

1.3.3 Focused Species Surveys

Rare Plant Surveys

An initial rare plant survey was conducted in the study area by HELIX on April 30, 2014 (Table 1). A focused inventory of wart-stemmed ceanothus (*Ceanothus verrucosus*) and follow-up survey for Encinitas baccharis (*Baccharis vanessae*) was conducted on November 3. An updated rare plant survey was conducted by HELIX on March 31 and April 3, 2017, concurrent with the updated general biological survey. Opportunistic inspections for target rare plant species were also made during the other biological surveys performed in 2014, 2015, and 2016 (Table 1). Searches were made for those species that are listed as threatened or endangered by the USFWS or the CDFW; those with a Rare Plant Rank 1 through 4 designated by the California Native Plant Society (CNPS); and those that are on the County Sensitive Plant List (County 2010a). The surveys were conducted on foot and included 100 percent visual coverage of the study area. Impenetrable stands of dense chaparral, such as those that occur in the southern portions of the study area, were viewed using binoculars and spotting scopes from perimeter areas, trails, and higher elevation vantage points. Special status plant species encountered were mapped using a hand-held Global Positioning System (GPS) unit and/or on an aerial photograph.

Hermes Copper Butterfly

HELIX biologists conducted a survey for the Hermes copper butterfly according to the *County's Guidelines for Hermes Copper* (2010b). Four site visits, 8 to 14 days apart, were made beginning during the third full week of May and ending with the last site visit made during the first full week of July of 2014 (Table 1). Prior to the survey, HELIX had mapped the species' larval host plant (spiny redberry [*Rhamnus crocea*]), and the survey focused on the areas around those plants and particularly where California buckwheat (*Eriogonum fasciculatum*), the species' favored nectar plant, was present.

Least Bell's Vireo

HELIX biologists conducted a survey for the least Bell's vireo in accordance with *Least Bell's Vireo Survey Guidelines* (USFWS 2001). The survey consisted of eight site visits made from April 25 through July 14, 2014 (Table 1). The survey area consisted of potential least Bell's vireo riparian habitat (i.e., southern willow riparian forest and patches of associated coast live oak woodland and mule fat scrub) within a section of Escondido Creek upstream and downstream of the Country Club Drive crossing of the creek. The survey was conducted by walking along the edges of, as well as within, potential least Bell's vireo habitat while listening for least Bell's vireo vocalizations and while viewing birds with the aid of binoculars. All least Bell's vireo locations, along with other special status riparian bird species locations (and those of the brown-headed cowbird [*Molothrus ater*; a nest parasite] were mapped on an aerial photograph. The report of findings for the least Bell's vireo survey is included as Appendix H.

Coastal California Gnatcatcher

HELIX biologists conducted a survey for the coastal California gnatcatcher in accordance with the *Coastal California Gnatcatcher Presence/Absence Survey Protocol* (USFWS 1997). The survey consisted of three site visits made from May 13 through May 29, 2014 (Table 1). The survey area consisted of potential coastal California gnatcatcher habitat in the study area (i.e., Diegan coastal sage scrub, Diegan coastal sage scrub-disturbed, and coastal sage-chaparral scrub). The survey was conducted by walking through the vegetation or on adjacent paths, and birds were viewed with the aid of binoculars, where necessary. If the coastal California gnatcatcher was not detected passively, a digital coastal California gnatcatcher call-prompt was briefly played. Coastal California gnatcatcher locations were mapped on an aerial photograph. The report of findings for the coastal California gnatcatcher survey is included as Appendix J.

Burrowing Owl

HELIX biologists conducted a nesting season survey for the burrowing owl in accordance with the survey guidelines in the *CDFW 2012 Staff Report on Burrowing Owl Mitigation* (CDFW 2012) and consistent with *Strategy for Mitigating Impacts to Burrowing Owls in the Unincorporated County* (Attachment A to County 2010b). Four site visits were made from April 9 through July 3, 2014 by teams of two biologists (Table 1) to survey potential burrowing owl habitat (i.e., non-native grassland, disturbed habitat, and scrub communities where the shrub cover was sparse) where it occurs in the study area and 500 feet beyond. Some of the potential burrowing owl habitat in the survey area was inspected with the aid of binoculars due to restricted access to private property.

The biologists slowly walked meandering transects through areas of potential habitat where it was legally accessible. Fence posts, rocks, and other possible perching locations, as well as mammal burrows (especially those of California ground squirrel [*Otospermophilus beecheyi*]) potentially suitable for use by burrowing owls were inspected and mapped with a hand-held GPS unit. These burrows were specifically searched for sign of recent burrowing owl occupation including pellets with regurgitated fur, bones, and insect parts; white wash (excrement); and feathers. In addition, structures such as concrete culverts/piles, wood debris piles, trash piles, and openings beneath cement or asphalt pavement that were present were checked for burrowing owl sign. The report of findings for the burrowing owl survey is included as Appendix I.

1.3.4 Jurisdictional Delineation

Prior to beginning fieldwork, aerial photographs (1"=200' scale), topographic maps (1"=200' scale), and National Wetland Inventory (NWI) maps were reviewed to assist in determining the location of potential jurisdictional areas in the study area. HELIX biologists performed the formal jurisdictional delineation on March 14, 2014 (Table 1). A follow-up delineation was conducted on January 13, 2016 to obtain additional information at a wetland sampling point in a western portion of the site. The delineation was conducted to identify and map potential waters of the U.S. subject to U.S. Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act (CWA; 33 USC 1344), waters of the State subject to Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to CWA

Section 401 and State Porter-Cologne Water Quality Control Act (Porter-Cologne), and streambed and riparian habitat subject to CDFW jurisdiction pursuant to Sections 1600 *et seq.* of the California Fish and Game Code (CFG Code). The delineation was also conducted to determine the presence or absence of County Resource Protection Ordinance (RPO) wetlands. Areas generally characterized by depressions, drainage features, and riparian and wetland vegetation were evaluated. The jurisdictional delineation is included as Appendix K.

Waters of the U.S. (USACE Jurisdiction)

Potential USACE-jurisdictional waters of the U.S. were delineated in accordance with the Wetlands Delineation Manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008). Sampling points were located within representative uplands and wetlands, and mapping of drainage features was performed in the field based on the ordinary high water mark (OHWM) and surface indications of hydrology. Areas were determined to be potential wetland waters of the U.S. if there was a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology indicators. Areas were determined to be non-wetland waters of the U.S. if there was evidence of regular surface flow within an OHWM, but the vegetation and/or soils criterion were not met.

Waters of the State (RWQCB Jurisdiction)

In the context of this assessment, potential RWQCB-jurisdictional waters of the State include the same areas delineated as potential USACE-jurisdictional waters of the U.S.; there are no geographically isolated waters subject to Porter-Cologne. Waters of the State were delineated on the site consistent with the methods used for waters of the U.S.

Streambed and Riparian Habitat (CDFW Jurisdiction)

Potential CDFW-jurisdictional streambed and riparian habitat was determined based on the presence of riparian vegetation or regular surface flow within a definable bed and bank. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation” (Title 14, Section 1.72). Potential CDFW jurisdictional unvegetated-streambed encompasses the top-of-slope to top-of-slope width for the ephemeral streams within the study area. Vegetated-streambed includes all riparian shrub or tree canopy extending beyond the banks of Escondido Creek and the ephemeral streams within the study area.

County Resource Protection Ordinance Wetlands

Areas were considered County wetlands if they met one of the three following attributes pursuant to the County RPO (County 2011): (1) at least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places); (2) the substratum is predominantly undrained hydric soil; or (3) an ephemeral or perennial stream is present, whose

substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

1.3.5 Survey Limitations

While 2014 was a year of low rainfall, most of the special status plant species with potential to occur in the study area (based on geographic range, habitat and soil requirements, and database records) are perennial species (and many are shrubs), and as such, are readily identifiable year-round and in low rainfall years. Therefore, the low rainfall in 2014 is not considered to have adversely affected the results of rare plant surveys.

Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the lists of species identified are not necessarily comprehensive accounts of all species that utilize the study area as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Those species that are of special status and have potential to occur in the study area, however, are still addressed in this report.

1.3.6 Nomenclature

Nomenclature used in this report generally comes from Holland (1986) and Oberbauer (2008) for vegetation; Baldwin et al. (2012) for plants; Glassberg (2001) for butterflies; Collins and Taggart (2006) for reptiles and amphibians; American Ornithologists' Union (2013) for birds; and Baker et al. (2003) for mammals. Plant species status is from the CNPS (2014), CDFW (2014a), and County (2010a). Animal species status is from CDFW (2011 and 2014b) and County (2010a).

1.4 ENVIRONMENTAL SETTING

1.4.1 Regional Context

The study area is generally located within the northern coastal foothills ecoregion of north San Diego County. It occurs within the northeastern portion of the Elfin Forest – Harmony Grove Planning Area. Generalized climate in the region is regarded as dry, subhumid mesothermal, with warm dry summers and cold moist winters. Mean annual precipitation is between 14 and 18 inches, and the mean annual temperature is between 60 and 62 degrees Fahrenheit. The frost-free season is 260 to 300 days.

Important biological resources in the region generally include core blocks of chaparral in the Harmony Grove hills and coastal sage scrub in the Elfin Forest area, in addition to perennial waters and riparian habitat associated with Escondido Creek and San Dieguito River corridors. Oak woodlands and chaparral typify the biological character of much of the area. The region hosts core populations of sensitive plants, including Encinitas baccharis, wart-stemmed ceanothus, and summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), in addition to important habitat for several sensitive animals, including coastal California gnatcatcher and least Bell's vireo, among others.

In the context of the Draft North County MSCP Plan, the study area occurs within PAMA, north of Preserve Areas associated with the Del Dios Highlands Preserve and Elfin Forest Recreational Reserve, south and east of Pre-negotiated (Hardlined) Take Authorized Areas associated with Harmony Grove Village, and west of PAMA and undesignated City of Escondido lands. The dominant habitat type within the study area is southern mixed chaparral, which covers approximately 46.8 acres; the next highest habitat type is non-native grassland, which covers approximately 42.5 acres of the site.

1.4.2 General Land Uses

General land uses in the study area include undeveloped land, portions of which were previously in active agriculture and homestead use. A private driveway currently traverses the study area providing access to rural residences to the east. Native chaparral and non-native grassland are the dominant vegetation communities within the study area. Surrounding land uses generally include the Harmony Grove Village development to the north and west, open space to the south, rural residences and undeveloped land to the east, and semi-rural residences to the west (Figure 3). The properties supporting rural residences within County jurisdiction to the east are currently built out to their allowed zoning and density designations.

1.4.3 Disturbance

The northern and north-central portions of the study area have been disturbed in the past by human activities, which have resulted in those areas now supporting disturbed habitat, non-native grassland, and scattered non-native trees and shrubs. Additionally, there is disturbed habitat south of Country Club Drive that was once a dairy facility and disturbed habitat adjacent to residences and Country Club Drive. Numerous dirt roads traverse the study area, some of which lead to off-site residences, in addition to several patches of eroded land on hillsides where previous land disturbance has occurred. The non-native vegetation within the study area occurs primarily adjacent to Country Club Drive and is comprised of species such as Peruvian peppertree (*Schinus molle*) and tree of heaven (*Ailanthus altissima*). It appears that these trees were purposely planted around a former home site.

1.4.4 Topography and Soils

Elevations in the study area range from approximately 938 feet above mean sea level (amsl) to 570 feet amsl. Elevation generally increases from north to south across the site. The study area generally contains a southeast to northwest trending valley surrounded by hills and steep ridgelines to the east, south, and west. Escondido Creek flows through the northern portion of the study area and generally trends east-west to San Elijo Lagoon (Figure 2). The ephemeral tributaries identified in the southern portions of the study area converge and drain off site to the west, through rural residential properties, before discharging into a reach of Escondido Creek located further to the west of the study area.

Nine soil types have been mapped in the study area (Natural Resource Conservation Service [NRCS] 2014a; Figure 7). Those soils types covering the most area included Cieneba-Fallbrook rocky sandy loams, 30 to 65 percent slopes, eroded; Escondido very fine sandy loam, 15 to 30

percent slopes, eroded; Las Posas fine sandy loam, 15 to 30 percent slopes, eroded; Las Posas fine sandy loam, 9 to 15 percent slopes, eroded; Las Posas stony fine sandy loam, 30 to 65 percent slopes; Wyman loam 2 to 5 percent slopes; and Wyman loam, 5 to 9 percent slopes. Less common in the study area were Huerhuero loam, 2 to 9 percent slopes and Visalia sandy loam, 2 to 5 percent slopes. Wyman loams are known to be associated with alluvial fans. However, no alluvial fans or surface water features occur in the areas mapped as Wyman loam; none are evident from review of historical imagery and topographic maps of the site (NETR Online 2017). None of the named soils mapped in the study area are listed as hydric; however, there are unnamed inclusions in these soil types that may be hydric based on landscape position and hydrology (NRCS 2014b).

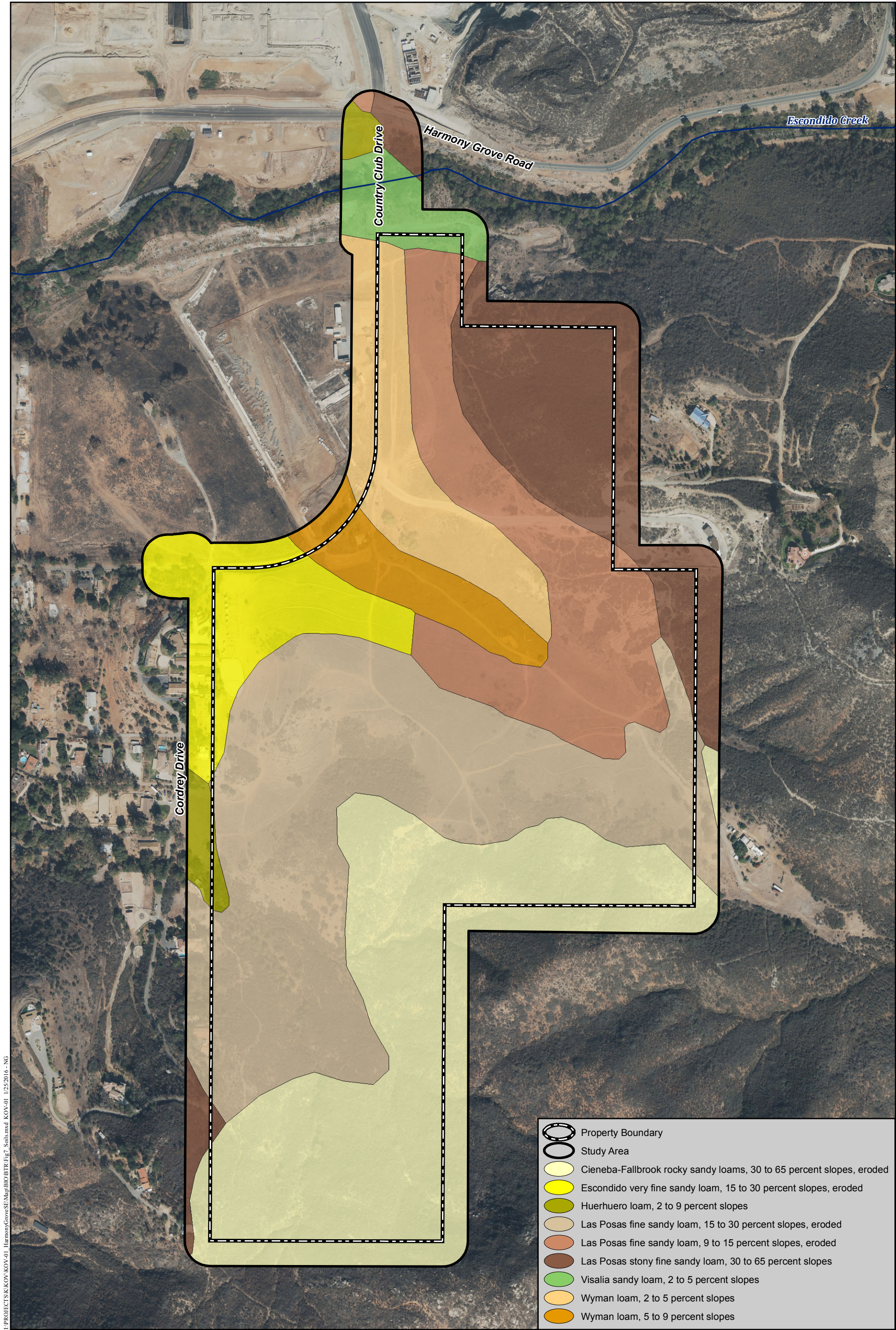
The mapped soil types were compared against the actual soils encountered during geotechnical investigations for the Project. The actual soils information would provide further guidance in evaluating suitability for rare plants and, in combination with vegetation composition, whether mafic or metavolcanic (gabbro) derived substrate is present. Four surficial soil types and one geologic formation were encountered during the previous field investigation. The surficial deposits consist of undocumented fill, topsoil, alluvium, and colluvium. The formational unit includes the Cretaceous-age granitic rocks commonly referred to as Escondido Creek Granodiorite. Three relatively small undocumented fill embankments occur on the site. Topsoils characterized as loose, damp, brown, silty sands blanket the majority of the site and vary from approximately ½ to 1 foot thick. Alluvial deposits were found over a relatively large portion of the property within the drainage and tributary channels throughout the site. These deposits generally consist of relatively loose to medium dense, silty sands with varying amounts of gravel and cobble. Colluvial deposits were encountered along the hillsides above the alluvial drainages overlying the granitic rock. In limited areas, cemented colluvium was encountered at grade and at depth in exploratory trenches and borings. Cretaceous-age Escondido Creek Granodiorite (granitic rock) underlies the surficial deposits ranging from highly weathered, decomposed rock to outcrops of slightly weathered, extremely strong rock that may require blasting to excavate. The soils derived from excavations within the decomposed granitic rock are anticipated to consist of low-expansive, silty, medium- to coarse-grained sands.

1.4.5 Vegetation Communities/Habitat Types

Eleven vegetation communities/habitat types occur in the study area, as shown on Figure 8. The numeric codes in parentheses following each community/habitat type name are from the Holland classification system (Holland 1986) and as added to by Oberbauer (2008) as presented in the County's Biology Guidelines (County 2010a). The communities/habitat types are described below in order by Holland code.

Non-native Vegetation

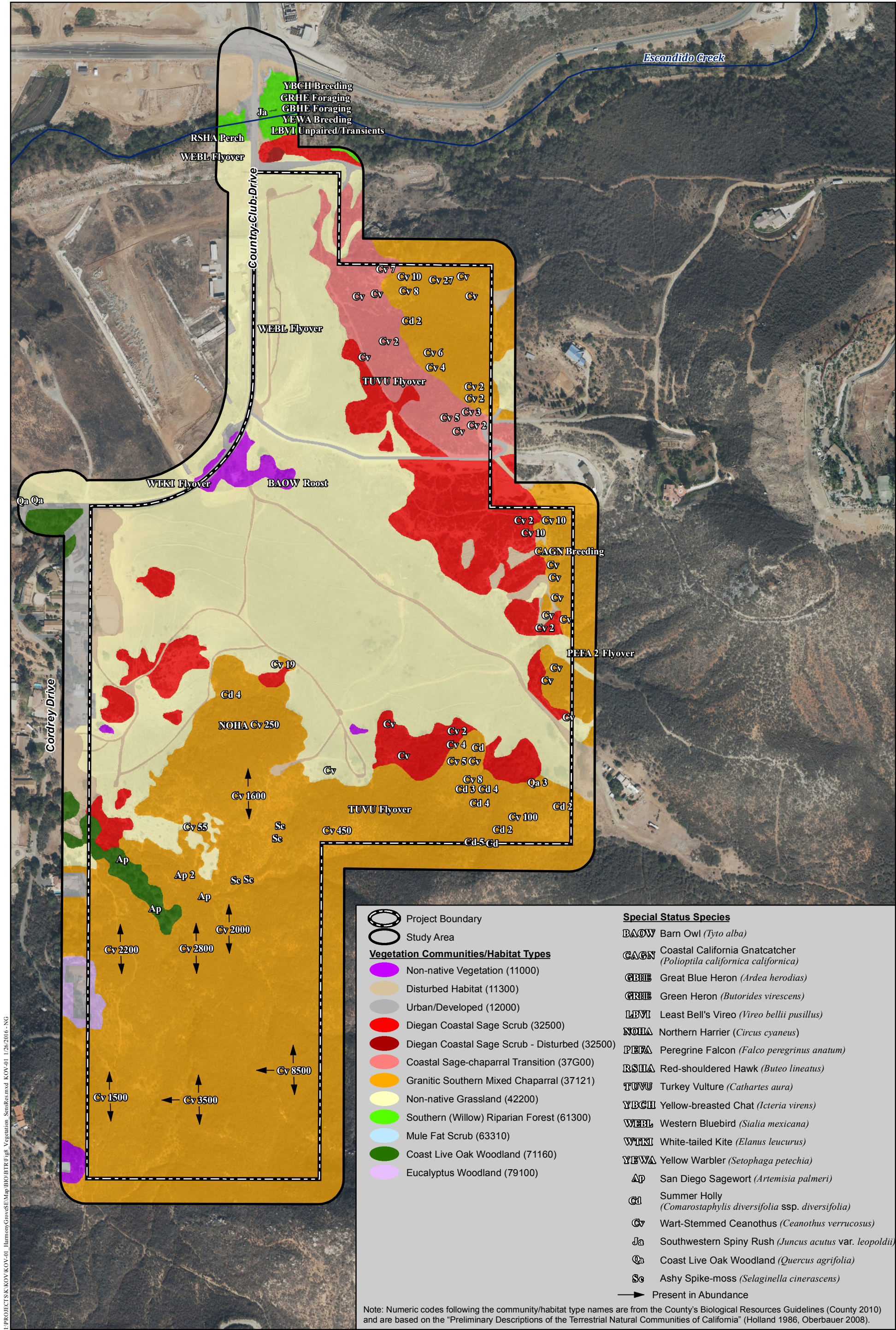
Non-native vegetation is a category describing stands of naturalized trees and shrubs (e.g., acacia [*Acacia* sp.], peppertree [*Schinus* sp.]), many of which are also used in landscaping. As described above, non-native vegetation in the study area is comprised of plant species such as Peruvian peppertree (*Schinus molle*) and tree of heaven (*Ailanthus altissima*). It appears that these trees were purposely planted around a former home site and may have spread to other small areas of



Soils

HARMONY GROVE VILLAGE SOUTH

Figure 7



Vegetation and Sensitive Resources

HARMONY GROVE VILLAGE SOUTH

the study area. Non-native vegetation also occurs around a residence in the southwestern corner of the study area. Approximately 0.8 acre of non-native vegetation is mapped on site.

Disturbed Habitat

Disturbed habitat includes areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops) and where there is evidence of soil surface disturbance. Disturbed habitat supports a predominance of non-native and/or weedy species that are indicators of such surface disturbance (County 2010b). Disturbed habitat in the study area includes unvegetated areas such as dirt roads and areas of eroded land vegetated by non-native sparse arrangements of grasses and forbs. Disturbed habitat also occurs along Country Club Drive and adjacent to residences. Approximately 3.6 acres of disturbed habitat are mapped on site.

Urban/Developed

Urban/developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation (County 2010b). Urban/developed land in the study area consists of Country Club Drive, Harmony Grove Road, residential properties, paved access to residential properties, and graveled access to a beekeeping area. Approximately 0.9 acre of urban/developed land is mapped on site.

Diegan Coastal Sage Scrub (including Disturbed)

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat, laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*; Holland 1986). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub, but is sparser and has a higher proportion of non-native, annual species. The total amount of coastal sage scrub reported in the Draft MSCP North County Plan area is 29,888 acres, of which, 23,463 acres are located within areas designated as PAMA (County 2009).

Dominant species in the Diegan coastal sage scrub within the study area include California buckwheat and black sage. The habitat generally occurs in a patchy and fragmented distribution in the northern half of the study area, as relatively small isolated stands and stands that intergrade with adjacent chaparral. In general, the stands that occur in the southern-central and western portions of the site are of low quality and “Low Value” in accordance with the Southern California Coastal Sage Scrub Natural Community Conservation Planning (NCCP) Conservation Guidelines and Logic Flow Chart (CDFW 1993a, 1993b). There is also a single patch of disturbed coastal sage scrub on the south side of Escondido Creek considered low quality and

value due to its sparseness and species composition. The stands that occur in the northern, central, and eastern portions of the site are of moderate quality and “Intermediate Value” in accordance with the NCCP Conservation Guidelines and Logic Flow Chart due to their size, location, species composition, and function. Approximately 10.9 acres of Diegan coastal sage scrub are mapped on site, including 4.6 acres of Low Value and 6.3 acres of Intermediate Value scrub. This represents less than 0.10 percent (0.04 percent) of the total amount reported in the Draft MSCP North County Plan area.

Coastal Sage-Chaparral Transition

Coastal sage-chaparral transition is a mixture of sclerophyllous chaparral shrubs and drought-deciduous sage scrub species regarded as an ecotone (transition) between two vegetation communities. This singular community contains floristic elements of both communities in the study area including California buckwheat, black sage, California sagebrush, San Diego honeysuckle (*Lonicera subspicata* var. *denudata*), and chamise (*Adenostoma fasciculatum*). This community occurs in the northwestern portion of the study area between Diegan coastal sage scrub and southern mixed chaparral. The total amount of coastal sage scrub/chaparral reported in the Draft MSCP North County Plan area is 5,179 acres, of which, 4,040 acres are located within areas designated as PAMA (County 2009). Approximately 4.5 acres of coastal sage-chaparral transition are mapped on site, which represents less than 0.10 percent (0.09 percent) of the total amount reported in the Draft MSCP North County Plan area.

Southern Mixed Chaparral

Southern mixed chaparral is typically found on granitic soils and is composed of broad-leaved, sclerophyllous shrubs that can reach 6 to 10 feet in height and form dense, often nearly impenetrable stands with poorly developed understories. Depending upon relative proximity to the coast, characteristic species may include, for example, chamise, Ramona ceanothus (*Ceanothus tomentosus*), Nuttall’s scrub oak (*Quercus dumosa*), toyon (*Heteromeles arbutifolia*), mission manzanita (*Xylococcus bicolor*), sugar bush (*Rhus ovata*), spiny redberry, bushrue (*Cneoridium dumosum*), and San Diego honeysuckle (Holland 1986). Dominant species in this vegetation community in the study area include black sage and mountain mahogany (*Cercocarpus betuloides*). Other shrubs present in the study area include Ramona ceanothus, mission manzanita, sugar bush, toyon, chamise, spiny redberry, scrub oak (*Quercus berberidifolia*), saw-toothed goldenbush (*Hazardia squarrosa* var. *grindelioides*), bushrue, and San Diego honeysuckle. Southern mixed chaparral in the study area is located around the southern and eastern edges of the study area. Approximately 46.8 acres of southern mixed chaparral are mapped on site.

Portions of this vegetation community were preliminarily classified as mafic southern mixed chaparral where the NRCS has roughly mapped Las Posas fine and stony fine sandy loams. Because the results of the geotechnical investigations of the site and initial botanical inventory did not strongly agree with the USDA soils mapping, further investigation was conducted to more definitively classify the vegetation. On January 13, 2016, HELIX biologists collected data at four points within southern mixed chaparral: two in areas mapped as Las Posas soils and two in areas mapped as Cieneba-Fallbrook rocky sandy loam. Upon visiting sites 1 and 4, which

represented sites in areas mapped as Las Posas soils, it was evident that the soil did not have the characteristic red color and other visible attributes expected from mafic soils. There was a small patch of red soil to the north of site 1, but this area had been heavily disturbed and did not have sufficient vegetation cover to classify the vegetation type.

Each sampling point was evaluated using the CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form (Appendix M). For comparison purposes, the results were classified according to the Vegetation Classification Manual for Western San Diego County. Site 1, located in the northeast portion of the site in an area mapped as Las Posas stony fine sandy loam, was identified as *Adenostoma fasciculatum* – *Xylococcus bicolor* association. Sites 2 and 3, in the central part of the site mapped as Cienega-Fallbrook rocky sandy loam, were identified as *Adenostoma fasciculatum* – *Xylococcus bicolor* – *Ceanothus verrucosus* association. Site 4, in the central portion of the site in an area mapped as Las Posas fine sandy loam, was identified as *Ceanothus verrucosus* association. This shows that the presence or absence of Las Posas soils was not the determining factor in the vegetation association, since the two sites on Las Posas soils were less similar to each other than they were to the sites on granitic soil.

None of the on-site chaparral vegetation met the definition of mafic southern mixed chaparral in Oberbauer (2008). Mafic chaparral is described as dominated by chamise and Cleveland sage (*Salvia clevelandii*). Three of the four sample sites supported chamise, but Cleveland sage was not observed anywhere on the project site. Chamise is not a mafic indicator species since it is also common in granitic southern mixed chaparral and other chaparral types. The other indicator species associated with mafic southern mixed chaparral are Parry's tetracoccus (*Tetracoccus dioicus*), beargrass (*Nolina interrata* and *cismontana*), Peninsular manzanita (*Arctostaphylos peninsularis*), felt-leaf monardella (*Monardella hypoleuca* var. *lanata*), and fire reedgrass (*Calamagrostis koeleriodes*). None of these mafic indicator species were observed on site. By contrast, the on-site chaparral supports 10 of the 19 characteristic species for granitic southern mixed chaparral: chamise, Ramona ceanothus, wart-stemmed ceanothus (*Ceanothus verrucosus*), spice-bush (*Cneoridium dumosum*), toyon, southern honeysuckle (*Lonicera subspicata*), laurel sumac, spiny redberry (*Rhamnus crocea*), sugar bush, and mission manzanita. Wart-stemmed ceanothus is also a dominant species in southern maritime chaparral, but the site lacks Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), which is co-dominant with wart-stemmed ceanothus in southern maritime chaparral. Further, the site is not located within the coastal fog belt or on weathered sands, and does not support characteristic maritime species such as San Diego sea dahlia (*Coreopsis maritima*) or Torrey pine (*Pinus torreyana*). Therefore, the on-site chaparral is more correctly classified as southern mixed chaparral than southern maritime chaparral.

Finally, the vegetation composition of the on-site chaparral is substantially consistent with the composition of chaparral immediately off site to the south in the Del Dios Highlands Preserve. The following is reported in the County's Resource Management Plan (2011b) for the Del Dios Highlands Preserve: "Wart-stemmed ceanothus (*Ceanothus verrucosus*) and mission manzanita (*Xylococcus bicolor*) are co-dominant in the southern mixed chaparral on site. Other species characteristic of southern mixed chaparral within the Preserve include Eastwood manzanita (*Arctostaphylos glandulosa* ssp. *glandulosa*), chamise (*Adenostoma fasciculatum*), laurel sumac (*Malosma laurina*), toyon (*Heteromeles arbutifolia*), mountain mahogany (*Cercocarpus*

minutiflorus), holly-leaved cherry (*Prunus ilicifolia* ssp. *ilicifolia*), summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), and Ramona lilac (*Ceanothus tomentosus*). Unique for this region is also the occurrence of the rare Encinitas baccharis (*Baccharis vanessae*).” The chaparral type on Del Dios Highlands Preserve, which occurred on Cieneba-Fallbrook, San Miguel-Exchequer, and Las Posas soils, was classified as southern mixed chaparral. There was no mafic or maritime chaparral identified by the County within the Del Dios Highlands Preserve.

For the reasons detailed above, the on-site chaparral was classified and mapped according to its observed vegetation composition rather than the NRCS soil mapping, and was determined to most closely match granitic southern mixed chaparral, not mafic southern mixed chaparral or southern maritime chaparral.

Non-native Grassland

Non-native grassland is a mixture of annual grasses and broad-leaved, herbaceous species. Annual species comprise from 50 percent to more than 90 percent of the vegetative cover, and most annuals are non-native species. Non-native grasses typically comprise at least 30 percent of the vegetative cover, although this percentage can be much higher in some years and lower in others, depending on land use and climatic conditions. Usually, the grasses are less than 3 feet in height and form a continuous or open cover. Emergent shrubs and trees may be present but do not comprise more than 15 percent of the total cover (County 2010b). Most of the non-native grasses originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. In the study area, non-native grassland is dominated by common ripgut grass (*Bromus diandrus*) and oats (*Avena* sp.). A variety of other non-native grasses and forbs are also present. The total amount of non-native grassland reported in the Draft MSCP North County Plan area is 22,355 acres, of which, 14,841 acres are located within areas designated as PAMA (County 2009). Non-native grassland occurs throughout the northern half of the study area. Approximately 42.4 acres of non-native grassland are mapped on site, which together represent less than 1.0 percent (0.19 percent) of the total amount reported in the Draft MSCP North County Plan area.

Southern [Willow] Riparian Forest

Southern riparian forests are composed of winter-deciduous trees (such as willows [*Salix* spp.], Fremont cottonwood [*Populus fremontii*], and western sycamore (*Platanus racemosa*)) that require water near the soil surface. The canopies of individual tree species overlap so that a canopy cover of 100 percent may occur in the upper tree stratum. The southern riparian forest in the study area is dominated by willows, so it has been labeled southern [willow] riparian forest. Dominant species observed in this vegetation community in the study area include red willow (*Salix laevigata*), arroyo willow (*S. lasiolepis*), black willow (*S. gooddingii*), and Fremont cottonwood. Other species include mule fat (*Baccharis salicifolia*), cattail (*Typha* sp.), and great marsh evening-primrose (*Oenothera elata* ssp. *hookeri*). Approximately 0.71 acres of southern willow riparian forest associated with Escondido Creek are mapped in the off-site portion of the study area.

Mule Fat Scrub

Mule fat scrub is a depauperate, shrubby, riparian scrub community dominated by mule fat and interspersed with small willows. This vegetation community occurs along intermittent stream channels with a fairly coarse substrate and moderate depth to the water table. This early seral community is maintained by frequent flooding, the absence of which could lead to a riparian woodland or forest (Holland 1986). In some environments, limited hydrology may favor the persistence of mule fat. Mule fat scrub in the study area occurs as a very small patch of mule fat along Escondido Creek. Approximately 0.01 acre of mule fat scrub associated with Escondido Creek is mapped in the off-site portion of the study area.

Coast Live Oak Woodland

Coast live oak woodland is an evergreen woodland community, dominated by coast live oak (*Quercus agrifolia*) trees that may reach a height of 35 to 80 feet. The shrub layer may consist of plant species such as toyon, Mexican elderberry (*Sambucus mexicana*), fuchsia-flowered gooseberry (*Ribes speciosum*), or laurel sumac. Other species may also be present such as poison oak (*Toxicodendron diversilobum*), monkeyflower (*Mimulus aurantiacus*), Pacific pea (*Lathyrus vestitus*), and chickweed (*Stellaria media*). This community typically occurs on north-facing slopes and in shaded ravines (Holland 1986). Coast live oak is the dominant species in this community in the study area. Approximately 0.9 acre of coast live oak woodland occurs in gullied uplands along an ephemeral drainage in the southwestern portion of the site.

Eucalyptus Woodland

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* sp.), an introduced genus that produces a large amount of leaf and bark litter. The chemical and physical characteristics of this litter, combined with the shading effects of the trees, limit the ability of other species to grow in the understory, and floristic diversity decreases. If sufficient moisture is available, eucalyptus becomes naturalized and is able to reproduce and expand its cover. Eucalyptus woodland occurs around a residence in the southwestern portion of the study area. Approximately 0.3 acre of this habitat type is mapped on site.

1.4.6 Flora

HELIX identified a total of 124 plant species in the study area, of which 42 (34 percent) are non-native species (Appendix A).

1.4.7 Fauna

A total of 87 animal species were observed or otherwise detected in the study area during the biological surveys, including 14 invertebrate, 2 reptile, 66 bird, and 5 mammal species (Appendix B).

1.4.8 Sensitive Vegetation Communities/Habitat Types

Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the State CEQA Guidelines. Table 5 of the County guidelines (County 2010a, 2010b) provides a list of habitat mitigation ratios for each vegetation community type.

Sensitive vegetation communities/habitat types mapped in the study area include Diegan coastal sage scrub (including disturbed), coastal sage-chaparral transition, southern mixed chaparral, non-native grassland, southern [willow] riparian forest, mule fat scrub, and coast live oak woodland. Non-native vegetation, disturbed habitat, urban/developed, and eucalyptus woodland do not meet the definition of sensitive.

1.4.9 Special Status Plant Species

Special status plant species have been afforded special status and/or recognition by the USFWS, CDFW, and/or the County and may also be included in the CNPS' Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exists naturally in small populations.

Special Status Plant Species Observed

Five special status plant species were observed in the study area, as listed below in alphabetical order by common name. Each is also described below and shown on Figure 8.

Ashy spike-moss (*Selaginella cinerascens*)

Status: CNPS Rare Plant Rank 4.1; County List D (Appendix E)

Distribution: Orange and San Diego counties; northwestern Baja California, Mexico.

Habitat(s): This perennial, rhizomatous herb can be found on flat mesas in coastal sage scrub and chaparral.

Presence in the Study Area: Four patches of ashy spike-moss, ranging in size from one to 14 square feet, were found in southern mixed chaparral in the southern-central portion of the study area.

San Diego sagewort (*Artemisia palmeri*)

Status: CNPS Rare Plant Rank 4.2; County List D (Appendix E).

Distribution: Coastal San Diego County; Baja California, Mexico.

Habitat(s): This perennial deciduous shrub that may bloom from February to September can be found along stream courses, often within coastal sage scrub or southern mixed chaparral.

Presence in the Study Area: San Diego sagewort was observed in two locations in coast live oak woodland, and three were observed in southern mixed chaparral. All locations were in the southwestern portion of the study area.

Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*)

Status: CNPS Rare Plant Rank 4.2; County List D (Appendix E).

Distribution: Los Angeles, San Bernardino, San Luis Obispo, Ventura, and San Diego counties; Baja California, Mexico.

Habitat(s): Moist, saline, or alkaline soils in coastal salt marshes and riparian marshes are the preferred habitats of this perennial, rhizomatous herb that may bloom from March to June.

Presence in the Study Area: A single individual of southwestern spiny rush was observed in the study area near the Country Club Drive crossing of Escondido Creek.

Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)

Status: CNPS Rare Plant Rank 1B.2; County List A. This species is proposed as a Covered Species under the Draft North County Plan (Appendix E).

Distribution: Orange, Riverside, and San Diego counties south into Baja California, Mexico.

Habitat(s): This perennial evergreen shrub that may bloom from April to June occurs on mesic north-facing slopes in southern mixed chaparral. Rugged steep drainages seem to be a preferred location for isolated individuals.

Presence in the Study Area: A total of 27 summer holly individuals occur on site, most of them in the southern portions of the study area.

Wart-stemmed ceanothus (*Ceanothus verrucosus*)

Status: CNPS Rare Plant Rank 2B.2; County List B. This species is proposed as a Covered Species under the Draft North County Plan (Appendix E).

Distribution: Western San Diego County and adjacent Baja California, Mexico.

Habitat(s): This perennial evergreen shrub that may bloom from December to May occurs in chaparral.

Presence in the Study Area: The study area supports an estimated 23,113 wart-stemmed ceanothus. A major population of approximately 21,150 wart-stemmed ceanothus individuals occurs in the southern portions of the study area.

Special Status Plant Species with Potential to Occur

Special status plant species that were not observed but may have potential to occur in the study area are listed in Appendix C. There are no special status plant species with a high potential to occur on site.

1.4.10 Special Status Animal Species

Special status animal species include those that have been afforded special status and/or recognition by the USFWS, CDFW, and/or the County. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

Special Status Animal Species Observed or Otherwise Detected

Thirteen special status animal (bird) species have been observed or detected in the study area. Each species is listed below in alphabetical order by common name, is described, and is shown on Figure 8.

American peregrine falcon (*Falco peregrinus anatum*)

Status: Federal Bird of Conservation Concern; State Fully Protected; County Group 1 (Appendix E).

Distribution: Rare in San Diego County year-round but more abundant near the coast and in winter.

Habitat(s): Generally, areas with cliffs near water where prey (shorebirds and ducks) is concentrated. Preferred hunting areas are agricultural fields, meadows, marshes, and lakes. Nesting usually occurs on cliff ledges or in a scrape in debris and occasionally in the old nests of other birds.

Presence in the Study Area: Two individual American peregrine falcons were observed flying over the eastern portion of the study area on a single occasion during the 2014 surveys.

Barn owl (*Tyto alba*)

Status: County Group 2 (Appendix E).

Distribution: Occurs throughout much of San Diego County.

Habitat(s): Woodland habitats and open areas with trees or other structures that can offer shelter.

Presence in the Study Area: One barn owl was observed roosting in a Peruvian pepper tree (*Schinus molle*) on a single occasion during the 2014 surveys.

Coastal California Gnatcatcher (*Poliophtila californica californica*)

Status: Federal Listed Threatened; State Species of Special Concern; County Group 1. This species is proposed as a Covered Species under the Draft North County Plan (Appendix E).

Distribution: In San Diego County, occurs throughout coastal lowlands.

Habitat(s): Coastal sage scrub, coastal bluff scrub, and coastal sage-chaparral scrub.

Presence in the Study Area: During the protocol survey, one pair of coastal California gnatcatcher was observed moving among patches of Diegan coastal sage scrub and building a nest in an area of Diegan coastal sage scrub and southern mixed chaparral. The nest was being constructed in chamise approximately 2.5 feet off the ground. In addition, on two occasions during site visits performed outside of the breeding season, a gnatcatcher was incidentally detected by call moving through the southern mixed chaparral in the southern/central portion of the site proposed as biological open space for the project.

Great blue heron (*Ardea herodias*)

Status: County Group 2 (Appendix E).

Distribution: Occurs throughout San Diego County.

Habitat(s): Wetland habitats, but can be observed foraging away from water.

Presence in the Study Area: One great blue heron was observed in Escondido Creek on a single occasion during the 2014 surveys.

Green heron (*Butorides virescens*)

Status: County Group 2 (Appendix E).

Distribution: In San Diego County, most widespread in the northern part of coastal lowlands.

Habitat(s): Small ponds in the northern part of the County or major rivers and lakes in the southern part (Unitt 2004).

Presence in the Study Area: One green heron was observed in Escondido Creek on a single occasion during the 2014 surveys.

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

Status: Federal Listed Endangered; State Listed Endangered; County Group 1. This species is proposed as a Covered Species under the Draft North County Plan (Appendix E).

Distribution: Observed throughout coastal southern California in the breeding season, south of Santa Barbara, but in smaller numbers in foothills and mountains.

Habitat(s): Riparian woodland, riparian forest, mule fat scrub, and southern willow scrub.

Presence in the Study Area: A single, unpaired, male least Bell's vireo was observed in Escondido Creek, primarily using habitat immediately east of Country Club Drive, during seven of the eight site visits (Figure 8). A male and female least Bell's vireo were observed on May 21, 2014 immediately west of Country Club Drive; however, those individuals were only observed on that one occasion and were not suspected to be breeding, although suitable breeding habitat occurs. A fourth least Bell's vireo was audible on two occasions at the far western portion of the survey area. It is believed that a temporary influx of least Bell's vireo into the survey area followed the mid-May 2014 "Cocos Fire" that likely displaced birds in the surrounding area.

Northern harrier (*Circus cyaneus*)

Status: State Species of Special Concern; County Group 1. This species is proposed as a Covered Species under the Draft North County Plan (Appendix E).

Distribution: In San Diego County, distribution primarily scattered throughout lowlands but can also be observed in foothills, mountains, and desert.

Habitat(s): Open grassland and marsh

Status on site: One northern harrier was observed flying low over chaparral in the central portion of the site on a single occasion during the 2016 field work.

Red-shouldered hawk (*Buteo lineatus*)

Status: County Group 1 (Appendix E).

Distribution: In San Diego County, observed throughout coastal slope.

Habitat(s): Riparian woodland, oak woodland, orchards, eucalyptus groves, or other areas with tall trees.

Presence in the Study Area: A single red-shouldered hawk was observed in perch and calling near Escondido Creek on a single occasion during the 2014 surveys.

Turkey vulture (*Cathartes aura*)

Status: County Group 1 (Appendix E).

Distribution: Observed throughout San Diego County with the exception of extreme coastal San Diego where development is heaviest.

Habitat(s): Foraging habitat includes most open habitats with breeding occurring in crevices among boulders.

Presence in the Study Area: Two turkey vultures were observed on separate occasions during the 2014 surveys soaring over coastal sage scrub and chaparral in the central and southern portions of the study area.

Western bluebird (*Sialia mexicana*)

Status: County Group 2 (Appendix E).

Distribution: Occurs throughout much of San Diego County but concentrated in foothills and mountains.

Habitat(s): Open woodlands and areas where meadows or grasslands occur among groves of oak or pine.

Presence in the Study Area: Western bluebird was observed flying over non-native grassland adjacent to Country Club Drive on two occasions during the 2014 surveys.

White-tailed kite (*Elanus leucurus*)

Status: State Fully Protected; County Group 1 (Appendix E).

Distribution: Found year-round primarily within lowlands of California west of the Sierra Nevada range and southeastern deserts.

Habitat(s): Riparian woodlands and oak or sycamore groves adjacent to grassland.

Presence in the Study Area: One white-tailed kite was observed flying over the northwestern portion of the study area on a single occasion during the 2014 surveys.

Yellow-breasted chat (*Icteria virens*)

Status: State Species of Special Concern; County Group 1. This species is proposed as a Covered Species under the Draft North County Plan (Appendix E).

Distribution: Occurs throughout San Diego County's coastal lowlands in the breeding season.

Habitat(s): Mature riparian woodland.

Presence in the Study Area: Yellow breasted chat was observed in Escondido Creek during the 2014 surveys.

Yellow warbler (*Setophaga petechia*)

Status: Federal Bird of Conservation Concern, State Species of Special Concern; County Group 2 (Appendix E).

Distribution: Observed throughout California during the breeding season with rare sightings in winter.

Habitat(s): Riparian woodland, riparian forest, mule fat scrub, and southern willow scrub.

Presence in the Study Area: Yellow warbler was observed in Escondido Creek during the 2014 surveys.

Special Status Animal Species with Potential to Occur

Special status animal species that were not observed but may have potential to occur in the study area are listed in Appendix D. The 20 additional special status animal species that were not observed but still are considered to have a high potential to occur in the study area are coast horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepis virgulata*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), Coronado skink (*Plestiodon skiltonianus interparietalis*), red diamond rattlesnake (*Crotalus ruber*), orange-throated whiptail (*Aspidoscelis*

hyperythra), California horned lark (*Eremophila alpestris actis*), Cooper's hawk (*Accipiter cooperi*), ferruginous hawk (*Buteo regalis*), grasshopper sparrow (*Ammodramus savannarum*), loggerhead shrike (*Lanius ludovicianus*), prairie falcon (*Falco mexicanus*), red-shouldered hawk (*Buteo lineatus*), sharp-shinned hawk (*Accipiter striatus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Dulzura California pocket mouse (*Chaetodipus californicus femoralis*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), and southern mule deer (*Odocoileus hemionus*).

In addition, a protocol Hermes copper butterfly (*Lycaena hermes*) survey conducted in 2014 was negative, indicating the site is not occupied by the Hermes copper. This species does not currently have any federal or State sensitivity status, but is considered a County Group 1 sensitive species. It occurs in San Diego County, south of Fallbrook to northern Baja California, Mexico, within southern mixed chaparral and coastal sage scrub with mature specimens of its larval host plant, spiny redberry (*Rhamnus crocea*). The results of Hermes copper butterfly habitat mapping are included as Figure 9. Although not occupied, the site does support a limited amount of potential Hermes copper habitat as defined by the County guidelines; however, the potential for the species to colonize the site in the future is considered low. The nearest known Hermes copper butterfly location is 1.75 miles away to the southwest. Because the site is more than one mile from a known Hermes copper location, the negative survey results are valid for a period of three years in accordance with County guidelines.

Raptor Foraging

Several raptors were observed, on occasion, during the 2014 biological surveys. On most occasions, these raptors were observed flying and soaring over non-native grassland and chaparral within the study area or perching on taller trees in stands of non-native vegetation and riparian forest. Raptors observed during surveys include turkey vulture, barn owl, red-shouldered hawk, red-tailed hawk, peregrine falcon, American kestrel, northern harrier, and white-tailed kite.

The County (2010b) defines raptor foraging habitat as, "Land that is a minimum of 5 acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (i.e., burrows, raptor nests, etc.)." The non-native grassland in the study area is considered raptor foraging habitat based on this definition since it occupies greater than 40 acres, and it evidently supports burrows of common small mammals, namely, California ground squirrel. The use of the non-native grassland as foraging habitat for raptors observed during 2014 surveys is explained in greater detail below.

The turkey vulture is widespread through San Diego County and commonly observed soaring over rugged terrain and open areas, such as it was over the survey area during the 2014 surveys. The foraging value of the non-native grassland for turkey vulture is low considering this species is an opportunistic scavenger, feeding on carrion and other prey items that can be found over a wide variety of habitat types.

The barn owl is an uncommon resident in San Diego County. It requires open ground over which it can hunt and feeds primarily upon a variety of mice, rats, voles, pocket gophers, and ground squirrels (Zeiner et al. 1990b). Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel were observed and detected in the study area, and the barn owl may forage there. Barn owls are "abundant" and "very common," respectively, in California, however (Zeiner et al. 1990a), and the species has likely benefited from the clearing of scrub and the erection of structures that accompany low-intensity development (Unitt 2004), as is evident in the local area. Clearing of scrub may benefit the pocket gopher and ground squirrel, and indeed, both of these species can be found in association with low-intensity development or other development with associated open space. They are known to damage slopes (through burrowing) and crops, other plantings, and irrigation systems through chewing and foraging for food (University of California 2014a, 2014b). Therefore, it would seem that ample prey and foraging opportunities for the barn owl occur within the study area.

The red-tailed hawk is the most widespread bird of prey in San Diego County and in the United States. The red-shouldered hawk is an uncommon resident of rural and urbanized areas of San Diego County, often found using within open woodlands in urbanized areas, such as that which exists in the immediate vicinity of the study area. Both species use any open area for foraging, despite disturbance, and will take advantage of small patches of undeveloped land, although they favor grasslands with scattered trees. Both species are known to tolerate considerable urbanization. Therefore, the non-native grassland in the study area, while used by the red-tailed hawk and red-shouldered hawk, could be utilized as foraging habitat for these two relatively common and widespread species.

The peregrine falcon is an uncommon resident of San Diego County that hunts on the wing, in flight, primarily for birds. According to the *San Diego County Bird Atlas*, the peregrine falcon typically stays near the coast during the breeding season, but extends inland during the winter (Unitt 2004). This species forages over a wide variety of habitat types for birds, and could use adjacent preserved lands. Because the species hunts on the wing over a wide variety of habitat types and primarily for birds, non-native grassland is not a habitat type that is characteristic of prime foraging habitat for this falcon. The non-native grassland in the study area, although suitable and evidently used by the peregrine falcon, is not essential to the species. American kestrel is a common and widespread falcon, well distributed across San Diego County. It eats mostly insects and other invertebrates, as well as small rodents and birds. The non-native grassland in the study area could be utilized as foraging habitat for the American kestrel.

The northern harrier is an uncommon resident of San Diego County that hunts on the wing, flying low over the ground. Prey include mostly small mammals and birds; also large insects, snakes, lizards, toads and frogs. The foraging value of the non-native grassland for northern harrier is probably low considering that this species was observed only once in all of the surveys conducted on the site. The harrier was observed in an area of chaparral. The non-native grassland in the study area could be utilized as foraging habitat for the northern harrier.

According to Unitt (2004), the white-tailed kite roosts communally, has a history of steep rises and falls in its population, and is concentrated on a single species of prey, the California vole (*Microtus californicus*). While the white-tailed kite is found in the County year-round, its



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numbers vary with those of the California vole and the shifting of those communal roosts (Unitt 2004). The California vole is a widespread and common herbivore often found in grassland and meadow habitats with friable soil (Zeiner et al. 1990a), and while the California vole was not specifically observed or otherwise detected in the study area, it is very possible that it is present. No white-tailed kite roosts (or nests) were observed in the study area, and none have been observed during HELIX's biological monitoring of Escondido Creek upstream and downstream of the study area since 2012 (trees in Escondido Creek have the highest potential to support white-tailed kite roosting and nesting in the study area and vicinity). Habitats favoring California vole (e.g., ungrazed or lightly grazed grasslands, agriculture, and grass-dominated wetlands) support more white-tailed kites, and it may be that adequate foraging habitat adjacent to nest sites is important (Moore 2000). Based on checklists submitted to eBird.org, the white-tailed kite is more common at Lake Hodges than at the Del Dios Highlands Preserve adjacent to the site. The white-tailed kite was observed in one third of the 132 checklists submitted for the Lake Hodges-Del Dios hot spot, versus one quarter of the four checklists submitted for the Del Dios Highlands Preserve hot spot. Because the kite is known to use preserved lands in the area, it is not likely to be dependent on the project site for foraging habitat, although it could utilize the site for foraging. With respect to the study area's functions and values for kites, it can be concluded that: 1) the observation of a single white-tailed kite on a single occasion in the study area signifies that the non-native grassland may not support a high prey base of California vole; 2) the non-native grassland in the study area is not evidently used as a primary foraging area and is not associated with a consistent white-tailed kite nesting site in the local area; and/or 3) the non-native grassland in the study area does not appear to be essential to local populations of the species.

1.4.11 Jurisdictional Waters and Wetlands

Waters of the U.S./State

Potential waters of the U.S. under the jurisdiction of the USACE in the study area include wetland waters of the U.S. within Escondido Creek and non-wetland waters of the U.S. within the unnamed ephemeral tributaries to Escondido Creek in the southern portion of the study area (Table 2; Figure 10). The waters of the U.S. summarized below would also represent waters of the State subject to RWQCB jurisdiction pursuant to CWA Section 401. There are no isolated waters of the State subject to RWQCB jurisdiction, exclusively, pursuant to Porter-Cologne.

Table 2 WATERS OF THE U.S./STATE				
USACE / RWQCB JURISDICTION	PROJECT SITE		OFF-SITE IMPACT AREAS	
	Area (acres)	Length (feet)	Area (acres)	Length (feet)
Wetland Waters of the U.S./State	--	--	0.33	237
Non-Wetland Waters of the U.S./State	0.15	4,814	0.02	50
TOTAL	0.15	4,814	0.35	287

Streambed and Riparian Habitat

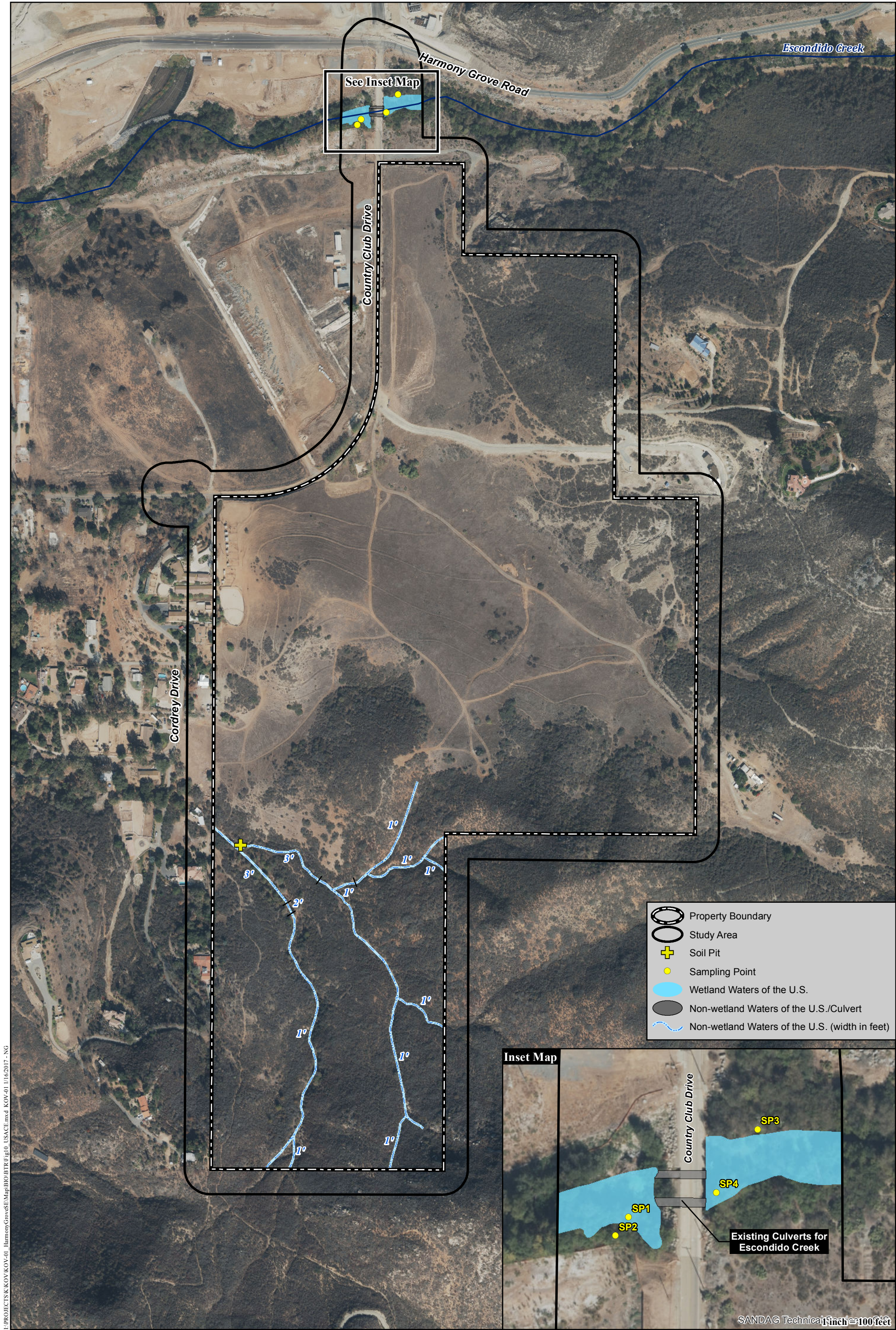
Streambed and riparian habitat under the jurisdiction of the CDFW within the study area consists of mule fat scrub, southern willow riparian forest, coast live oak woodland, and unvegetated streambed as presented in Table 3 and shown on Figure 11.

Table 3 STREAMBED AND RIPARIAN HABITAT				
CDFW JURISDICTION	PROJECT SITE		OFF-SITE IMPACT AREAS	
	Area (acres)	Length (feet)	Area (acres)	Length (feet)
VEGETATED STREAMBED				
Mule fat scrub	--	--	0.01	0
Southern [willow] riparian forest	--	--	0.71	237
Coast live oak woodland	0.89	515	0.01	0
UNVEGETATED STREAMBED				
Streambed	0.19	4,250	0.02	50
TOTAL	1.08	4,765	0.75	287

County Resource Protection Ordinance Wetlands

Areas meeting the criteria to be considered County RPO wetlands (County 2011) in the study area include mule fat scrub and southern willow riparian forest (Table 4; Figure 12). The unnamed ephemeral drainage features in the southern portions of the study area do not meet the criteria to be considered County RPO wetlands, as detailed below.

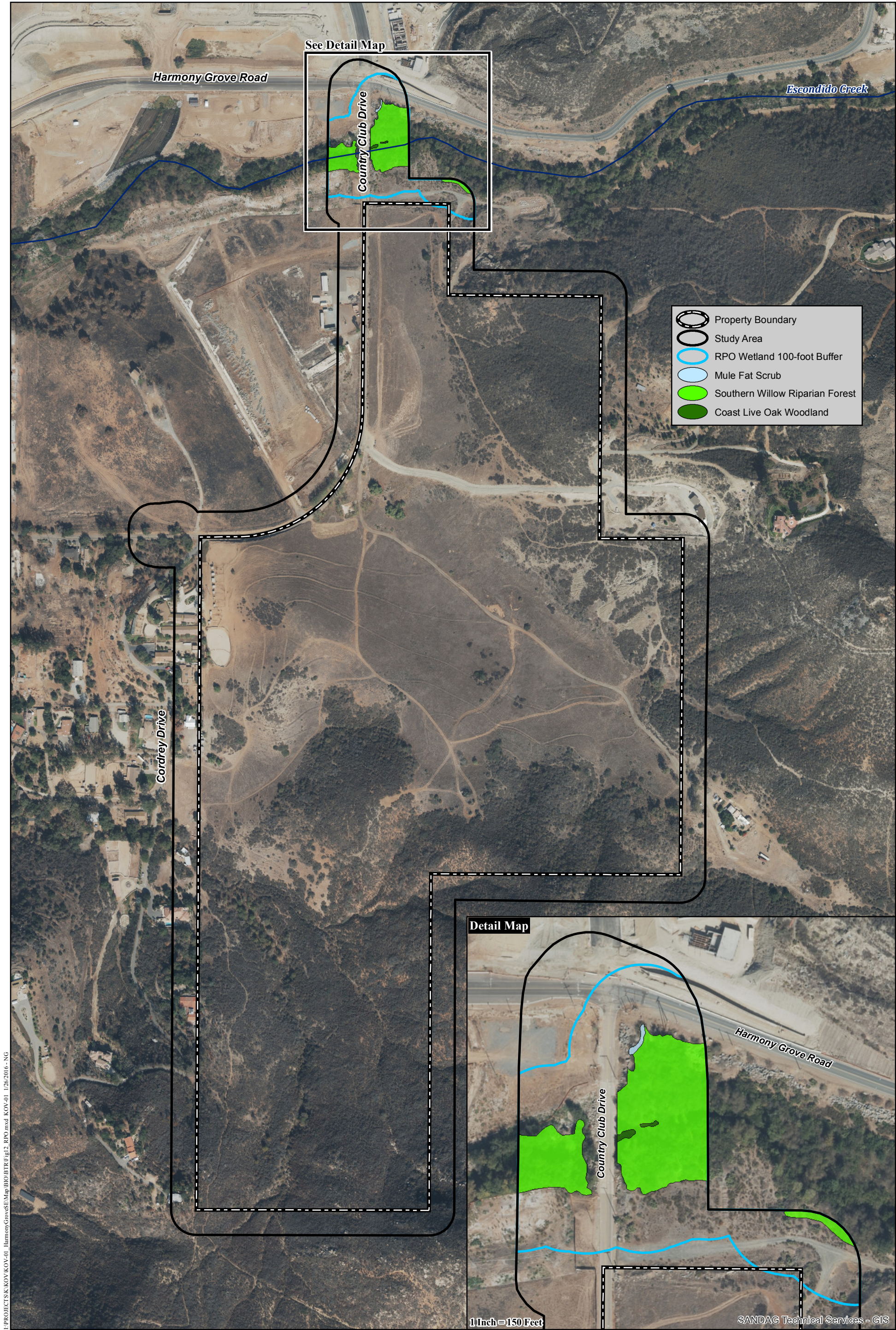
Table 4 RPO WETLANDS		
COUNTY JURISDICTION	PROJECT SITE	OFF-SITE IMPACT AREAS
	Area (acres)	Area (acres)
RPO WETLAND		
Mule fat scrub	--	<0.01
Southern [willow] riparian forest	--	0.71
Coast live oak woodland	--	0.01
TOTAL	--	0.72



Waters of the U.S./State

HARMONY GROVE VILLAGE SOUTH

Figure 10



RPO Wetlands

HARMONY GROVE VILLAGE SOUTH