2.9 Migratory Birds and Bald/Golden Eagles

The project has the potential to impact migratory birds, their nests, and or eggs if impacts to habitat occur during the breeding season as defined under the MBTA. Any impacts nesting birds would be considered significant but may be avoided or minimized through avoidance of the breeding season, pre-construction surveys that identify nests to be avoided, and working around identified breeding areas until the young have fledged.

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. These eagles typically nest on cliffs or in deciduous and coniferous trees at higher elevations (USFWS 2010). The nearest known sighting of a golden eagle is approximately 4.5 miles to the northeast near Pala Mountain and around the San Luis Rey river valley (State of California 2007d). It is not known if nesting activity was observed at this location. However, the proposed project is over 4,000 feet from this known occurrence and, therefore, would not likely impact golden eagle habitat. Therefore, no impacts to these species of eagle are anticipated to occur.

## 7.3 Cumulative Impact Analysis

Cumulative impacts from the proposed project were evaluated with regards to past, present, and future projects within the cumulative study area. As described above in Section 3.3, the cumulative study area consists of the local wildlife ecoregion (see Figure 12). Twelve projects were identified for the evaluation of cumulative impacts (see Table 7). Review of aerial photography of these sites show that the majority of the impacts from these projects will be to agricultural lands (e.g., orchards, row crops) and little to no impacts to native upland or riparian habitats (see Figure 12).

The proposed Lilac Hills Ranch project will 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. It is assumed that the present and future projects within the cumulative impact analysis area will comply with all local ordinances, policies, and adopted plans as well. As such, a cumulative analysis of each policy and plan discussed in Section 7.2 is not necessary. Cumulative impacts from the proposed Lilac Hills Ranch project would not be considered significant after implementation of the approved mitigation measures.

## 7.4 Mitigation Measures and Design Considerations

Mitigation measures to be implemented to compensate for significant direct and indirect impacts to riparian habitat, natural communities, and jurisdictional waters and wetlands will involve one or a combination of the following measures: off-site purchase of habitat, on-site habitat conservation, on-site/off-site re-vegetation and enhancement, and project design features to reduce potential edge effects (e.g., habitat buffers). These mitigation measures are consistent with mitigation required under the local policies, ordinances, and adopted plans.

## 7.5 Conclusions

Mitigation measures to be implemented to compensate for significant direct and indirect impacts to riparian habitat, and jurisdictional waters and wetlands would be consistent with mitigation required under the local policies, ordinances, and adopted plans.

# 8.0 Summary of Project Impacts and Mitigation

A summary of the proposed direct impacts to habitat/vegetation communities and required mitigation acreages is provided in Table 8. A summary of the proposed mitigation measures for the project is provided in Table 9. 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 of the draft North County MSCP in Valley Center or suitable lands with native habitat adjacent to the project boundary. A conceptual Resource Management Plan for the proposed off-site upland mitigation areas has been prepared that contains the criteria for site selection and management guidelines (Attachment 18).

Mitigation for impacts to riparian/wetland habitats would be achieved 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 (Figures 14a,b). Potential on-site wetland mitigation may provide up to 6 acres of creation and 12 acres of restoration/enhancement mitigation. Biological open space areas on-site will be dedicated with each phase of development (Table 10 and Figure 15). Open space dedication is phased to include adjacent open space areas in the phase of development that borders the phase under construction to reduce the chance for inadvertent impacts to occur to the resources in these open space areas. Open space fencing and signage would be implemented upon dedication of the open space area.

Mitigation for upland and wetland habitats would also compensate for the loss of habitats that support special status wildlife species by providing conserved habitat within future PAMA lands of the draft North County MSCP in Valley Center or suitable lands with native habitat adjacent to the project boundary that may also support these wildlife species. The on-site biological open space areas and associated buffers would help reduce potential edge effects and provide for the maintenance of local secondary wildlife movement corridors. Enhancement of the habitats in the biological open space areas achieved by the removal of non-native invasive plant species and the establishment of native plant species will also benefit wildlife on-site and local wildlife movement. Implementation of resource management plans 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.

Mitigation for potential impacts to nesting raptors and other general birds would be achieved through either avoidance of impacts to vegetation during the nesting season, and/or pre-construction surveys and avoidance of identified nests during construction.

Indirect impacts associated with edge effects from development would be mitigated through project design features that reduce the effects of noise, lighting, invasive species, drainage, and access to biological open space areas. 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 drainages will be treated according to storm water pollution standards prior to discharge into any open space areas. Signage and fences will be provided to reduce access to the biological open space areas, and trails will be restricted to existing roads. Implementation of Best Management Practices during and after construction would help reduce potential edge effects. Establishment of buffers of a minimum of 50 feet around the biological open space areas will help mitigate edge effects on these conserved lands.

**TABLE 8**
**HABITAT/VEGETATION COMMUNITIES, IMPACTS, AND MITIGATION**

| Habitat/Vegetation Community | Existing (acres) | Impacts (acres) | Off-site[3] Impacts (acres) | Mitigation Ratio | Mitigation Required (acres) | Preserved On-site/ Impact Neutral (acres) | Off-site Mitigation (acres) |
|---|---|---|---|---|---|---|---|
| Coast live oak woodland | 3.6 | 0.3 | 0 | 3:1 | 1.2 | 3.3 | 1.2 |
| Coastal sage scrub | 19.6 | 17.0 | 0.1 | 2:1 | 34.2 | 2.6 | 34.2 |
| Disturbed coastal sage scrub | 2.9 | 2.6 | 0 | 2:1 | 5.2 | 0.3 | 5.2 |
| Disturbed coastal/valley freshwater marsh | 0.6 | 0.1 | 0 | 3:1 | 0.3 | 0.5 | 0.3[1] |
| Eucalyptus woodland | 1.7 | 1.0 | 0 | None | None | 0.7 | None |
| Southern coast live oak riparian woodland | 22.5 | 1.1 | 0 | 3:1 | 3.3 | 21.4 | 3.3[1] |
| Disturbed southern coast live oak woodland | 1.9 | 0.5 | 0 | 3:1 | 1.5 | 1.4 | 1.5[1] |
| Southern mixed chaparral | 75.4 | 49.4 | 0 | 0.5:1 | 24.5 | 26.0 | 24.5 |
| Disturbed southern mixed chaparral | 6.0 | 4.9 | 0 | 0.5:1 | 2.4 | 1.1 | 2.4 |
| Southern willow riparian woodland | 4.7 | 0.5 | 0 | 3:1 | 1.5 | 4.2 | 1.5[1] |
| Southern willow scrub | 6.1 | 0.3 | 0 | 3:1 | 0.9 | 5.8 | 0.9[1] |
| Disturbed southern willow scrub | 0.3 | 0.3 | 0 | 3:1 | 0.9 | 0 | 0.9[1] |
| Mule fat scrub | 0.1 | 0.1 | 0 | 3:1 | 0.3 | 0 | 0.3[1] |
| Open water – freshwater | 0.5 | 0.5 | 0 | 3:1 | 1.5 | 0 | 1.5[1] |
| Disturbed wetland | 0.4 | 0.1 | 0 | 3:1 | 0.3 | 0.3 | 0.3[1] |
| Extensive agriculture – row crops | 90.5 | 84.5 | 0 | None | None | 6.0 | None |
| Intensive agriculture – nursery | 9.2 | 6.2 | 0 | None | None | 3.0 | None |
| Vineyard | 0.7 | 0.6 | 0 | None | None | 0.1 | None |
| Orchard | 291.9 | 276.4 | 1.2 | None | None | 15.5 | None |
| Disturbed habitat | 44.0 | 34.8 | 2.4 | None | None | 9.2 | None |
| Developed | 25.7 | 22.8 | 21.1 | None | None | 2.9 | None |
| TOTAL | 608.3 | 505.0 | 24.8 | | 78.0 | 104.1 | 78.0[2] |

[1]A portion of this mitigation acreage may be achieved on-site. Total on-site mitigation acreage not yet determined.
[2]Total off-site mitigation requirement may be lower when on-site mitigation opportunities are fully quantified.
[3]Additional off-site impacts from Rodriquez Road improvements, if required, would result in mitigation requirements of 0.06 acre of coastal live oak woodland, 0.09 acre of southern coastal live oak riparian woodland, 0.04 acre of non-native grassland, and 0.08 acre of coastal sage scrub.

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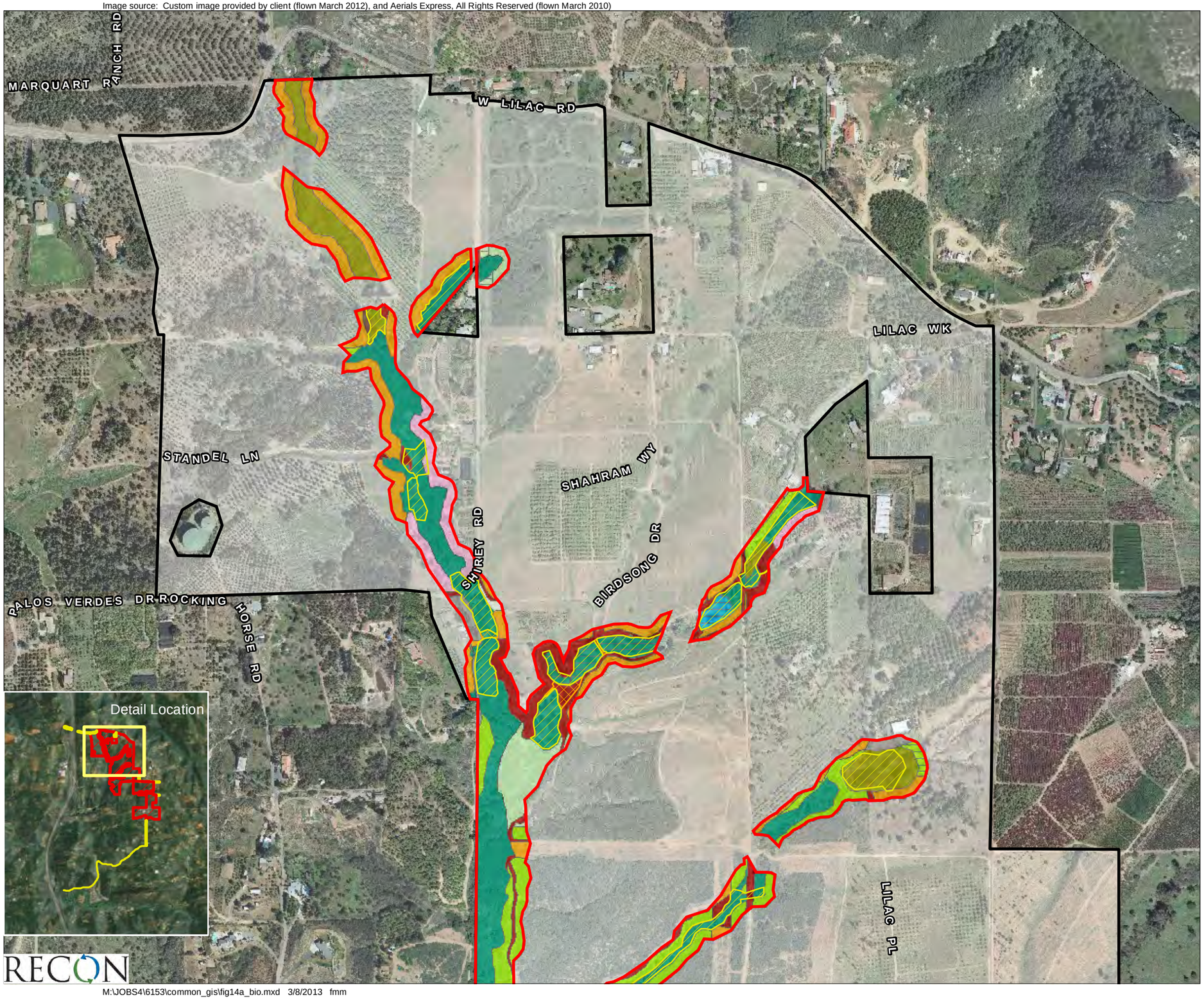


- Project Boundary
- Biological Open Space Boundary
- Wetland Creation
- Wetland Enhancement

**Vegetation Communities and Landcover**

- Coastal Sage Scrub (32520)
- Disturbed Coastal Sage Scrub (32520)
- Disturbed Coastal/Valley Freshwater Marsh (52410)
- 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
- Southern Willow Riparian Woodland
- Intensive Agriculture - Nursery
- Orchard (18100)
- Vinyard (18100)
- Disturbed Habitat (11300)
- Developed (12000)

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FIGURE 14a

Vegetation Communities/Land Cover Types within Biological Open Space and Location of Potential Wetland Mitigation

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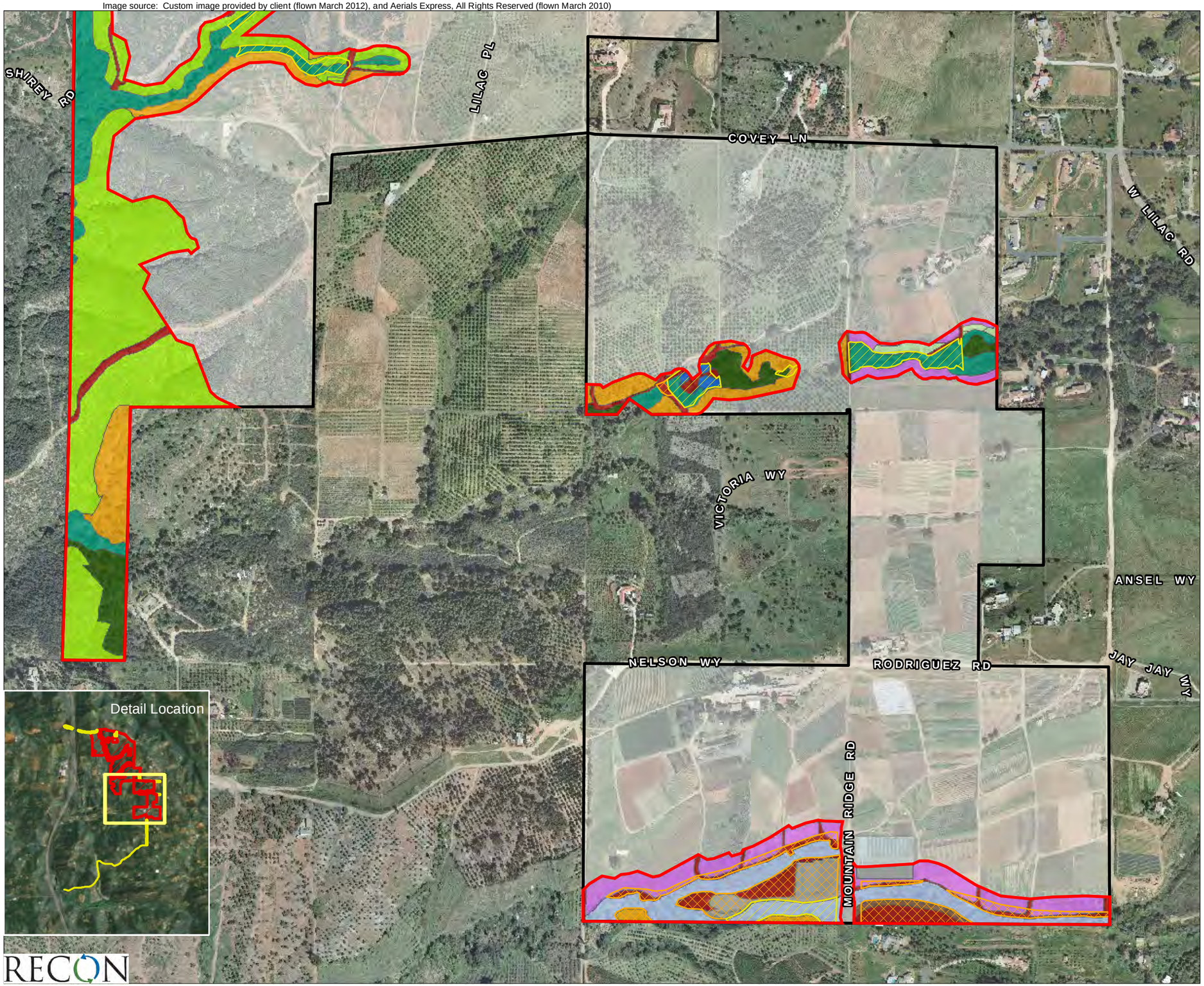


- Project Boundary
- Biological Open Space Boundary
- Wetland Creation
- Wetland Enhancement

**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)
- Extensive Agriculture - Row Crops
- Orchard (18100)
- Disturbed Habitat (11300)
- Developed (12000)

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FIGURE 14b

Vegetation Communities/Land Cover Types within Biological Open Space and Location of Potential Wetland Mitigation

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**TABLE 9**
**SUMMARY OF MITIGATION MEASURES**

| Proposed Mitigation | Level of Significance after Mitigation | Guideline Number(s) |
|---|---|---|
| Biological Open Space/Conservation Easement of Fee Title Transfer of Open Space | Below significant | 4.2; 4.3; 4.4 |
| Off-site Purchase or Preservation of Habitat | Below significant | 4.1B |
| Preparation and Implementation of Revegetation Plans | Below significant | 4.2B; 4.3; 4.5C |
| Revegetation and/or Enhancement of Open Space | Below significant | 4.2B; 4.3; 4.5C |
| Resource Management Plan | Below significant | 4.2B; 4.3; 4.5C |
| Breeding Season Avoidance | Below significant | 4.1H; 4.2D; 4.4D |
| Permanent Fencing/walls | Below significant | 4.1H; 4.2D; 4.5C |
| Temporary Fencing | Below significant | 4.1H; 4.2D; 4.4D |
| Evidence of Federal or State Permits | Below significant | 4.3 |
| Restrictions on Lighting, Runoff, Access, and/or Noise | Below significant | 4.1H; 4.2D; 4.4D |
| Biological Monitoring | Below significant | 4.1H; 4.2D; 4.4D |
| Wetland Buffer | Below significant | 4.2E; 4.3; 4.4D |
| Limited Building Zone Easement | Below significant | 4.1H; 4.2D; 4.4D |

**TABLE 10**
**LILAC HILLS RANCH ON-SITE BIOLOGICAL OPEN SPACE DEDICATION BY DEVELOPMENT PHASE**

| Development Phase | Biological Open Space Area Dedication* | Acres |
|---|---|---|
| 1 | OS1 | 1.4 |
| 1 | OS2 | 3.2 |
| 1 | OS3 | 1.3 |
| 1 | OS4 | 0.7 |
| 1 | OS5 | 0.1 |
| 1 | OS6 | 8.9 |
| 2 | OS7 | 9.0 |
| 2 | OS9 | 3.6 |
| 3 | OS8 | 44.2 |
| 3 | OS10 | 4.8 |
| 4 | OS11 | 5.3 |
| 4 | OS12 | 4.3 |
| 5 | OS13 | 10.8 |
| 5 | OS14 | 0.3 |
| 5 | OS15 | 6.2 |
| TOTAL | | 104.1 |

*See Figure 15 for locations of biological open space areas.

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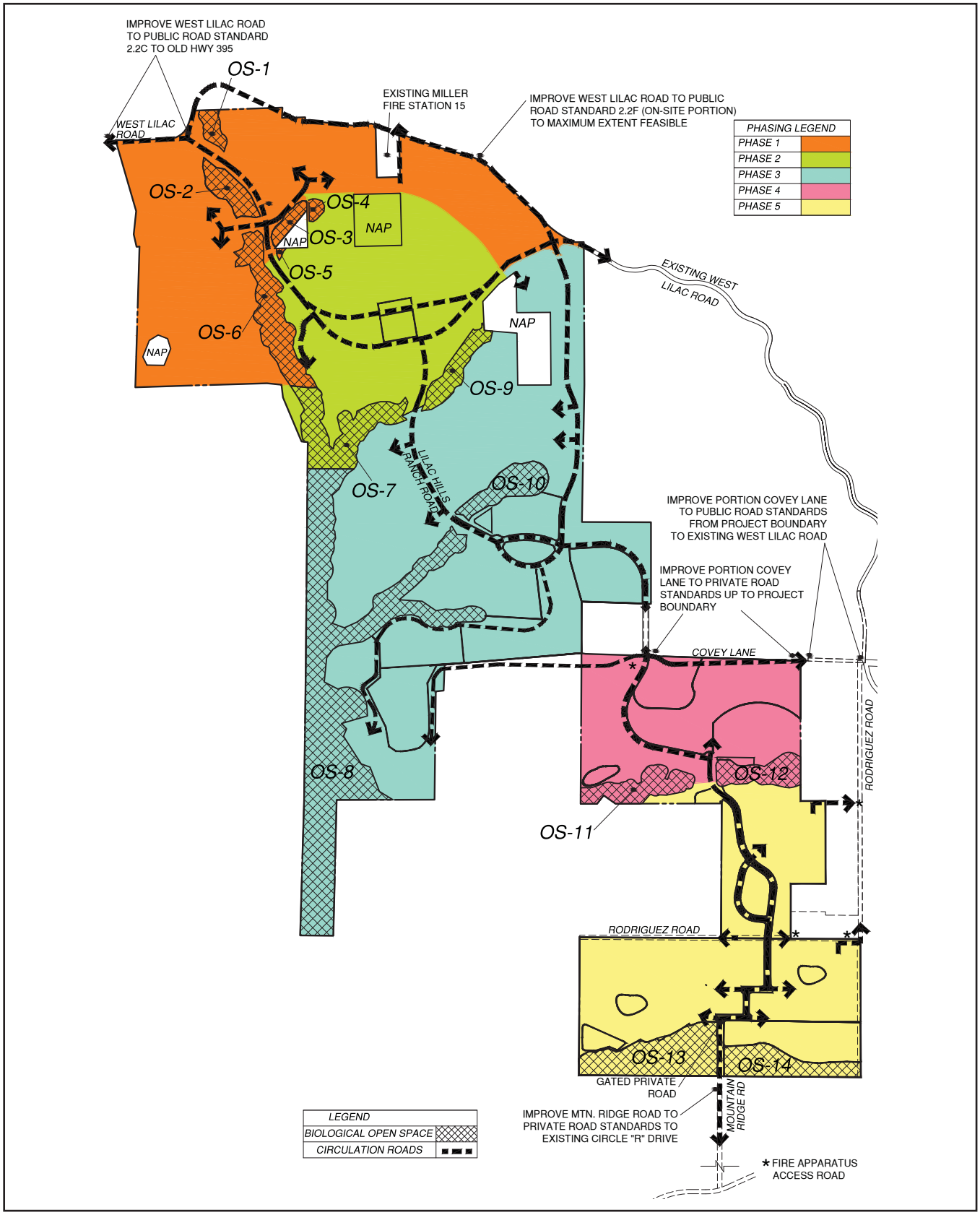


FIGURE 15
Biological Open Space Plan

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1997b Draft Recovery Plan for the Stephen's Kangaroo Rat (*Dipodomys stephensi*). USFWS, Region 1, Portland, Oregon. April 1997. 71p.

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# 10.0 List of Preparers

| | |
|---|---|
| Gerald A. Scheid | Biologist, Author – on San Diego County List for Biological Resources |
| Anna Bennett | Biologist |
| Alex Fromer | Biologist |
| Megan Lahti | Biologist |
| John Lovio | Biologist |
| Erin McKinney | Biologist |
| Frank McDermott | GIS Supervisor |
| Sean Bohac | GIS Specialist |
| Chris Nixon | GIS Specialist |
| Stacey Higgins | Production Specialist |
| Eija Blocker | Production Specialist |

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# ATTACHMENTS

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# ATTACHMENT 1

# Post-Survey Notification of Focused Surveys for Least Bell's Vireo for the I-15/395 Master Planned Community MPA

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July 7, 2014

Ms. Stacey Love
U.S. Fish and Wildlife Service
Carlsbad Field Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

Reference: Post-Survey Notification of Focused Surveys for Least Bell's Vireo for a Portion of the I-15/395 Master Planned Community Major Pre-application (RECON Number 6153)

Dear Ms. Love:

The purpose of this letter is to notify the U.S. Fish and Wildlife Service (USFWS) of the focused survey results for least Bell's vireo (*Vireo bellii pusillus*) conducted on a portion of the I-15/395 Master Planned Community Major Pre-Application (project site). The approximately 7.4-acre survey area covers suitable riparian habitat that was not previously surveyed in 2011. The approximately 518.3-acre project site is located within Valley Center, east of Interstate 15, south and west of West Lilac Road, and north of Elmond Drive and Megan Terrace. The project is in the eastern half of Sections 24 and 25, Township 10 South and Range 3 West; and Sections 19 and 30 in Township 10 South and Range 2 West on the Pala and Bonsall 7.5-minute quadrangles in San Diego County (U.S. Geological Survey 1996a, 1996b; Figures 1 and 2).

**Methods**

RECON biologist Gerry Scheid (USFWS permit number TE-797665) conducted focused surveys for least Bell's vireo according to USFWS survey guidelines (USFWS 2001), which require eight surveys at least 10 days apart between April 10 and July 31. Surveys were conducted by walking meandering transects throughout and adjacent to areas of suitable least Bell's vireo habitat. Approximately 7.4 acres of potentially suitable habitat for least Bell's vireo were covered by these surveys (Figure 3). All bird species observed during the surveys were noted. Survey dates, times, and weather conditions are provided in Table 1.

**TABLE 1**
**PACIFIC HIGHLANDS RANCH – UNITS 23-28 LEAST BELL'S VIREO**
**SURVEY DATES, TIMES, PERSONNEL, AND CONDITIONS**

| Date | Survey | Personnel | Beginning Conditions | Ending Conditions | Acres Surveyed Per Hour |
|---|---|---|---|---|---|
| 4/10/14 | LBVI #1 | G.Scheid | 8:00 A.M.; 75˚ F; winds 0-2 mph; 0% cloud cover | 11:30 A.M.; 82˚ F; winds 0–1 mph; 0% cloud cover | 2.1 |
| 4/21/14 | LBVI #2 | G.Scheid | 8:00 A.M.; 62˚F; winds 0–5 mph; 0% cloud cover | 10:45 A.M.; 68˚F; winds 0–5 mph; 0% cloud cover | 3.7 |
| 5/1/14 | LBVI #3 | G.Scheid | 8:00 A.M.; 78˚ F; winds 0–15 mph; 100% cloud cover | 10:30 A.M.; 84˚ F; winds 0–15 mph; 95% cloud cover | 2.9 |
| 5/12/14 | LBVI #4 | G.Scheid | 7:00 A.M.; 6˚ F; winds 0–10 mph; 0% cloud cover | 9:00 A.M.; 76˚ F; winds 0–10 mph; 0% cloud cover | 3.7 |
| 5/22/14 | LBVI #5 | G.Scheid | 7:00 A.M.; 62° F; winds 0–1 mph; 100% cloud cover | 10:00 A.M.; 64° F; winds 0-1 mph; 100% cloud cover | 2.5 |
| 6/2/14 | LBVI #6 | G.Scheid | 8:00 A.M.; 65˚F; winds 0–3 mph;, 50% cloud cover | 10:30 A.M.; 75˚F; winds 0–3 mph; 50% cloud cover | 2.9 |
| 6/11/14 | LBVI #7 | G.Scheid | 8:00 A.M.; 60° F; winds 0–1 mph; 0% cloud cover | 10:00 A.M.; 70° F; winds 0–1 mph; 0% cloud cover | 3.7 |
| 6/23/14 | LBVI #8 | G.Scheid | 8:00 A.M.; 55° F; winds 0–1 mph; 100% cloud cover | 10:00 A.M.; 62° F; winds 0–1 mph; 0% cloud cover | 3.7 |

LBVI = least Bell's vireo; ° F = degrees Fahrenheit; mph = miles per hour; % = percent

## Existing Conditions

Approximately 4.2 acres of the survey area is vegetated with southern willow riparian woodland habitat dominated by arroyo willow (*Salix lasiolepis*), Goodding's black willow (*S. gooddingii*), and mule fat (*Baccharis salicifolia*). This habitat in the northwest portion of the survey area is dense, and contains medium- to large-sized willows with scattered mule fat shrubs. The understory is limited due to the dense overstory and supports wild grape (*Vitis girdiana*) and non-native grasses. Southern willow woodland in the eastern portion of the survey area is a mature woodland with a highly disturbed understory.

The remaining 3.2 acres of the survey area is vegetated with southern coast live oak riparian woodland that is dominated by coast live oak (*Quercus agrifolia*) trees with an open understory of poison oak (*Toxicodenron diversilobum*) and wild grape.

## Survey Results

No least Bell's vireo were observed within the southern willow riparian woodland or southern coast live oak riparian woodland in the survey area. Other sensitive birds observed in the survey area included Cooper's hawk (*Accipiter cooperii*), turkey vulture (*Cathartes aura*), and yellow warbler (*Dendroica petechia*). The locations of these sensitive bird species are shown in Figure 4. The brood parasitic species brown-headed cowbird (*Molothrus ater*) was also detected on-site during the surveys (see Figure 4).

Birds commonly observed during the surveys included American crow (*Corvus brachyrhynchos hesperis*), Anna's hummingbird (*Calypte anna*), black-headed grosbeak (*Pheucticus melanocephalus maculatus*), bushtit (*Psaltriparus minimus*), California towhee (*Pipilo crissalis*), common yellowthroat (*Geothlypis trichas*), house finch (*Carpodacus mexicanus frontalis*), lesser goldfinch (*Carduelis psaltria hesperophilus*), spotted towhee (*Pipilo maculatus*), and western scrub-jay (*Aphelocoma californica*). Additionally, a red-shouldered hawk (*Buteo lineatus elegans*) and a red-tailed hawk (*Buteo jamaicensis*) were observed flying over the survey area.

If you have any questions concerning the contents of this notification letter, please contact me at 619-308-9333 ext. 171.

Sincerely,

Gerry Scheid
Senior Biologist

GAS:sjg

cc: Jon Rilling, Accretive Investments, Inc.

**Reference Cited**

U.S. Fish and Wildlife Service (USFWS)
2001 Least Bell's Vireo Survey Guidelines. January 19.

U.S. Geological Survey (USGS)
1996a Bonsall Quadrangle, CA 7.5-minute series topographic map.

1996b Pala Quadrangle, CA 7.5-minute series topographic map.

**I certify that the information in this survey report and attached exhibits fully and accurately represents my work.**

July 7, 2014
Gerry Scheid — Date
Permit Number TE-797665


Project Location

FIGURE 1

Regional Location

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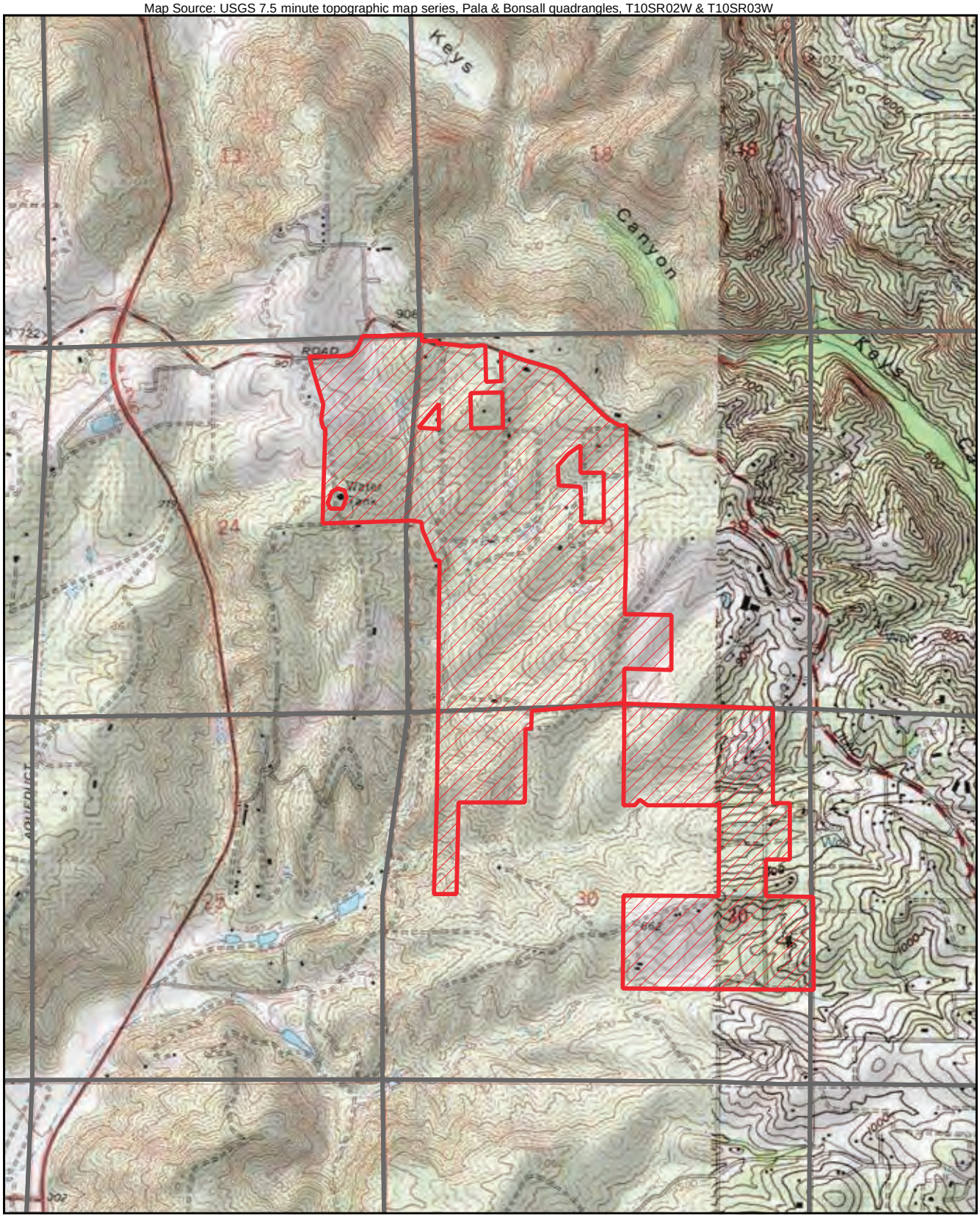
Map Source: USGS 7.5 minute topographic map series, Pala & Bonsall quadrangles, T10SR02W & T10SR03W




0 Feet 2,000

Project Boundary

FIGURE 2

Project Location on USGS Map

RECON

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Image source: SanGIS (flown May 2012)

Current Project Boundary

2011 Project Boundary

2011 LBV Survey Area

2014 LBV Survey Area

**Vegetation Communities**

Southern Coast Live Oak Riparian Woodland (61310)

Disturbed Southern Coast Live Oak Riparian Woodland (61310)

Southern Willow Scrub (63320)

Disturbed Southern Willow Scrub (63320)

Southern Willow Riparian Woodland (62500)

0 Feet 850

FIGURE 3

Least Bell's Vireo Survey Area
and Suitable Habitat Locations

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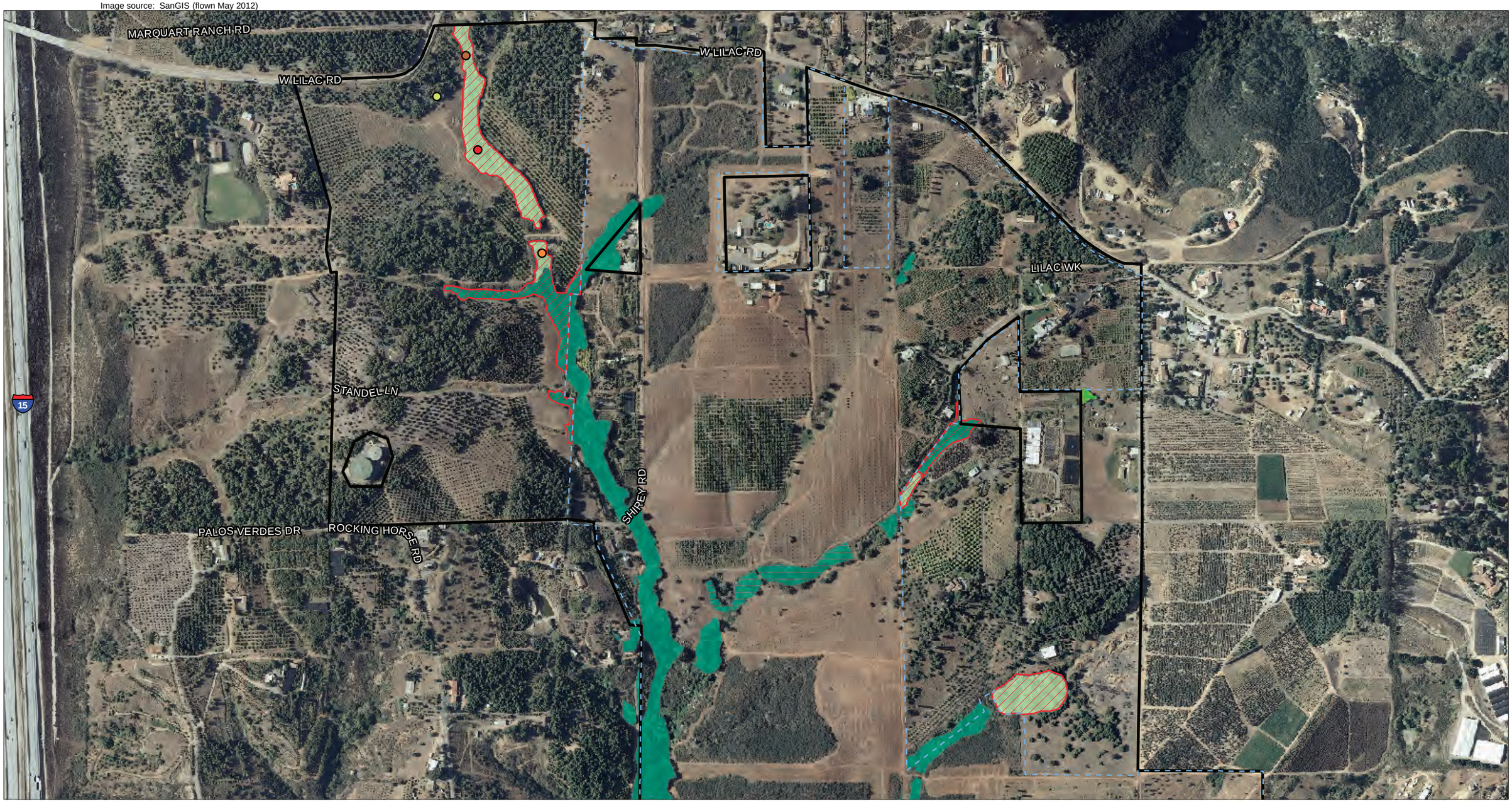
Image source: SanGIS (flown May 2012)




2011 Project Boundary

Current Project Boundary

**Year**

2014 LBV Survey Area

**Vegetation Communities and Landcover Type**

Southern Coast Live Oak Riparian Woodland (61310)

Disturbed Southern Coast Live Oak Riparian Woodland (61310)

Southern Willow Scrub (63320)

Disturbed Southern Willow Scrub (63320)

Southern Willow Riparian Woodland (62500)

**Brood Parasite**

Brown-headed Cowbird

**Sensitive Riparian Birds**

Cooper's Hawk 2014

Turkey Vulture 2014

Yellow Warbler 2014

0 Feet 500

RECON

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FIGURE 4

2014 Least Bell's Vireo Survey Area and Locations of Sensitive Species

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September 29, 2011

Ms. Erin McCarthy
U.S. Fish and Wildlife Service
Carlsbad Field Office
6010 Hidden Valley Road, Suite 101
Carlsbad, CA 92011-4219

Reference: Post-Survey Notification of Focused Surveys for Least Bell's Vireo for the I-15/395 Master Planned Community MPA (RECON Number 6153)

Dear Ms. McCarthy:

The purpose of this letter is to notify the U.S. Fish and Wildlife Service (USFWS) of the focused survey results for the least Bell's vireo (*Vireo bellii pusillus*) conducted on the I-15/395 Master Planned Community Major Pre-Application (MPA) (project site). This approximately 518.3-acre project site is located within Valley Center, east of Interstate 15, south and west of West Lilac Road, and north of Elmond Drive and Megan Terrace. The project is in the eastern half of Sections 24 and 25, Township 10 South and Range 3 West; and Sections 19 and 30 in Township 10 South and Range 2 West on the Pala and Bonsall 7.5-minute quadrangles in San Diego County (U.S. Geological Survey 1996a and 1996b; Figures 1 and 2).

**Methods**

RECON biologists Erin McKinney and Megan Lahti (USFWS permit number TE-797665) conducted focused surveys for least Bell's vireo according to USFWS survey guidelines (USFWS 2001), which requires eight surveys at least 10 days apart between April 10 and July 31. Surveys were conducted by walking meandering transects throughout and adjacent to areas of suitable least Bell's vireo habitat. Approximately 27.86 acres of potentially suitable habitat for the least Bell's vireo is located within the project site (Figure 3). All bird species observed during the surveys were noted. Survey dates, times, and weather conditions are provided in Table 1.

**Existing Conditions**

The survey area supports approximately 19.59 acres of southern coast live oak riparian woodland, 1.82 acres of disturbed southern coast live oak riparian woodland, 6.21 acres of southern willow scrub, and 0.24 acre of disturbed southern willow scrub habitats for a total of approximately 27.86 acres of survey area (see Figure 3).

Dominant species within the southern coast live oak riparian woodland and disturbed southern coast live oak riparian woodland include black willow (*Salix gooddingii*), coast live oak (*Quercus agrifolia*), poison oak (*Toxicodendron diversilobum*), red willow (*Salix laevigata*), and wild grape (*Vitis girdiana*).

Dominant species within the southern willow scrub and disturbed southern willow scrub include arroyo willow (*Salix lasiolepis*), black willow, mule fat (*Baccharis salicifolia*), narrow-leaved willow (*Salix exigua*), and red willow.

**TABLE 1**
**SURVEY DATES, TIMES, AND WEATHER CONDITIONS**

| Date | Survey | Personnel | Beginning Conditions | Ending Conditions | Acres Surveyed Per Hour |
|---|---|---|---|---|---|
| 5/17/11 | LBV #1 | Erin McKinney<br>Megan Lahti | 6:30 A.M.; 50˚ F; winds 0–1 mph; 90% cloud cover | 9:30 A.M.; 53˚ F; winds 0–1 mph; 100% cloud cover | 4.64 |
| 5/27/11 | LBV #2 | Gerry Scheid<br>Peter Dolan | 7:30 A.M.; 57˚ F; winds 0 mph; 0% cloud cover | 10:30 A.M.; 79˚ F; winds 0-1 mph; 0% cloud cover | 4.64 |
| 6/6/11 | LBV #3 | Erin McKinney<br>Megan Lahti | 7;30 A.M.; 52˚ F; winds 0–1 mph; 5% cloud cover | 11:00 A.M.; 70˚ F; winds 0–3 mph; 15% cloud cover | 3.98 |
| 6/16/11 | LBV #4 | Gerry Scheid<br>Megan Lahti | 7:15 A.M.; 60˚ F; winds 0 mph; 100% cloud cover | 11:00 A.M.; 70˚ F; winds 3-5 mph; 45% cloud cover | 3.71 |
| 6/27/11 | LBV #5 | Erin McKinney<br>Megan Lahti | 7:30A.M.; 61° F; winds 0-1 mph; 0% cloud cover | 11;00 A.M.; 75° F; winds 0-2 mph; 0% cloud cover | 3.98 |
| 7/7/11 | LBV #6 | Erin McKinney<br>Megan Lahti | 7:50 A.M.; 72˚F; winds 0–1 mph;, 0% cloud cover | 11:00 A.M.; 90˚F; winds 0–1 mph;, 0% cloud cover | 4.39 |
| 7/18/11 | LBV #7 | Erin McKinney<br>Megan Lahti | 6:20 A.M.; 51° F; winds 0-1 mph; 0% cloud cover | 10:00 A.M.; 76° F; winds 0-1 mph; 0% cloud cover | 4.18 |
| 7/28/11 | LBV #8 | Erin McKinney<br>Megan Lahti | 7:15 A.M.; 61° F; winds 0-1 mph; 100% cloud cover | 9:55 A.M.; 71° F; winds 0-2 mph; 2% cloud cover | 4.92 |

LBV = least Bell's vireo; ° F = degrees Fahrenheit; mph = miles per hour; % = percent

**Survey Results**

No least Bell's vireo were observed on or directly adjacent to the project site. In addition, a Cooper's hawk (*Accipiter cooperii*), turkey vulture (*Cathartes aura*), yellow-breasted chat (*Icteria virens auricollis*), yellow warbler (*Dendroica petechia*), western bluebird (*Sialia mexicana occidentalis*), and white-tailed kite (*Elanus leucurus*) were detected. The locations of these sensitive bird species are shown in Figure 3. The brood parasitic species brown-headed cowbird (*Molothrus ater*) was also detected on-site during the surveys (see Figure 3).

Birds commonly observed during the surveys included American crow (*Corvus brachyrhynchos hesperis*), Anna's hummingbird (*Calypte anna*), black-headed grosbeak (*Pheucticus melanocephalus maculatus*), bushtit (*Psaltriparus minimus*), California towhee (*Pipilo crissalis*), common yellowthroat (*Geothlypis trichas*), house finch (*Carpodacus mexicanus frontalis*), lesser goldfinch (*Carduelis psaltria hesperophilus*), spotted towhee (*Pipilo maculatus*), and western scrub-jay (*Aphelocoma californica* ). Additionally, a red-shouldered hawk (*Buteo lineatus elegans*) and a red-tailed hawk (*Buteo jamaicensis*) were observed flying over the survey area.

If you have any questions concerning the contents of this notification letter, please contact me.

Sincerely,

Erin McKinney
Associate Restoration Biologist

cc: Jon Rilling, The Accretive Group of Companies
Rikki Schroeder, RMA Consultants

**References Cited**

U.S. Geological Survey (USGS)
1996a Bonsall Quadrangle, CA 7.5-minute series topographic map.

1996b Pala Quadrangle, CA 7.5-minute series topographic map.

U.S. Fish and Wildlife Service (USFWS)
2001 Least Bell's Vireo Survey Guidelines. January 19.

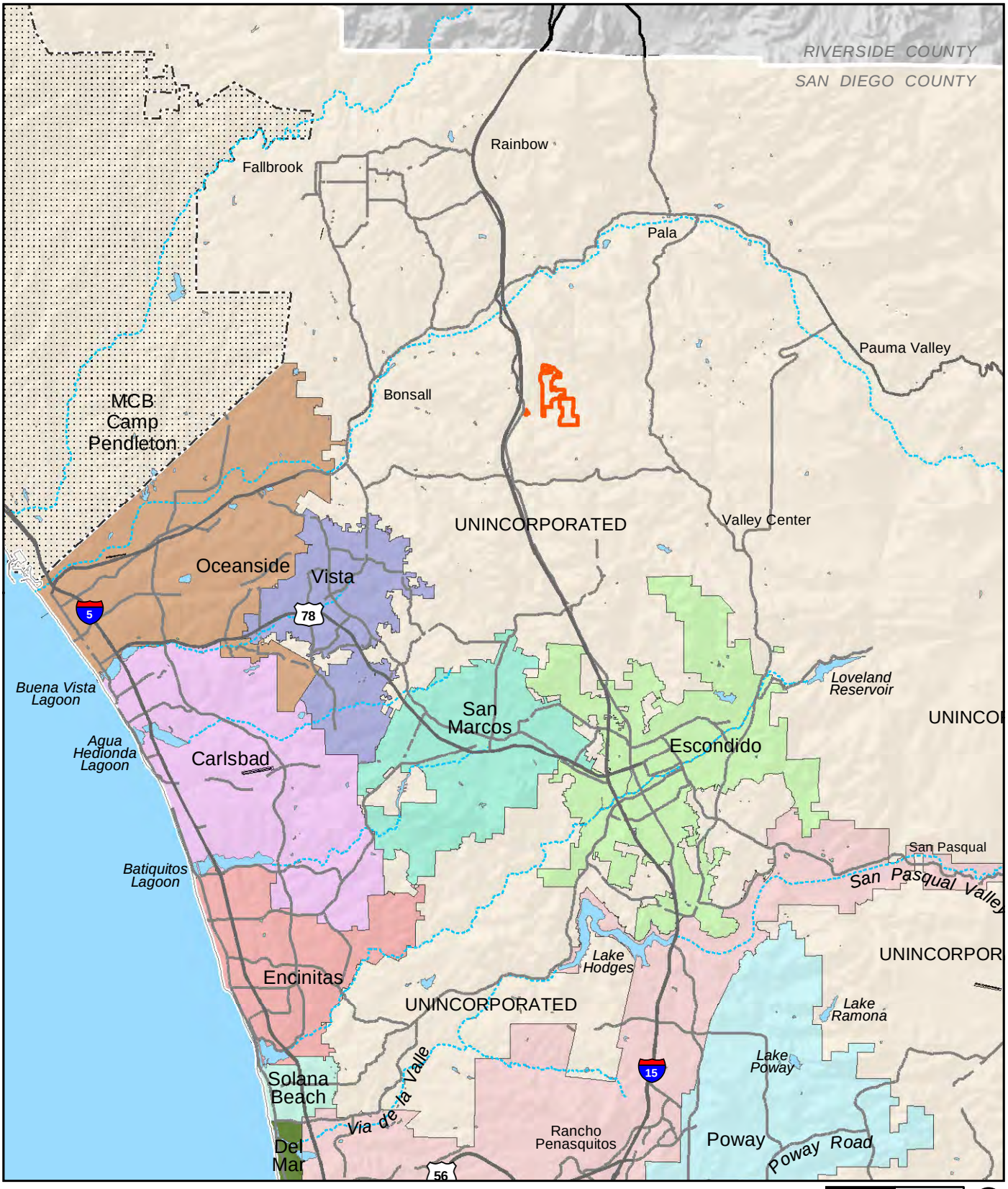
**I certify that the information in this survey report and attached exhibits fully and accurately represents my work.**

**Unavailable for signature** **9/29/11**
Peter Dolan Date
Permit Number TE-797665

**Unavailable for signature** **9/29/11**
Megan Lahti Date
Permit Number TE-797665

Erin McKinney **9/29/11**
Erin McKinney Date
Permit Number TE-797665

Gerry Scheid **9/29/11**
Gerry Scheid Date
Permit Number TE-797665




Project Boundary

FIGURE 1

Regional Location

RECON

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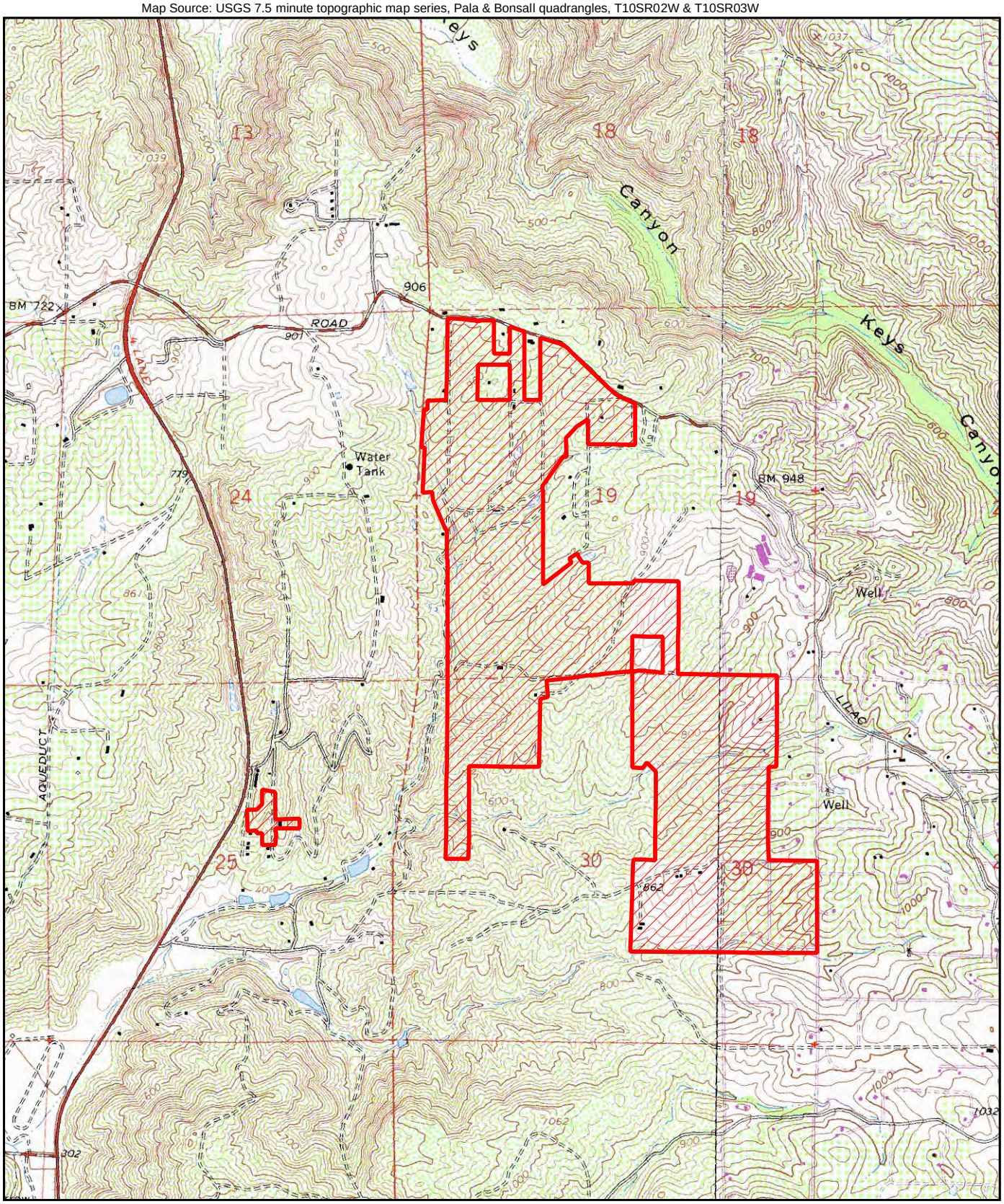
LL-32444-E

DRAFT

Map Source: USGS 7.5 minute topographic map series, Pala & Bonsall quadrangles, T10SR02W & T10SR03W




Project Boundary

RECON

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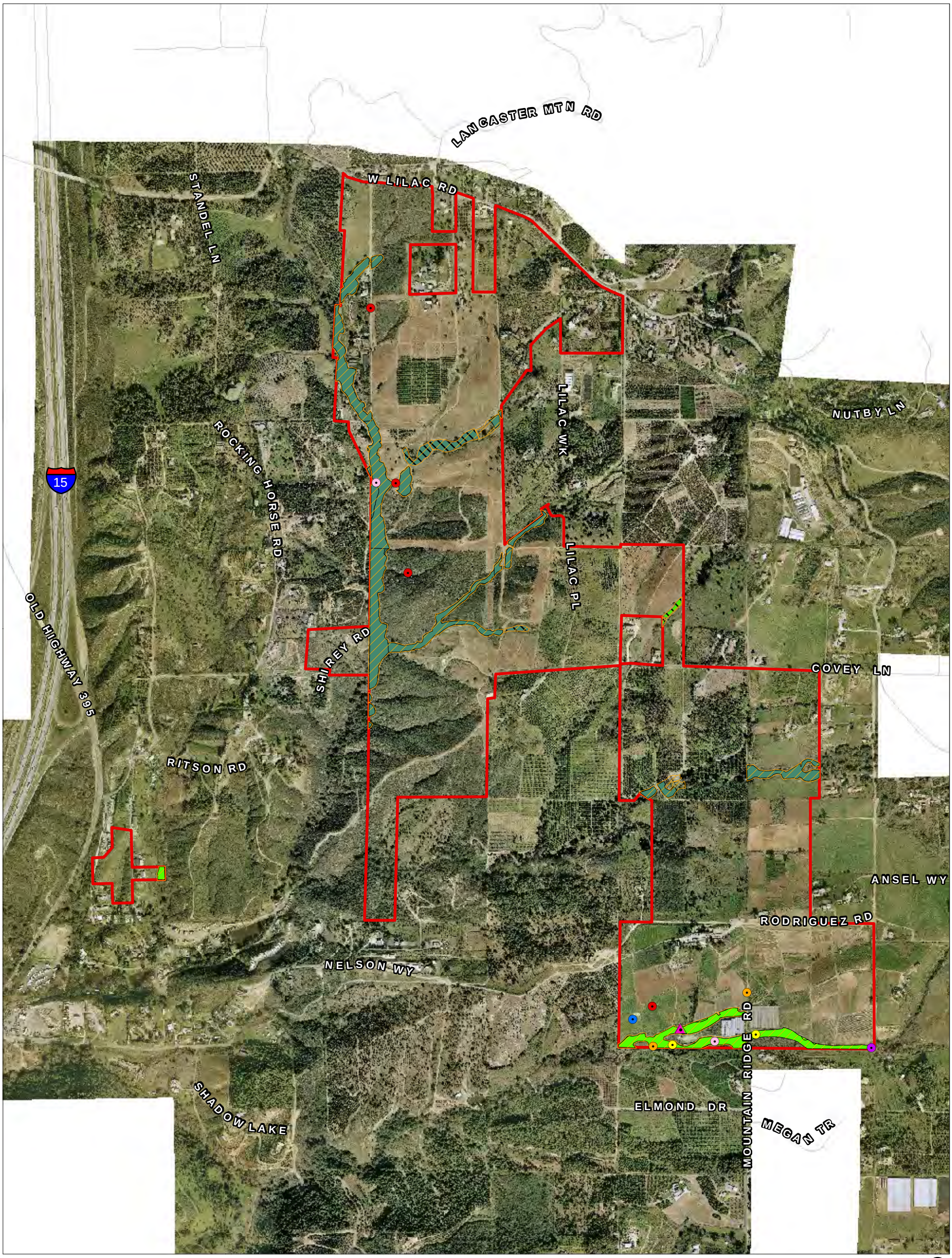
FIGURE 2

Project Location on USGS Map

LL-32444-E

DRAFT




Survey Area Boundary

LBV Survey Area

**Vegetation Communities**

- Southern Coast Live Oak Riparian Woodland (61310)
- Disturbed Southern Coast Live Oak Riparian Woodland (61310)
- Southern Willow Scrub (63320)
- Disturbed Southern Willow Scrub (63320)

**Sensitive Species**

- Cooper's Hawk
- Turkey Vulture
- Western Bluebird
- White-tailed Kite
- Yellow-breasted Chat
- Yellow Warbler

**Brood Parasitic Species**

- Brown-headed Cowbird

FIGURE 3

Least Bell's Vireo Survey Area
and Biological Resources

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LL-32444-E

DRAFT

# ATTACHMENT 2

# Post-Survey Notification of Focused Surveys for Coastal California Gnatcatcher I-15/395 Master Planned Community MPA

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F 512.474.1849

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September 28, 2011

Ms. Erin McCarthy
U.S. Fish and Wildlife Service
Carlsbad Field Office
6010 Hidden Valley Road, Suite 101
Carlsbad, CA 92011-4219

Reference: Post-Survey Notification of Focused Surveys for Coastal California Gnatcatcher for the I-15/395 Master Planned Community Major Pre-Application (RECON Number 6153)

Dear Ms. McCarthy:

This letter describes the results of focused surveys for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) conducted on the I-15/395 Master Planned Community Major Pre-Application (MPA) (project site). This approximately 518.3-acre project site is located within Valley Center, east of Interstate 15, south and west of West Lilac Road, and north of Elmond Drive and Megan Terrace. The project is in the eastern half of Sections 24 and 25, Township 10 South and Range 3 West; and Sections 19 and 30 in Township 10 South and Range 2 West on the Pala and Bonsall 7.5-minute quadrangles in San Diego County (U.S. Geological Survey 1996a and 1996b; Figures 1 and 2).

**Methods**

RECON biologists Erin McKinney (permit number TE-797665) and Megan Lahti (under supervision) conducted the focused surveys for coastal California gnatcatcher in July and August 2011. The survey area consisted of approximately 21.70 acres of coastal sage scrub within the project site. The surveys were conducted in accordance with U.S. Fish and Wildlife Service (USFWS) survey protocol (1997). All bird species observed during the surveys were noted. Survey dates, times, and weather conditions are provided in Table 1.

**Existing Conditions**

Total estimated acreage of survey area for coastal California gnatcatcher within the project site was originally assessed at approximately 70 acres of suitable coastal sage scrub habitat. We reduced the suitable coastal sage scrub acreage to 21.70 acres after reassessing the suitable habitat on the project site during subsequent surveys (Figure 3). The approximately 21.70-acre area supports both coastal sage scrub and disturbed coastal sage scrub. Dominant species within the coastal sage scrub and disturbed coastal sage scrub include California sagebrush (*Artemisia californica*), common encelia (*Encelia californica*), and California buckwheat (*Eriogonum fasciculatum*).

**TABLE 1**
**SURVEY DATES, TIMES, AND WEATHER CONDITIONS**

| Date | Surveyors | Beginning Conditions | Ending Conditions | Acres/Hour |
|---|---|---|---|---|
| 7/26/11 | Erin McKinney<br>Megan Lahti | 6:40 A.M.; 58°F; winds 0-1 mph; clear conditions, 100% cloud cover | 11:45 A.M.; 86°F; winds 0–1 mph; clear conditions, 0% cloud cover | 2.14 |
| 8/2/11 | Erin McKinney<br>Megan Lahti | 6:45 A.M.; 71°F; winds 0–1 mph; clear conditions, 60% cloud cover | 10:30 A.M.; 88°F; winds 0–1 mph; clear conditions, 1% cloud cover | 2.89 |
| 8/9/11 | Erin McKinney<br>Megan Lahti | 6:40 A.M.; 56°F; winds 0-1 mph; cloudy conditions, 100% cloud cover | 10:35 A.M.; 76°F; winds 1–4 mph; clear conditions, 45% cloud cover | 2.77 |

°F = degrees Fahrenheit; mph = mile per hour; % = percent

**Survey Results**

No coastal California gnatcatchers were observed on or directly adjacent to the project site.

Birds commonly observed during the surveys included Anna's hummingbird (*Calypte anna*), California towhee (*Pipilo crissalis*), bushtit (*Psaltriparus minimus minimus*), Bewick's wren (*Thyromanes bewickii*), western scrub-jay (*Aphelocoma californica*), and wrentit (*Chamaea fasciata henshawi*). In addition, a white-tailed kite (*Elanus leucurus*), a red-shouldered hawk (*Buteo lineatus elegans*), and a red-tailed hawk (*Buteo jamaicensis*) were observed flying over the survey area.

If you have any questions concerning the contents of this notification letter, please contact me.

Sincerely,

Erin McKinney
Associate Restoration Biologist

EJM:sh

cc: John Rilling, The Accretive Group of Companies
Rikki Schroeder, RMA Consultants

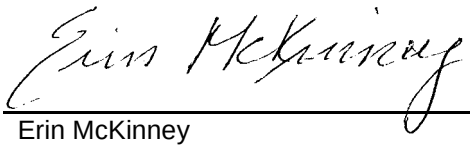
**References Cited**

U.S. Geological Survey (USGS)
1996a Bonsall, CA Quadrangle 7.5-minute series topographic map.

1996b Pala, CA Quadrangle 7.5-minute series topographic map.

U.S. Fish and Wildlife Service (USFWS)
1997 Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol.

**I certify that the information in this survey report and attached exhibits fully and accurately represents my work.**

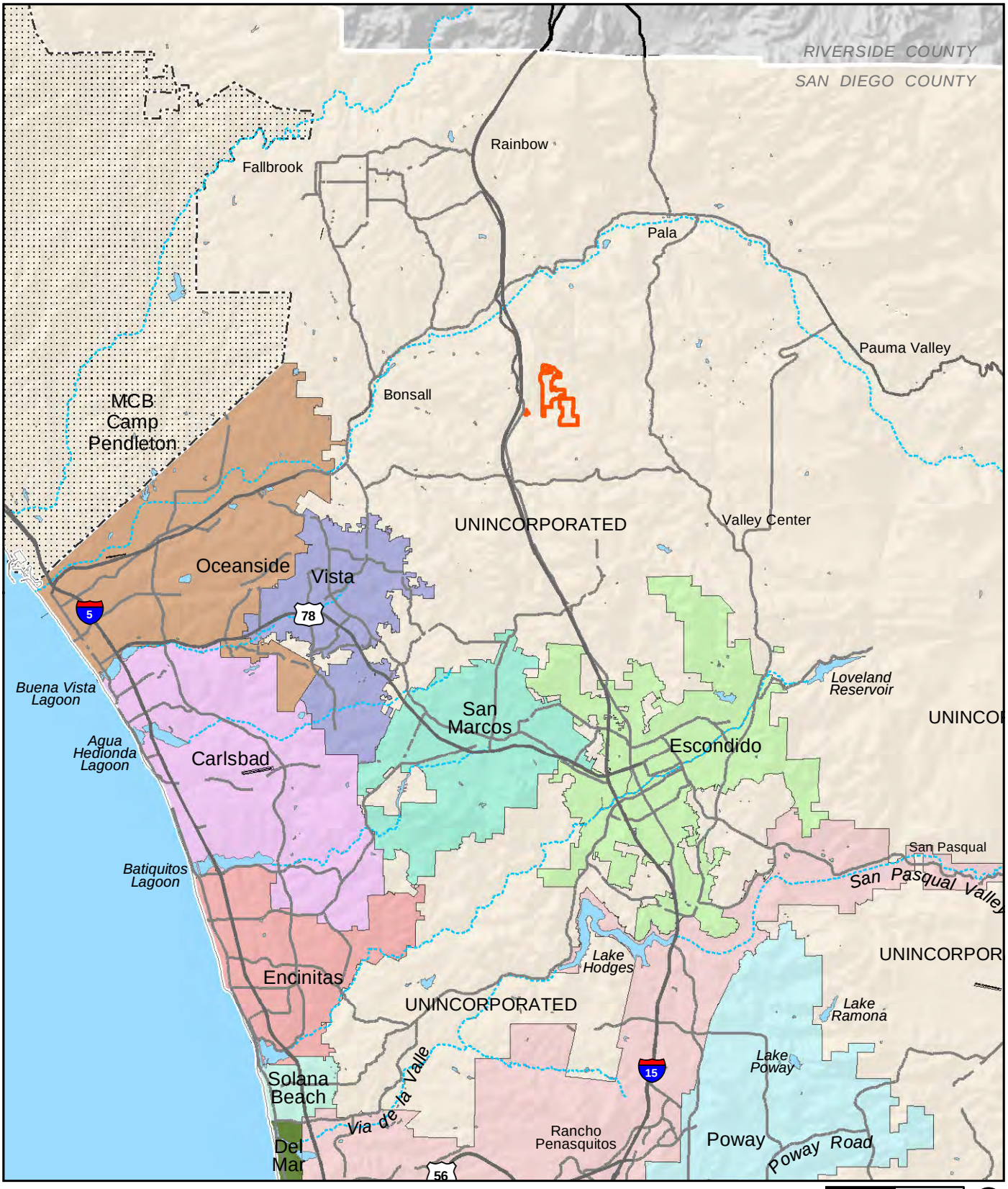


**9/28/11**

Erin McKinney — Date
Permit Number TE-797665

**Unavailable for signature** **9/28/11**

Megan Lahti — Date
Permit Number TE-797665




Project Boundary

FIGURE 1

Regional Location

RECON

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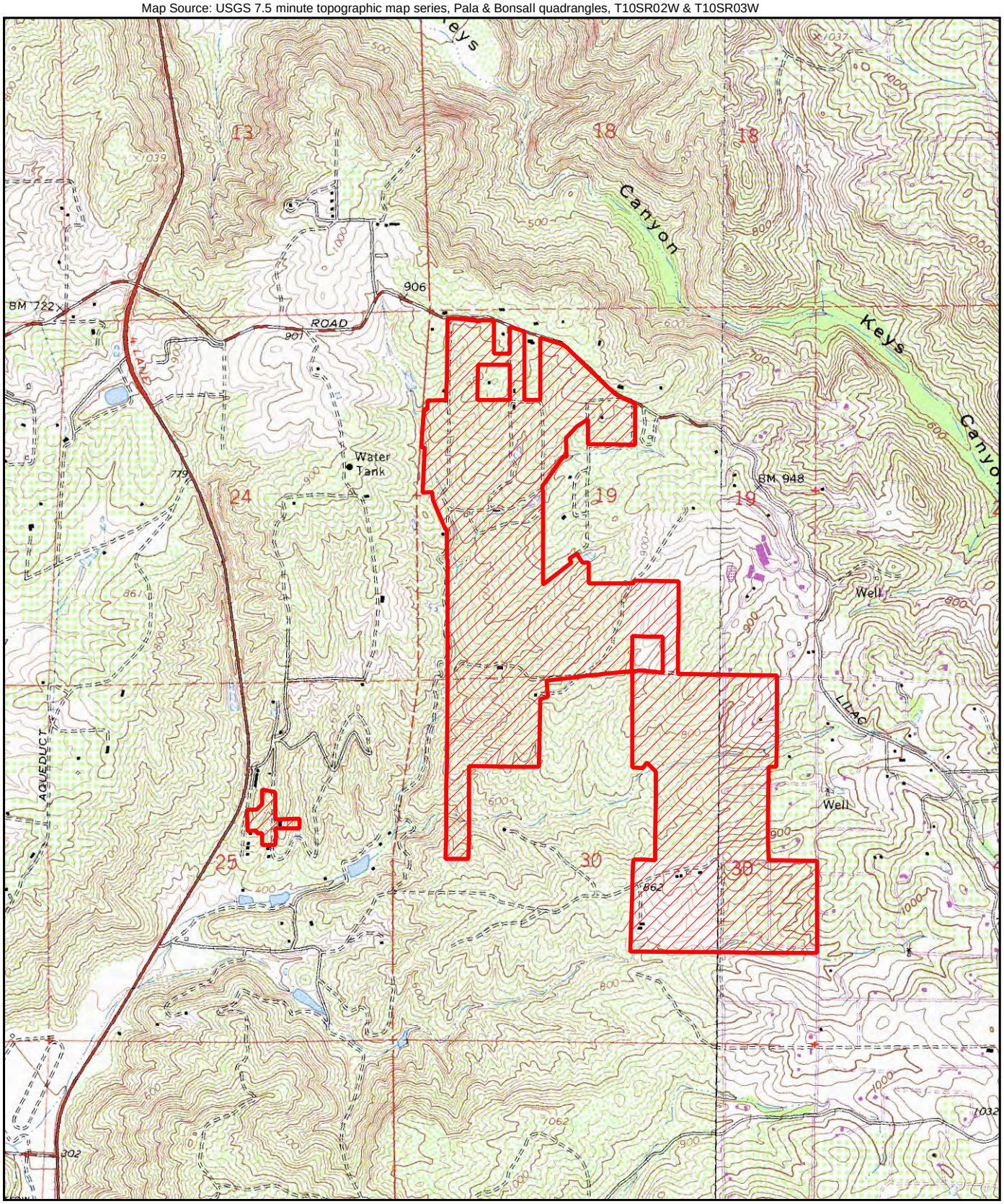
LL-32444-E

DRAFT

Map Source: USGS 7.5 minute topographic map series, Pala & Bonsall quadrangles, T10SR02W & T10SR03W




Project Boundary

RECON

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FIGURE 2

Project Location on USGS Map

LL-32444-E

DRAFT

JONES WY
LANCASTER MTN RD
STANDEL LN
W LILAC RD
LILAC WK
NUTBY LN
15
ROCKING HORSE RD
LILAC PL
OLD HIGHWAY 395
SHIREY RD
COVEY LN
RITSON RD
ANSEL WY
RODRIGUEZ RD
NELSON WY
MOUNTAIN RIDGE RD
ELMOND DR
MEGAN TR
SHADOW LAKE

Project Boundary

**Vegetation Communities**

Coastal Sage Scrub (32520)

Disturbed Coastal Sage Scrub (32520)

0 Feet 1,000

FIGURE 3

CAGN Survey Area and Biological Resources

RECON

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# ATTACHMENT 3

# Southwestern Willow Flycatcher Habitat Assessment Report

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1927 Fifth Avenue
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F 619.308.9334

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August 14, 2012

Mr. Jon Rilling
Accretive Group of Companies
12275 El Camino Real, Ste. 110
San Diego, CA 92130

Reference: I-15/395 Master Planned Community MPA – Southwestern Willow Flycatcher Habitat Assessment (RECON Number 6153)

Dear Mr. Rilling:

This letter presents the results of a habitat assessment conducted to determine the potential for suitable habitat areas within the I-15/395 Master Planned Community Major Pre-Application site (project area) to support the federally listed endangered southwestern willow flycatcher (*Empidonax trallii extimus*). No southwestern willow flycatcher individuals were observed during this habitat assessment or during other general biology surveys conducted in the project area in 2011/2012 (RECON 2012). Only one location in the project area had habitat characteristics that might be preferred by the southwestern willow flycatcher; however, this location was considered unlikely to support the species as described below.

**Site Description**

The project area is located in northern San Diego County just east of Mount Ararat and Interstate 15 and north of Moosa Canyon (Figure 1). It occurs to the south and west of Lilac Road with Keys Canyon to the north, Valley Center to the east, Moosa Canyon to the south, and Interstate 15 and Bonsall to the west (Figure 2). Of the approximately 608-acre project area, about 33.7 acres of riparian habitat were assessed for the potential to support the southwestern willow flycatcher (Figure 3).

The project area is part of the inland foothills and valleys of San Diego County. The project area includes topography consisting of a series of rolling hills dissected by drainage courses and a valley bottom that drain primarily to the south and southwest (see Figure 2). Elevations across the project site range from 930 feet above mean seal level at the highest to 750 feet above mean sea level at the lowest.

Vegetation communities and habitat types that are found in the project survey area occur as a mosaic of native habitat patches and agricultural areas (i.e., row crops, orchards, vineyards, a nursery). Native habitat occurs primarily along the drainage courses and on some of the steeper terrain on the western and southwestern portions of the project area. A total of 16 primary habitat types and vegetation communities were identified in the project survey area (see Figure 3). Some areas of these habitat types/vegetation communities have portions that were characterized as disturbed.

**Assessment of Habitat Suitability for Southwestern Willow Flycatcher**

In general, southwestern willow flycatcher prefers riparian habitat dominated by willows, tamarisk, or Russian olive (USFWS 2002). The riparian vegetation structure is generally characterized by individual trees of different size classes with a recognizable sub-canopy and dense understory of mixed shrubs and herbaceous species. Breeding habitat for the species requires the riparian habitat to be near or adjacent to surface water or underlain by saturated soils. Thickets of riparian trees and shrubs used for nesting range in height from 6 feet to 98 feet, with nest sites having dense foliage from the ground level up to approximately 13 feet above ground. Southwestern willow flycatchers are generally not found in confined floodplains or in single narrow strips of riparian vegetation less than approximately 33 feet wide (USFWS 2011).

Areas within the project site that have riparian vegetation were assessed for the potential to support the southwestern willow flycatcher (see Figure 3; Table 1). Riparian habitats in the project area are confined to the narrow drainage courses. These habitats comprise southern willow scrub, southern riparian scrub, and southern coast live oak riparian forest. The riparian areas were assessed to determine if they contained the vegetation composition, structure, and other habitat characteristics preferred by the southwestern willow flycatcher.

**TABLE 1**
**SOUTHWESTERN WILLOW FLYCATCHER HABITAT ASSESSMENT SURVEY INFORMATION**

| Survey Date | Type of Survey | Time | Biologist Conducting Survey |
|---|---|---|---|
| August 26, 2011 | Southwestern Willow Flycatcher Habitat Assessment | 8:00 A.M. – 3:00 P.M. | GAS, JCL |
| January 11, 2012 | Southwestern Willow Flycatcher Habitat Assessment | 8:00 A.M. – 4:00 P.M. | GAS, JCL |
| February 14, 2012 | Southwestern Willow Flycatcher Habitat Assessment | 8:00 A.M. – 4:00 P.M. | GAS |
| March 21, 2012 | Southwestern Willow Flycatcher Habitat Assessment | 8:00 A.M. – 4:00 P.M. | GAS |

Biologists: GAS = Gerry Scheid; JCL = John Lovio

The southern coast live oak riparian woodlands in the project area were not considered suitable habitat for the southwestern willow flycatcher due to the lack of a significant willow component. These oak riparian woodlands are more open and lack the dense understory vegetation required by the species for nesting. The riparian scrub vegetation in the northwest portion of the project site supports a dense stand of willows with little to no understory vegetation. This area lacks the understory and tree structure to be considered habitat for the southwestern willow flycatcher. The willow scrub vegetation in the southeastern portion of the site comprises a dense stand of willows with a dense understory of riparian shrubs, but only portions of this habitat type at the west end contained the tree structure preferred by the southwestern willow flycatcher. However, this habitat area is narrow, relatively small in acreage, and lacks the surface water component of suitable willow flycatcher nesting habitat. Therefore, this one area was considered to have a low to moderate potential to support the species.

A search of the California Natural Diversity Data Base (State of California 2007) for documented southwestern willow flycatcher occurrences confirmed that this species has been documented in the following areas of San Diego County: Sweetwater Reservoir, El Capitan Reservoir, San Dieguito River near Escondido, Buena Vista Creek near Carlsbad, Santa Margarita River on Camp Pendleton, and several locations along the San Luis Rey River near Oceanside, Pala, and Bonsall. Occurrences of southwestern willow flycatcher on the San Luis Rey River are

documented approximately 2.8 miles north, 47 miles west, and 5.0 miles northeast of the project area. Critical habitat for southwestern willow flycatcher has been designated along the San Luis Rey River. While the project area lies within the historic range of this species and is also within two to five miles of occupied habitat along the San Luis Rey River, there is only a low potential for this species to nest in the southern willow scrub habitat in it. One relatively small portion of the southern willow scrub habitat on-site has the vegetation composition and structure preferred for nesting by the species, but lacks surface water, is narrow, and occurs adjacent to agricultural activities that reduce the suitability of the habitat for breeding by the species. While a protocol survey for the southwestern willow flycatcher was not conducted in 2011, this species was not detected on-site during general bird surveys or protocol surveys for least Bell's vireo (*Vireo bellii pusillus*) that overlapped a portion of the 2011 southwestern willow flycatcher breeding season.

If you have any questions regarding this habitat assessment, please contact me.

Sincerely,

Gerry Scheid
Senior Biologist

GAS:eab:sh

cc: Rikki Schroeder, RMA Consultants

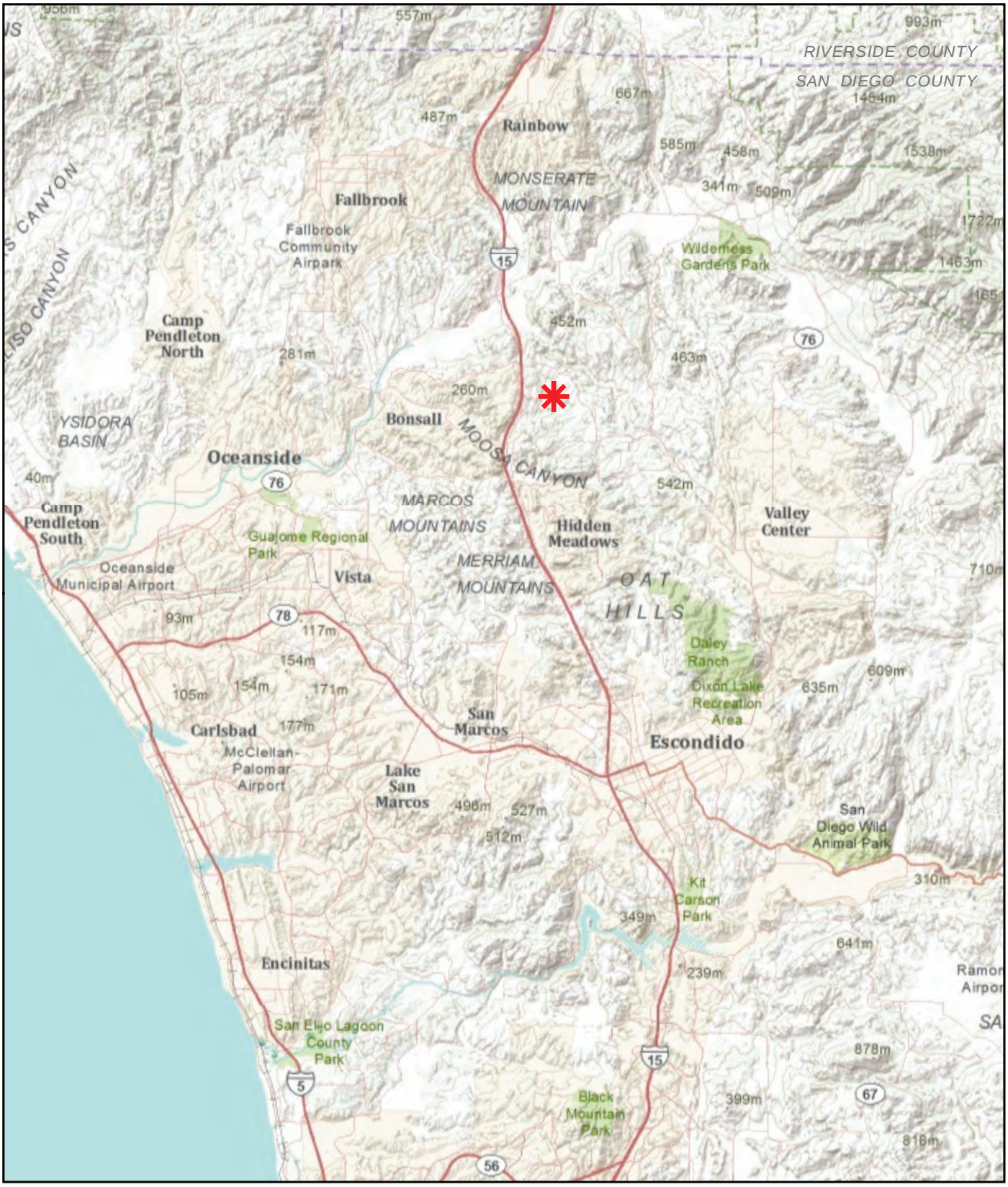
**References Cited**

California, State of
2007 California Natural Diversity Database: Electronic Database with Annual Updates. Wildlife & Habitat Data Analysis Branch, Department of Fish and Game.

RECON
2011 Biological Resource Report for the I-15/395 Master Planned Community MAP (Case # 3992-10-025).

U.S. Fish and Wildlife Service (USFWS)
2002 Final Recovery Plan Southwestern Willow Flycatcher (*Empidonax traillii extimus*). Prepared by Southwestern Willow Flycatcher Recovery Team Technical Subgroup for U.S. Fish and Wildlife Service, Region 2. August 2.

2011 Endangered and Threatened Wildlife and Plants; Designation of Revised Critical Habitat for Southwestern Willow Flycatcher. Federal Register 76:157:50542-50629.




Project Location

FIGURE 1

Regional Location

RECON

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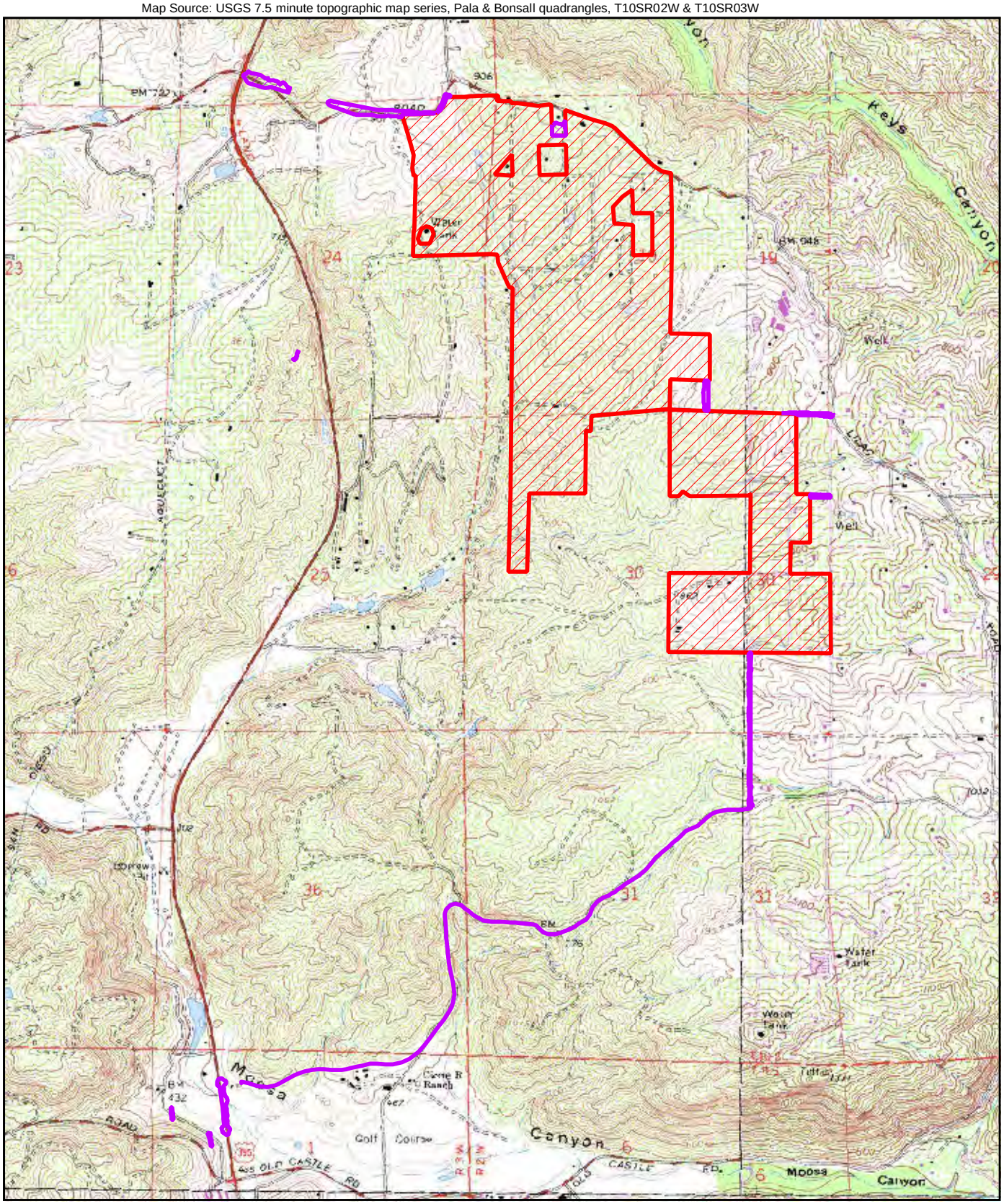
Map Source: USGS 7.5 minute topographic map series, Pala & Bonsall quadrangles, T10SR02W & T10SR03W

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Project Boundary

Off-site Improvement Areas

RECON

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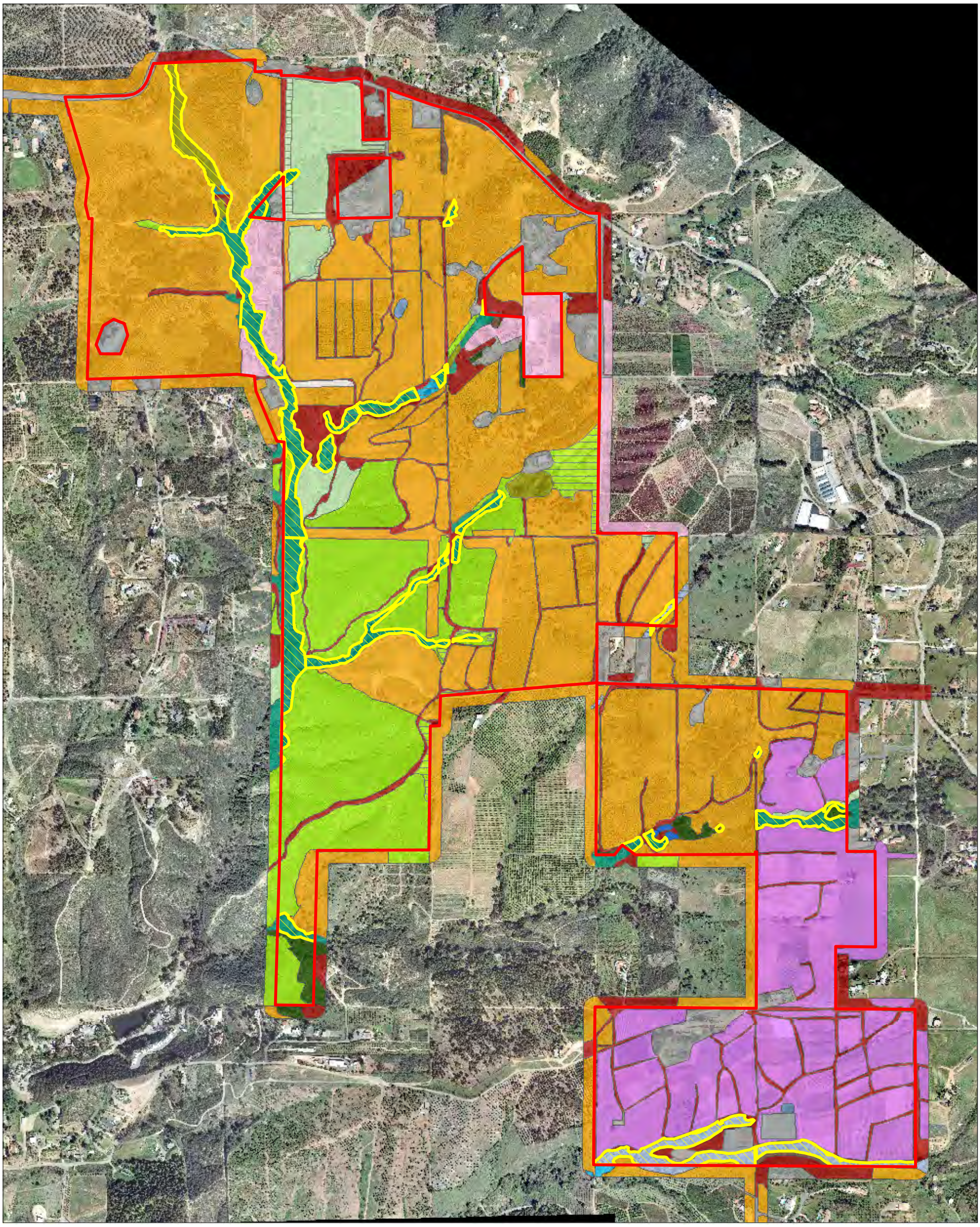
FIGURE 2

Project Location on USGS Map

Image source: Copyright 2010 Aerials Express, LLC, All Rights Reserved (flown March, 2010)



Project Boundary

Willow Flycatcher Habitat Assessment 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 Coastal/Valley Freshwater Marsh (52410)
- Disturbed Wetland (11200)
- 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)
- Extensive Agriculture - Row Crops (18320)
- Intensive Agriculture - Nursery (18200)
- Orchard (18100)
- Vinyard (18100)
- Disturbed Habitat (11300)
- Developed (12000)

0 Feet 800

# FIGURE 3

Vegetation Communities, Land Cover Types, and Southwestern Willow Flycatcher Habitat Assessment Areas

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# ATTACHMENT 4

# Burrowing Owl Habitat Assessment Report

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August 14, 2012

Mr. Jon Rilling
Accretive Group of Companies
12275 El Camino Real, Ste. 110
San Diego, CA 92130

Reference: I-15/395 Master Planned Community MPA - Burrowing Owl Habitat Assessment
(RECON Number 6153)

Dear Mr. Rilling:

This letter presents the results of an assessment conducted to determine the potential for suitable habitat areas within the I-15/395 Master Planned Community Major Pre-Application site (project area) to support burrowing owl (*Athene cunicularia hypugaea*). No burrowing owl individuals were observed during this habitat assessment or during other general biology surveys conducted in the project area in 2011/2012 (RECON 2012). While general habitat characteristics for burrowing owl are present in some portions of the site, no suitable burrows, burrow complexes, or other sign were observed in the survey area or buffer that indicate that burrowing owls are using the site.

**Site Description**

The project area is located in northern San Diego County just east of Mount Ararat and Interstate 15 and north of Moosa Canyon (Figure 1). It occurs to the south and west of Lilac Road with Keys Canyon to the north, Valley Center to the east, Moosa Canyon to the south, and Interstate 15 and Bonsall to the west (Figure 2). Of the approximately 608-acre project area, about 197.34 acres were considered to have the general habitat characteristics needed to support burrowing owl (Figure 3). An additional 500-foot buffer around each survey area was included in the assessment of habitat.

The project area is part of the inland foothills and valleys of San Diego County. The project area includes topography consisting of a series of rolling hills dissected by drainage courses and a valley bottom that drain primarily to the south and southwest (see Figure 2). Elevations across the project site range from 930 feet above mean seal level at the highest to 750 feet above mean sea level at the lowest.

Vegetation communities and habitat types that are found in the project survey area occur as a mosaic of native habitat patches and agricultural areas (i.e., row crops, orchards, vineyards, nursery). Native habitat occurs primarily along the drainage courses and on some of the steeper terrain on the western and southwestern portions of the project area. A total of 16 primary habitat types and vegetation communities were identified in the project survey area (see Figure 3). Some areas of these habitat types/vegetation communities have portions that were characterized as disturbed.

Wildlife observed during the habitat assessments included common side-blotched lizard (*Uta stansburiana*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura marginella*), greater roadrunner (*Geococcyx californianus*), black phoebe (*Sayornis nigricans semiatra*), American crow (*Corvus brachyrhynchos hesperis*), house wren (*Troglodytes aedon parkmanii*), northern mocking bird (*Mimus polyglottos polyglottos*), song sparrow (*Melospiza melodia*), California towhee (*Pipilo crissalis*), lesser goldfinch (*Carduelis psaltria hesperophilus*), and house finch (*Carpodacus mexicanus frontalis*).

**Assessment of Habitat Suitability for Burrowing Owls**

The survey areas within the project site assessed for burrowing owl met the general habitat characteristics outlined in the survey protocol (California Burrowing Owl Consortium 1993). Burrowing owl habitat includes annual and perennial grasslands, desert, and scrublands having low-growing vegetation (Shuford and Gardali 2008). Habitats with tree and shrubs that cover less than 30 percent of the ground surface may also be used by burrowing owls. Agricultural fields can be used by burrowing owls if suitable habitat areas are adjacent to them (Bartok and Conway 2010). Areas within the project site that have row-crops, open orchards, or non-native grassland vegetation were considered the most suitable areas to potentially support burrowing owl (see Figure 3). These formed the habitat assessment survey area along with a 500-foot buffer around each survey area.

The survey areas were walked on-foot to determine the suitability of the habitats to support burrowing owl (Table 1). Evidence of the presence of suitable burrows, burrow complexes, or other sign of burrowing owl use (e.g., molted feathers, cast pellets, prey remains, egg shell fragments, or excrement at or near a burrow entrance) were looked for in each area. Portions of the 500-foot buffer area that contained suitable habitat characteristics were also examined for sign of burrowing owl use. Some buffer areas extended off-site on private land that was not accessible other than by sight.

**TABLE 1**
**BURROWING OWL HABITAT ASSESSMENT SURVEY INFORMATION**

| Survey Date | Type of Survey | Time | Weather Conditions | Biologist Conducting Survey* |
|---|---|---|---|---|
| June 2, 2011 | General Biology Surveys; Burrowing Owl Habitat Assessment | 8:35 A.M. – 2:30 P.M. | 64- 77° F; winds 0-1 mph; clear conditions | GAS, EJM, ML |
| June 3, 2011 | General Biology Surveys; Burrowing Owl Habitat Assessment | 8:30 A.M. – 2:30 P.M. | 58- 76° F; winds 0-7 mph; high haze | GAS, EJM, ML |
| July 6, 2011 | General Biology Surveys; Burrowing Owl Habitat Assessment | 8:00 A.M. – 3:00 P.M. | 61- 76° F; winds 0-7 mph; partly cloudy | GAS |
| August 26, 2011 | Burrowing Owl Habitat Assessment | 10:00 A.M. – 3:00 P.M. | 85- 90° F; winds calm 1-3 mph; clear. | GAS, JCL |
| January 11, 2012 | Burrowing Owl Habitat Assessment | 8:00 A.M. – 4:00 P.M. | 50–53° F; winds 0–1 mph; cloudy conditions | GAS |
| February 14, 2012 | Burrowing Owl Habitat Assessment | 8:00 A.M. – 4:00 P.M. | 57–60° F; winds 0–1 mph; clear conditions | GAS |
| March 21, 2012 | Burrowing Owl Habitat Assessment | 8:00 A.M. – 4:00 P.M. | 65–72° F; winds 2–5 mph; clear conditions | GAS |

° F = degrees Fahrenheit

*EJM = Erin McKinney; GAS = Gerry Scheid; JCL = John Lovio; ML = Megan Lahti

No suitable burrows or burrow complexes were observed within the agricultural fields and open orchards. Burrows that were observed were created by small rodents and were too small for use by burrowing owls. No ground squirrel- or rabbit-sized burrows were observed in the survey area. No sign of burrowing owl use of the survey area was observed.

The lack of suitable burrows and burrow complexes in areas considered most suitable for burrowing owl in the project area is likely the result of human activity. Agricultural fields and the areas between the young orchard trees are tilled on a regular basis for crop production and vegetation control, resulting in an environment that is disturbed and difficult to maintain an active burrow in. In addition, pest control in and around the agricultural fields and orchards likely have reduced the populations of ground squirrels and rabbits in the area, reducing both the potential for suitable burrows for owls and a prey source. Non-native grassland vegetation both on-site and off-site within the buffer area is too dense and too tall to be preferred by burrowing owls.

A search of the California Natural Diversity Data Base (State of California 2007) for documented burrowing owl occurrences confirmed that burrowing owls have been documented primarily in the southern portion (e.g., Point Loma, Coronado, National City, and Otay Mesa) and eastern portion of San Diego County around Ramona. The project area lies within the historic range of this species, but is not in a portion of San Diego County considered within the species' current breeding range (Shuford and Gardali 2008). These facts indicate that there is a low potential for there to be existing burrowing owl populations in the vicinity of the project area to serve as a source of immigration. Therefore, the likelihood of burrowing owls to be present in the project area is low based on the condition of the potentially suitable habitats on-site, lack of burrows/burrow complexes and ground squirrel/rabbit populations, and lack of nearby known populations of this species.

If you have any questions regarding this habitat assessment, please contact me.

Sincerely,

Gerry Scheid
Senior Biologist

GAS:sjg:sh

cc: Rikki Schroeder, RMA Consultants

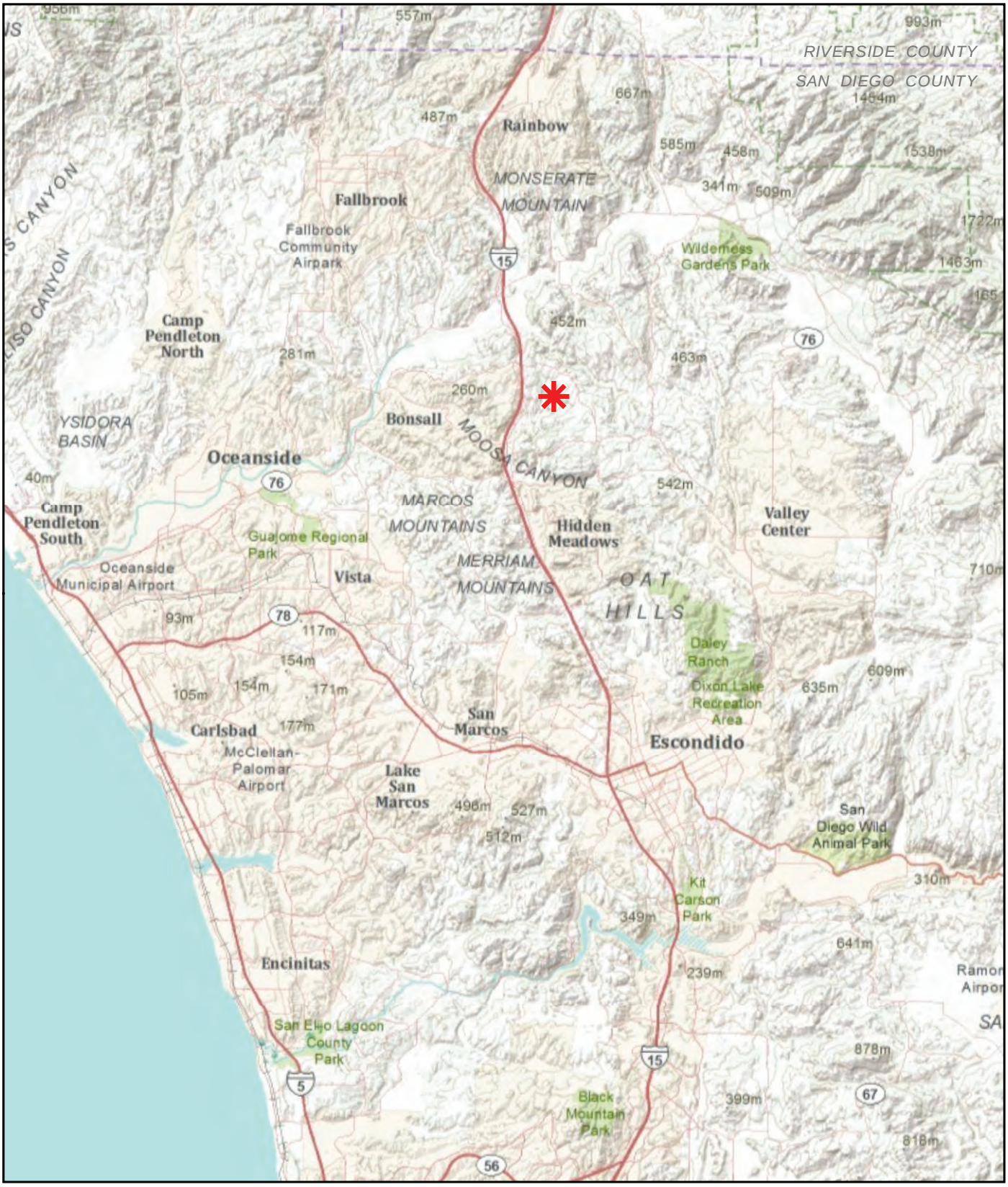
**References Cited**

California Burrowing Owl Consortium
1993 Burrowing Owl Survey Protocol and Mitigation Guidelines. April.

California, State of
2007 California Natural Diversity Database: Electronic Database with Annual Updates. Wildlife & Habitat Data Analysis Branch, Department of Fish and Game.

Bartok, N. D., and C. J. Conway
2010 Factors Affecting the Presence of Nesting Burrowing Owls in an Agricultural Landscape. Journal of Raptor Research 44(4):286-293.

Shuford, W. D. and T. Gardali, editors
2008 California Birds Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. Studies of Western Birds I. Species Accounts: Burrowing Owl (*Athene cunicularia*). 1:218-226.




Project Location

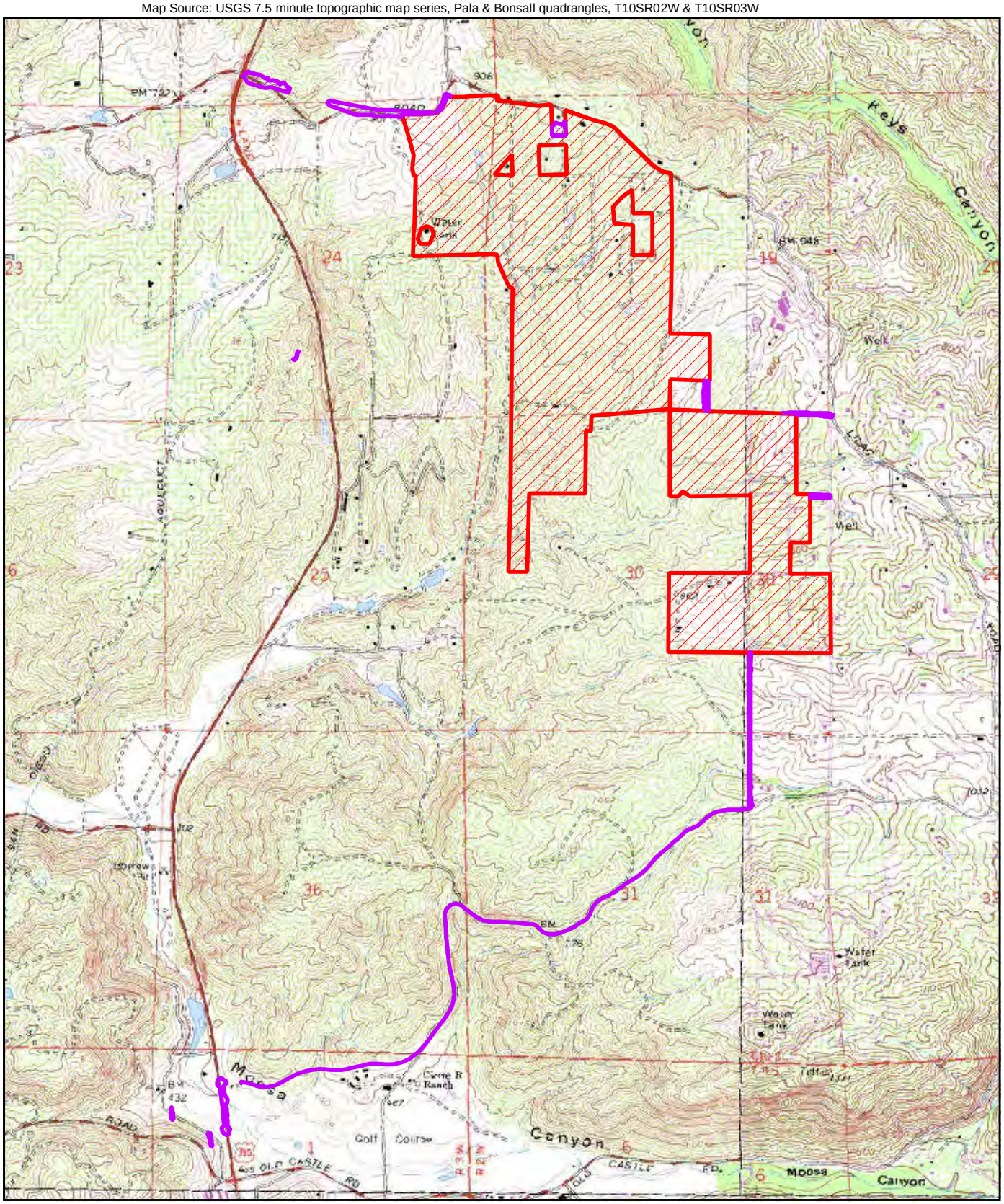
FIGURE 1

Regional Location

RECON

M:\JOBS4\6153\common_gis\fig1.mxd 9/12/2011

Map Source: USGS 7.5 minute topographic map series, Pala & Bonsall quadrangles, T10SR02W & T10SR03W

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Project Boundary

Off-site Improvement Areas

RECON

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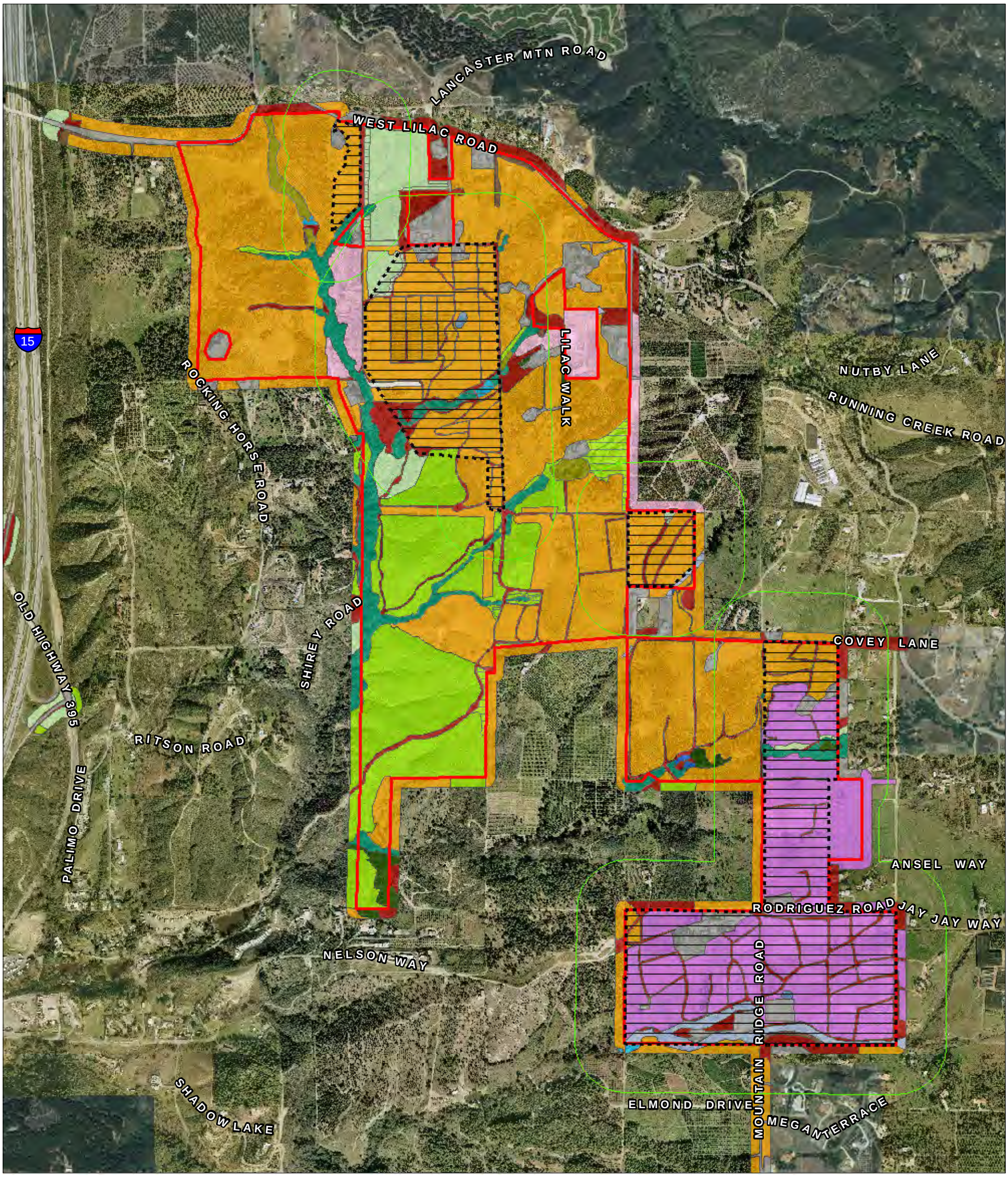
FIGURE 2

Project Location on USGS Map

Image source: Aerial Photography flown February 2011




- Project Boundary
- Burrowing Owl Habitat Assessment Survey Area
- 500-ft. Survey Buffer

**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 Coastal/Valley Freshwater Marsh (52410)
- Disturbed Wetland (11200)
- Eucalyptus Woodland (79100)
- Mule Fat Scrub (63310)
- Non-native Grassland (42200)
- 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 Sycamore Riparian Woodland (62400)
- Southern Willow Riparian Woodland (62500)
- Southern Willow Scrub (63320)
- Disturbed Southern Willow Scrub (63320)
- Open Water - Fresh Water Agriculture Pond (64140)
- Extensive Agriculture - Row Crops (18320)
- Intensive Agriculture - Nursery (18200)
- Orchard (18100)
- Vinyard (18100)
- Disturbed Habitat (11300)
- Developed (12000)

FIGURE 3

Vegetation Communities, Land Cover Types, and Burrowing Owl Habitat Assessment Survey Locations

RECON

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# ATTACHMENT 5

# Stephens' Kangaroo Rat Habitat Assessment Report