2.3 Biological Resources

This subchapter describes existing biological conditions within the Proposed Project site and vicinity, identifies associated regulatory requirements and evaluates potential impacts (including cumulative impacts) and mitigation measures related to implementation of the Proposed Project. A Biological Technical Report (BTR) was prepared for the Project by HELIX (2017b), which was prepared in conformance with the County Guidelines for Determining Significance and Report Format and Content Requirements – Biological Resources (County 2010) and is summarized below; the complete report is included as Appendix E of this EIR.

2.3.1 Existing Conditions

2.3.1.1 *Existing Setting*

Land Uses

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 portion of the San Dieguito Community 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, 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 Multiple Species Conservation Program (MSCP), the study area occurs within a Draft Pre-Approved Mitigation Area (PAMA), north of Preserve Areas associated with the Del Dios Highlands Preserve (DDHP) and Elfin Forest Recreational Reserve (EFRR), south and east of Pre-negotiated Take Authorized Areas associated with HGV, and west of PAMA and undesignated City of Escondido lands. The dominant habitat type 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.

Biological Surveys

General biological surveys of the Proposed Project site were conducted, consistent with County Requirements, by HELIX on March 7, July 24 and August 26, 2014, September 4, 2015, and March 31 and April 3, 2017. The study area was examined for general biological data, including vegetation mapping and species inventories. The locations of special status plant and animal species incidentally observed or otherwise detected were mapped.

An initial rare plant survey was conducted in the study area by HELIX on April 30, 2014. A focused inventory of wart-stemmed ceanothus and follow-up survey for Encinitas baccharis 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. Based on the habitat assessments completed as part of the general biological surveys in March and August, year 2014 protocol-level surveys for Hermes copper butterfly (*Lycaena hermes*), burrowing owl (*Athene cunicularia*), coastal California gnatcatcher (*Polioptila californica californica*), and least Bell's vireo (*Vireo bellii pusillus*) were conducted. In accordance with County Guidelines, four surveys for the Hermes copper butterfly were completed between May 21 and July 7, 2014. Four surveys for the burrowing owl were made from April 9 through July 3, 2014 in accordance with California Department of Fish and Wildlife (CDFW) and County guidelines. In accordance with U.S. Fish and Wildlife Service (USFWS) protocol, three surveys for coastal California gnatcatcher were completed in May 2014, and eight surveys for least Bell's vireo were completed in April through July 2014.

A wetland jurisdictional delineation was performed by HELIX on March 14, 2014. A focused 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. In addition, the study area was examined for evidence of vernal pools during all biological surveys.

All portions of the Project site were surveyed for potential resources and evaluated for Project impacts, as were areas anticipated to encompass Country Club Drive upgrades, including the crossing of Escondido Creek. More information on the extent of these surveys is provided in the BTR for this Project (Appendix E).

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 (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. Regardless, 2017 is considered an optimal year, and additional surveys have been completed.

Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. 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 EIR.

Habitats

Eleven vegetation communities/habitat types occur in the study area, as shown on Figure 2.3-1, *Vegetation and Sensitive Resources*. The numeric codes in parentheses following each community/habitat type name are from the Holland classification system (Holland 1986), as added to by Oberbauer (2008), as presented in the County's Biology Guidelines (County 2010). 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 and tree of heaven. It appears that these trees were purposely planted around a former home site and may have spread to other small areas of the study area. Non-native vegetation also occurs around an off-site 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 2010). 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 is 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 2010). 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 is 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 (hard-leaved plants adapted to arid conditions) 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 2009e). Approximately 4.5 acres of coastal sage-chaparral transition is 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 (*Cneoridum 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 is mapped on site.

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 2010). 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 2009e). Non-native grassland occurs throughout the northern half of the study area. Approximately 42.4 acres of non-native grassland is 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. With respect to the local area, the next largest patch of non-native grassland is an approximately 20-acre patch located immediately west of the site near the Harmony Grove Spiritualist Association (HGSA) center. Additional patches, approximately 4.0 to 2.0 acres each, occur further to the northwest and west of the HGSA center, and an approximately 7.0-acre patch occurs further to the west, on the north and west side of Harmony Grove Road, at the base of the slope immediately adjacent to Wilgen Drive. Additional non-native grassland occurs further to the north of the site, adjacent to HGV, and further to the northeast, in the vicinity of Harmony Grove Road and Citracado Parkway.

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 acre of southern willow riparian forest associated with Escondido Creek is mapped in the off-site portion of the study area.

Mule Fat Scrub

Mule fat scrub is a depauperate (stunted), 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 (intermediate) 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 along Escondido Creek; where approximately 0.01 acre 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). Approximately 0.9 acre of coast live oak woodland occurs in gullied uplands along an ephemeral drainage in the southwestern portion of the Project 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 an off-site residence in the southwestern portion of the study area. Approximately 0.3 acre of this habitat type is mapped on site.

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 2010) 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.

Jurisdictional Wetlands/Waters

The Proposed Project site contains jurisdictional drainages subject to regulation by the USACE, RWQCB, CDFW and County. The site does not contain any vernal pools. The USACE regulates wetland and non-wetland Waters of the U.S. (WUS) protected under Section 404 of the CWA; the RWQCB regulates wetland and non-wetland Waters of the State protected under Section 401 of the CWA and State Porter-Cologne Water Quality Control Act (Porter-Cologne); the CDFW regulates streambed and riparian habitat protected under the Fish and Game Code (FGC); and the County regulates wetlands through its RPO. On-site drainages and the crossing of Escondido Creek by Country Club Drive were evaluated for potential jurisdictional status.

Impacts to jurisdictional wetlands/waters would require consultation and approvals from federal and State agencies, including a Section 404 Permit from USACE, 401 Certification from the San Diego RWQCB and a 1602 Streambed Alteration Agreement (SAA) from CDFW.

USACE Jurisdiction

Through implementation of the CWA, the USACE claims jurisdiction over waterways that are, or drain to, "WUS" or "waters." The definition of "waters" includes (but is not limited to) inland waters; lakes, rivers, and streams that are navigable; tributaries to these waters; and wetlands adjacent to these waters or their tributaries. The jurisdictional limit of non-wetland waters (i.e., creeks and drainages) is the ordinary high water mark. The jurisdictional limit of wetlands is the upper limit of the wetland. Delineations of wetland limits were conducted for the Proposed Project according to the procedures found in the Wetlands Delineation Manual (USACE 1987).

USACE wetlands must satisfy criteria to three parameters: vegetation, soils, and hydrology. If any single parameter does not contain a positive wetland indicator, the site is not a USACE jurisdictional wetland. Where USACE wetlands are present, projects may be permitted on an individual basis or may be covered under one of several approved nationwide permits. Individual permits are required when more than 300 linear feet of drainages, more than 0.5 acre of wetlands, or any vernal pools would be impacted.

All areas with depressions or drainage channels were evaluated for the presence of WUS, including jurisdictional wetlands. If an area was suspected of being a wetland, vegetation and hydrology indicators were noted, and a soil pit was dug and described. The area was then determined to be a federal (USACE) wetland if it satisfied the three wetland criteria (vegetation, hydrology and soil). In most cases, two sample points were evaluated, one inside the suspected wetland, and one where the hydrology and/or vegetation criteria were not satisfied. Drainages lacking evidence of wetland hydrology (i.e., inundation for more than five percent of the growing season) were considered non-wetland WUS.

Potential WUS under the jurisdiction of the USACE in the study area include wetland WUS within Escondido Creek and non-wetland WUS within the unnamed ephemeral tributaries to Escondido Creek in the southern portion of the study area (Table 2.3-1, *Waters of the U.S./State* and Figure 2.3-2, *Waters of the U.S./State*).

RWQCB Jurisdiction

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 (Table 2.3-1 and Figure 2.3-2). Waters of the State were delineated on the site consistent with the methods used for WUS.

CDFW Jurisdiction

Under Section 1600 of the California FGC, a project applicant may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel or bank of any river, stream or lake, or deposit or dispose of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream or

lake, unless CDFW receives written notification regarding the activity. After said notification is complete, the CDFW must determine whether the activity may substantially adversely affect an existing fish and wildlife resource. The Project Applicant would be required to apply for and receive approval of a Streambed Alteration Agreement (SAA) from CDFW.

A field determination of CDFW jurisdictional boundaries is based on the presence of a channel with a bed and bank(s) and potential riparian vegetation. Jurisdiction usually extends to the top of bank or the outer edge of riparian vegetation, whichever is wider.

Streambed and riparian habitat under the jurisdiction of the CDFW within the study area consist of mule fat scrub, southern willow riparian forest, coast live oak woodland, and unvegetated streambed as presented in Table 2.3-2, *Streambed and Riparian Habitat*, and shown on Figure 2.3-3, *CDFW Jurisdiction.*

San Diego County RPO Wetlands

The County's RPO is more inclusive than the USACE's criteria. Under the RPO, a wetland must only meet one of the following criteria in order to be classified as a wetland: (1) at least periodically the land supports predominantly hydrophytes (plants whose habitat is water or very wet places); (2) the substratum is predominantly undrained hydric soils, or (3) an ephemeral or perennial stream is present, whose substratum is predominantly non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

Areas meeting the criteria to be considered County RPO wetlands in the study area include mule fat scrub and southern willow riparian forest (Table 2.3-3, *RPO Wetlands* and Figure 2.3-4, *RPO Wetlands*). 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.

- These drainages represent erosion features cut within the steep topography and upland landscape that characterizes the southern portions of the study area. The drainage features occur within upland habitat types and do not support a predominance of hydrophytes. Where vegetation occurs, it is composed of upland trees, shrubs, and herbaceous grasses and forbs found in the chaparral and other upland habitat types that encompass the drainage features.

- The drainage features are ephemeral and convey short duration, low volume flows. As such, the underlying soils are not inundated or saturated for sustained periods of time. The soils are sandy loams and non-hydric, including the area characterized by oak woodland, as confirmed by the soil pit evaluated on January 13, 2016. The substratum is not predominantly undrained hydric soil.

- The features are ephemeral and not perennial. The substratum is composed of non-hydric, sandy loam soil. The substratum is not predominately non-soil. The features drain off site into rural residential properties before discharging into Escondido Creek further to the west. They do not contribute substantially to the biological functions or values of wetlands in the drainage system. As such, the drainages do not meet this criterion in the RPO wetlands definition.

Plant Species

HELIX identified a total of 124 plant species in the study area, of which 42 (34 percent) are non-native species (refer to Appendix A of the BTR [EIR Appendix E] for a complete list of identified plants species).

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 exist naturally in small populations.

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, referenced in Appendix E to the BTR, and shown on Figure 2.3-1.

Ashy spike-moss (*Selaginella cinerascens*)
Status: CNPS Rare Plant Rank 4.1; County List D.
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 1 to 14 s.f., 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.
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.
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 MSCP North County Plan.
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 MSCP North County Plan.
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 21,000 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 may have potential to occur in the study area but were not observed are listed in Appendix C of the BTR (EIR Appendix E). Excluding the observed special status plant species noted above, there are no additional special status plant species with a high potential to occur on site.

Animal Species

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 of the BTR [EIR Appendix E]).

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.

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 described in Appendix D of the BTR (EIR Appendix E), and shown on Figure 2.3-1.

American peregrine falcon (*Falco peregrinus anatum*)
Status: Federal Bird of Conservation Concern; State Fully Protected; County Group 1.
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 (a clearing in ground cover made by the falcon) 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.
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 (*Polioptila 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 NCMSCP [Subarea] Plan.
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 (BOS) for the project.

Great blue heron (*Ardea herodias*)
Status: County Group 2.
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.
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 NCMSCP [Subarea] Plan.
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 2.3-1). 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 NCMSCP [Subarea] Plan.
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.
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.
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.
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.
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 NCMSCP [Subarea] Plan.
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.
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 of the BTR (EIR Appendix E). The 20 additional special status animal species considered to have a high potential to occur in the study area but which were not observed are coast horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), 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 fuliginata*).

In addition, a protocol Hermes copper butterfly *(Lycaena hermes)* survey conducted in 2014 was negative. 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*). Although not occupied, the site supports a limited amount of potential Hermes copper habitat as defined in Attachment B of the County's Report Format and Content Requirements for Biological Resources; 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.

Raptor Foraging

Several raptors were observed during the 2014 biological surveys. On most occasions, these raptors were observed flying and soaring over 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 (2010) defines raptor foraging habitat as, "Land that is a minimum of five 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 was found to support burrows of common small mammals (e.g., 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," 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 or other development with associated open space. 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 U.S. The red-shouldered hawk is an uncommon resident of rural and urbanized areas of San Diego County and occurs in open woodlands, often in association with 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 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. 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, including the 36 acres on the adjacent HGV Equestrian Ranch (County 2007m), is suitable and evidently used by the peregrine falcon. 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 is used by the American kestrel, because of the wide range of habitats and locations it can utilize.

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. Northern harrier was observed on a single occasion during 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 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, there are more white-tailed kite occurrences recorded at Lake Hodges than at the DDHP 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 DDHP hot spot. White-tailed kite has potential to occur in the local area and use the site for foraging.

Habitat Connectivity and Wildlife Corridors

Wildlife corridors connect pieces of habitat and allow movement or dispersal of plants and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of their daily routine. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations. A corridor is a specific route that is used for the movement and migration of species, and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of animals and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as "stepping-stones" that are comprised of a fragmented archipelago arrangement of habitat over a linear distance.

Important corridors and linkages have been identified on a local and regional scale throughout the Multiple Habitat Conservation Program (MHCP) in northwestern San Diego County (covering the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista; AMEC Earth & Environmental, *et al*. 2003) and the Draft MSCP North County Plan (County 2008). The planning objectives of most corridors and linkages in western San Diego County include establishing a connection between the northern and southern regional populations of the coastal California gnatcatcher, in addition to facilitating movement and connectivity of habitat for large mammals and riparian bird species.

As noted above, the study area is located within areas identified as PAMA under the Draft MSCP North County Plan. It also occurs in the general vicinity of lands identified as Core Area, but outside of a Linkage Area, in the draft Plan. PAMA in the region is based on the core and linkage concept of landscape-level conservation. The configuration of preserve lands includes large, contiguous areas of habitat supporting important species populations or habitat areas and important functional linkages and movement corridors between them. Appendix G of Appendix E of this EIR identifies the Draft MSCP North County Plan conservation goals for the Harmony Grove Core Area and summarizes how the Project is consistent with those goals (County 2009). With respect to wildlife movement in the region, conservation targets generally include conserving a contiguous riparian corridor in Escondido Creek, and conserving a large core area of upland habitat around DDHP and EFRR. Related to these are conserving access from core upland areas to the Escondido Creek corridor and conserving regional east-west gnatcatcher movement. These conservation targets are discussed in further detail below.

Escondido Creek

In the vicinity of the study area, Escondido Creek functions to facilitate amphibian, bird, and large mammal movement in the local area. The creek provides shelter and resources for breeding and rearing young, a year-round water source and prey items for foraging, and a linear corridor of habitat for dispersal and migration. As evidenced by 2014 surveys, sensitive species such as least Bell's vireo, yellow warbler, green heron, and others use the creek for various life cycle needs. Birds move unobstructed through the local area. Although no evidence of use was observed on the site during surveys, southern mule deer and coyote (*Canis latrans*) likely move through the local area to and from surrounding undeveloped lands, using Escondido Creek as a corridor and foraging resource.

Mule deer are generally crepuscular (active during twilight hours, before dawn and after dusk), but in the immediate vicinity of the Project site, are likely to be more active at night due to human activity in the area. Because of their needs for forage and cover, mule deer have been reported to prefer edges over open or closed habitats; edge habitat is generally considered important to deer because of high habitat diversity within ecotones and easy access to more than one habitat type (Kremsater and Bunnell 1992). Mature chaparral stands provide essential cover and forage for mule deer during parts of the year (Wallmo *et al*. 1981). Mule deer summer foraging sites in California chaparral include riparian areas, seeps, springs, streams, and ponds. In fall, foraging sites include stream bottoms, ridge tops, and northern slopes. In winter, mule deer forage on south slopes and sheltered ridges (Ashcraft 1979). Therefore, with respect to the project site and immediate vicinity, mule deer would be most likely to travel, forage and seek cover at the chaparral-grassland edge, along existing trails, within the chaparral, and within the riparian habitat of Escondido Creek.

Coyote are active day and night, but are generally crepuscular, with peaks in activity at sunrise or sunset. In California, it has been reported that coyotes used habitat edges or ecotones, fuel breaks, existing roads and trails, and open chaparral more than dense, unbroken cover. In southern California where chaparral is adjacent to dense blocks of habitat, coyotes forage at night along edges and return during the day to chaparral cover. The steep slopes and heavy cover of most chaparral communities impede coyote movements (Quinn 1990). Therefore, with respect to the Project site and immediate vicinity, coyote would be most likely to travel, forage and seek cover at the chaparral-grassland edge, along existing trails, and within more-open stages of chaparral.

Within the Project study area, Escondido Creek is disturbed as a result of previous land uses and the existing low-water crossing for Country Club Drive. The Creek has also experienced direct and indirect disturbances from previous agricultural uses when the old dairy farm on HGV was in operation, and it is currently impacted by active construction activities for the HGV development. Country Club Drive currently crosses the Creek perpendicularly as a two-lane road built on rip rap, culverts, and concrete over the low-flow channel. The crossing is depended upon by the residents that live to the east and west of the study area. The existing crossing represents a break in the riparian canopy and physical impediment to wildlife movement through the area.

Wildlife movement functions downstream of the study area are high as the habitat improves in overall quality and the topography steepens, although several residential properties occur that might present barriers and disturbances to wildlife movement. Upstream of the study area, approaching the City of Escondido, the Creek diminishes in quality and function. A few thousand feet upstream of the study area, the Creek becomes heavily infested with non-native vegetation (e.g., Eucalyptus trees), and beyond that farther upstream, the soft-bottomed channel terminates where Enterprise Street crosses the Creek. East of the Enterprise Street crossing, Escondido Creek flows in a concrete-lined channel through urban/developed portions of the City of Escondido from just east of Valley Center Road.

In summary, wildlife movement functions in Escondido Creek are probably highest beginning immediately upstream (east) of the study area and extending downstream (west) to Elfin Forest, with a significant barrier to movement existing within the study area itself at the existing low-water crossing for Country Club Drive.

Del Dios Highlands Preserve – Elfin Forest Recreational Reserve

Abutting the southern boundary of the study area lies the County's DDHP. The Preserve connects to the EFRR and the San Dieguito River Park Joint Powers Authority's Coast-to-Crest Trail, which stretches from Del Mar to Julian. These areas support habitat connections and functional wildlife corridors between the MHCP areas to the north and the Lake Hodges Segment of the South County MSCP Subarea (County 1997) to the south. Most importantly, these areas serve to facilitate regional gnatcatcher and large mammal movement to and from core habitat around Lake Hodges to the east of the study area, and Elfin Forest-San Elijo Hills-Rancho La Costa areas to the south and west.

Intact stands of scrub and chaparral habitat in the southern portions of the study area directly connect with off-site habitat in the DDHP to the south. In essence, the on-site habitat serves as a northern extension of the larger core habitat associated with the DDHP and EFRR. This northern extension abruptly terminates on site, in the southern-central portion of the study area, where the scrub and chaparral transition into non-native grassland. The non-native grassland represents the northern boundary and terminus of the core habitat. The grassland on site does not contribute substantially to movement functions for large mammals in the area, including mule deer and coyote, because these species are primarily crepuscular and prefer habitat edges, existing trails, and other habitat types for movement. The grassland on the site provides no cover and relatively few resources. The core habitat extends into the southern portion of the site and bends around the site to the east to connect with Escondido Creek, as explained below.

A constrained, north-south connection of core habitat between DDHP and Escondido Creek exists around the site to the east and along the eastern boundary. One of the Escondido Creek Open Space properties, owned by the Escondido Creek Conservancy, abuts the study area to the north, northeast, and east. Additional undeveloped lands, rural/estate properties, and lands constrained by steep slopes and rugged terrain occur to the immediate east and southeast of the study area. These lands surround the West Ridge and Rincon MWD water tank area, north to Escondido Creek and the Old Castle Pre-cast property, south to DDHP, east to Del Dios Highway, and west to eastern boundary of the study area. The Escondido Creek Conservancy and Conservation Biology Institute identify the general area as "important for conservation" (ECC and CBI undated) to connect undeveloped lands in the region. Scrub and chaparral in these areas provide a constrained connection of habitat between DDHP and Escondido Creek. The connection is more constrained within the study area and along the eastern boundary due to patchiness of scrub and chaparral habitat, and presence of non-native grassland. Rural residential uses abut the eastern boundary of the study area that present an existing constraint to the connection, although developments are limited to several narrow roadways and residential homes amongst the scrub and chaparral.

Core habitat for gnatcatcher does not exist on or in the vicinity of the study area. Known breeding locations for gnatcatcher are limited and include the one breeding pair found along the eastern boundary of the site in 2014, in addition to two gnatcatcher occurrences (presumed to be breeding) north of the study area, on the north side of Escondido Creek and Harmony Grove Road, within the HGV open space. Additional, scattered occurrences are reported to the southeast and east of the site toward Lake Hodges and Escondido. The scattered gnatcatcher occurrences in the local area would indicate that the area does not support a critical,

self-sustaining population of gnatcatchers, and that gnatcatcher movement through the area is limited because there is not an abundance of habitat to support multiple breeding territories. Previous agricultural uses eliminated much of the coastal sage scrub in the local area and the upland habitat that remains is mostly chaparral and grassland. The Draft MSCP North County Plan *California Gnatcatcher Habitat Evaluation Model* ranks the habitat within the study area itself and further to the east as having no value to the gnatcatcher for nesting (County 2008b). This is consistent with the patchiness of scrub habitat inventoried during 2014 surveys, despite one gnatcatcher pair confirmed along the eastern boundary. The scrub also supports a prevalence of chaparral and grassland constituents due to its adjacency with these habitats, which have been established in the area for some time. The prevalence of chaparral and grassland constituents in the scrub reduces the quality of the habitat for breeding gnatcatchers, although it still provides habitat for dispersal and migration.

While the Project site itself does not function as a corridor, the eastern edge of the site likely contributes to north-south wildlife movement that occurs through the general area referred to as West Ridge, which would connect known coastal California gnatcatcher occurrences north of Escondido Creek to other known occurrences south and southeast of the site within the DDHP. There is an area of high value gnatcatcher habitat approximately 0.5 mile northeast of the site (County 2008b). The high value habitat area is an isolated island preserve designated as draft PAMA within HGV and Rincon MWD open space. The Project site is separated from this area by HGV development and local roadways, although a constrained and fragmented connection of scrub and chaparral habitat exists along a linear path to the general northeast, east, and southwest of the site.

A general assessment of off-site lands situated along the constrained linkage was conducted based on surveys and review of aerial imagery. The HGV and Rincon MWD island preserve represents the northern limit of the constrained linkage section that was assessed. The West Ridge area to the east of the site represents the approximate center of the linkage. Lands to the south within DDHP and further to the southeast toward Lake Hodges represent the southern limit of the linkage section.

The northern limit at the HGV and Rincon MWD island preserve (north of Harmony Grove Village Parkway) supports coastal sage scrub and coastal sage-chaparral on moderate to steep slopes, with evidence of previous disturbance. This is the area identified as “High Value” to gnatcatcher in the County Habitat Evaluation Model, although portions of the habitat appear to be disturbed and no gnatcatcher records are reported at this location. The southern tip of this area is characterized by severe slopes from previous mining activities as well as current Harmony Grove Village Parkway. Moving south from Harmony Grove Village Parkway, the connection of habitat is broken by HGV development. Low- and poor-flying birds, such as gnatcatcher, likely have two avenues of movement at this break point as they continue south toward Escondido Creek and the Escondido Creek Conservancy open space. They could continue directly south, along lands on the north and west side of Harmony Grove Road, or they could continue directly southeast, along lands on the south and east side of Harmony Grove Road.

Birds can move directly south of the HGV and Rincon MWD island preserve to this southern island preserve within HGV open space, but the path is interrupted by existing graded pads, road developments, and residential developments that range 400 feet to 1,000 feet in width along the

movement path. Once at the second HGV island preserve, the habitat is composed of coastal sage scrub and coastal sage-chaparral on moderate to steep slopes. This area is not identified as High Value gnatcatcher habitat in the Habitat Evaluation Model, although gnatcatcher records are reported at this location. Moving due south toward the Escondido Creek Conservancy open space, gnatcatchers must cross Harmony Grove Road, which averages approximately 30 feet in width, before entering the Escondido Creek riparian corridor and undeveloped scrub and chaparral within the Escondido Creek Conservancy open space. These areas are not identified as High Value habitat and no gnatcatcher records are reported at these locations. Alternatively, moving east and then south, This path is interrupted by existing roadway and abandoned industrial developments approximately 30 feet to 400 feet wide. Once across these developments, gnatcatchers can continue south and east within Escondido Creek riparian habitat or the adjacent scrub and chaparral within the Escondido Creek Conservancy open space.

Once at the Escondido Creek Conservancy open space, birds could continue south and southeast toward the West Ridge. This north-south trending movement avenue is characterized by scrub and chaparral on moderate slopes, with portions constrained by several narrow driveways and rural residences. The undeveloped areas are characterized by broken and intact stands of coastal sage scrub, coastal sage-chaparral, and mixed chaparral on moderate slopes. None of the areas are identified as high value gnatcatcher habitat and no gnatcatcher records are reported. The total width of the travel route, including the existing undeveloped habitat, driveways, and rural residences, ranges from approximately 1,500 feet to 2,500 feet across the general area east of the site. The scrub and chaparral along the eastern boundary of the site is situated along the westernmost edge of this travel route. As discussed above, the on-site coastal sage scrub in this area is considered to be of “Intermediate Value” due to it being less fragmented than other on-site scrub and due to the presence of a confirmed gnatcatcher breeding territory. Additional coastal sage scrub, coastal sage-chaparral, and mixed chaparral occur off site to the east toward the West Ridge and along the north-south constrained linkage. Properties along this travel route are either conserved within the Escondido Creek Conservancy open space, built-out to zoning designations with existing rural residences, or characterized by rugged terrain and steeper slopes, which present a significant constraint to future developments.

Once in the vicinity of the project site and areas east near the West Ridge, birds could continue to the general south, southeast, and southwest within a large and contiguous habitat block that includes the DDHP and EFRR. This represents the southern terminus of the constrained linkage. Most of the habitat is mixed chaparral with smaller pockets of coastal sage scrub and coastal sage-chaparral. None of the areas are identified as high value gnatcatcher habitat, although scattered gnatcatcher records are reported further south and southeast of the Project site.

In summary, gnatcatcher presence in the local area is limited to a few scattered known occurrences, including the breeding pair confirmed along the eastern boundary of the site in 2014 and two occurrences in the Harmony Grove open space. Overall habitat quality for gnatcatcher is low, as previous human activity eliminated much of the coastal sage scrub, and the upland habitat that remains is mostly chaparral and grassland. A direct, north-south connection of core habitat between DDHP and Escondido Creek does not exist through the Project site due to the large area of non-native grassland, which serves as an exposed break in the scrub and chaparral. Areas along the eastern boundary of the site could facilitate north-south movement to and from Escondido Creek, although the habitat is patchy and constrained by existing residential uses.

Areas along further to the east of the site are less constrained, where a direct connection of scrub and chaparral habitat occurs along West Ridge.

2.3.1.2 *Regulatory Setting*

Biological resources in the study area are subject to regulatory review by federal, State, and local agencies. Under CEQA, impacts associated with a proposed project or program are assessed with regard to significance criteria determined by the CEQA Lead Agency (in this case, the County) pursuant to CEQA Guidelines. Biological resources-related laws and regulations that apply include federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), CWA, CEQA, California Endangered Species Act (CESA), CFG Code, NCCP for coastal sage scrub, and County RPO (County 2011).

With respect to the proposed project, the USFWS is responsible for reviewing issues related to the coastal California gnatcatcher and least Bell's vireo pursuant to the FESA, migratory birds pursuant to the MBTA, Habitat Loss Permit (HLP), and regional conservation planning in light of the Draft MSCP North County Plan. The USACE is responsible for reviewing issues related to waters of the U.S. The RWQCB is responsible for reviewing issues related to waters of the State pursuant to the CWA. (The State Porter-Cologne Water Quality Control Act would not apply as there are no isolated waters of the State in the study area.) The CDFW is responsible for reviewing issues related to vegetated and unvegetated streambeds pursuant CFG Code, nesting birds and raptors pursuant to CFG Code, HLP, and regional conservation planning in light of the Draft MSCP North County Plan.

The County is the lead agency for the CEQA environmental review process in accordance with State law and local ordinances, and is responsible for reviewing project issues per the Guidelines for Determining Significance for Biological Resources (County 2010) and the County RPO (County 2011). The County is also responsible for reviewing the proposed Project with respect to the HLP, conservation planning in light of the Draft MSCP North County Plan, and consistency with biological goals and policies of the Elfin Forest – Harmony Grove Community Plan.

Federal

Federal Endangered Species Act

Administered by the USFWS, the FESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a 'take' under the ESA. Section 9(a) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." 'Harm' and 'harass' are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitats so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the FESA, all federal agencies must consult with the

USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat. There is no designated critical habitat in the study area. The nearest critical habitat is for the coastal California gnatcatcher, approximately 1.3 miles to the southwest near Elfin Forest.

Sections 7 and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. In this case, take can be authorized via a letter of biological opinion issued by the USFWS for non-marine-related listed species issues. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered species' use of a site and impacts to USACE jurisdictional areas. Section 10(a) allows issuance of permits for incidental take of endangered or threatened species with preparation of a Habitat Conservation Plan (HCP). The term "incidental" applies if the taking of a listed species is incidental to, rather than the purpose of, an otherwise lawful activity. An HCP demonstrating how the taking would be minimized and how steps taken would ensure the species' survival must be submitted for issuance of Section 10(a) permits.

Migratory Bird Treaty Act

All migratory bird species that are native to the U.S. or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 15 to August 31). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

Clean Water Act and Rivers and Harbors Act

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the CWA. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling WUS is overseen by the USACE under Section 404 of the CWA. Most development projects are permitted using Individual Permit or Nationwide Permit instruments. CWA Section 404 permits require Water Quality Certification by the RWQCB pursuant to CWA Section 401.

State

California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (or impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Endangered Species Act

The CESA established that it is State policy to conserve, protect, restore, and enhance State endangered species and their habitats. Under State law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for (only) State-listed threatened and endangered species if specific criteria are met.

Native Plant Protection Act

Sections 1900–1913 of the CFG Code (Native Plant Protection Act; NPPA) direct the CDFW to carry out the State Legislature's intent to "…preserve, protect and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Section 1600 requires an SAA for any activity that would alter the flow, change or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require an SAA include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities, and CDFW will issue an SAA with any necessary mitigation to ensure protection of the State's fish and wildlife resources.

Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds would not be disturbed, subject to approval by CDFW and/or USFWS.

Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning (NCCP) program is a cooperative effort to protect habitats and species. It began under the State's NCCP Act of 1991, legislation broader in its orientation and objectives than the CESA or FESA. These laws are designed to identify and protect individual species that have already declined significantly in number. The NCCP Act of

1991 and the associated Southern California Coastal Sage Scrub NCCP Process Guidelines (1993), Southern California Coastal Sage Scrub NCCP Conservation Guidelines (1993), and NCCP General Process Guidelines (1998) have been superseded by the NCCP Act of 2003.

The primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process.

This voluntary program allows the State to enter into planning agreements with landowners, local governments, and other stakeholders to prepare plans that identify the most important areas for a threatened or endangered species, and the areas that may be less important. These NCCP plans may become the basis for a State permit to take threatened and endangered species in exchange for conserving their habitat. The CDFW and USFWS worked to combine the NCCP program with the federal HCP process to provide take permits for State and federal listed species. Under the NCCP, local governments, such as the County, can take the lead in developing these NCCP plans and become the recipients of State and federal take permits. The County does not yet have an NCCP plan adopted for North County; the MSCP North County Plan in still in draft form and has been since 2009 (County 2009).

Local

Habitat Loss Permit Ordinance

The HLP Ordinance was adopted in March of 1994 (County 1994) in response to both the listing of the coastal California gnatcatcher as a federal threatened species and the adoption of the NCCP Act by the State. Pursuant to the Special 4(d) Rule under the FESA, the County is authorized to issue “take permits” for the coastal California gnatcatcher (in the form of HLPs) in lieu of Section 7 or 10(a) permits typically required from the USFWS. Although issued by the County, the USFWS and CDFW must concur with the issuance of an HLP for it to become valid as take authorization under the FESA. The HLP Ordinance states that projects must obtain an HLP prior to the issuance of a grading permit, clearing permit, or improvement plan if a project will directly or indirectly impact any of several coastal sage scrub habitat types, regardless of whether it is currently occupied by the coastal California gnatcatcher. An HLP is not required for projects within the boundaries of the MSCP that have an adopted subarea plan since take authorization is conveyed to those projects through compliance with the MSCP. HLPs are also not required for projects that have separately obtained Section 7 or 10(a) permits for take of the coastal California gnatcatcher.

Approval of an HLP is based on findings made pursuant to the HLP Ordinance. Findings need to demonstrate that a project’s loss of coastal sage scrub would not exceed the County’s five percent interim allowable loss limit. They also have to demonstrate that the habitat loss would not preclude connectivity between areas of high habitat values or preclude or prevent the preparation of a subregional NCCP plan. Additionally, the findings must show that the habitat loss has been minimized and mitigated to the maximum extent practicable in accordance with Section 4.3 of the Southern California Coastal Sage Scrub NCCP Process Guidelines, and that the habitat loss would not appreciably reduce the likelihood of survival and recovery of listed

species in the wild. Finally, the habitat loss must be incidental to otherwise lawful activities. An HLP application must be filed with the County if the Draft MSCP North County Plan has not been adopted at the time of environmental review of the proposed Project since impacts to coastal sage scrub and the coastal California gnatcatcher would occur. An HLP requires concurrence from USFWS and CDFW.

Resource Protection Ordinance

The County regulates natural resources (among other resources) as sensitive biological resources via the RPO (County 2011), the regulations of which cover wetlands, wetland buffers, sensitive plant and animal species, sensitive vegetation communities/habitat types, and habitats containing sensitive animals or plants.

The attributes of RPO wetlands are defined in Section 2.3.1.1 of this subchapter, under Jurisdictional Wetlands/Waters, above. According to the RPO, the following are not considered RPO wetlands:

- Lands which have attribute(s) which appear to meet the ordinance, but are solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of PDS determines that they:
    - Have negligible biological function or value as wetlands;
    - Are small and geographically isolated from other wetland systems;
    - Are not vernal pools; and
    - Do not have substantial or locally important populations of wetland dependent sensitive species.

- Lands that have been degraded by past legal land disturbance activities to the point that they meet the following criteria as determined by the Director of PDS:
    - Have negligible biological function or value as wetlands even if restored to the extent feasible; and,
    - Do not have substantial or locally important populations of wetland dependent sensitive species.

The study area contains 1.13 acres of RPO wetlands, all of which are off site in Escondido Creek and associated with the bridge footprint study area (Table 2.3-3 and Figure 2.3-4). The off-site RPO wetlands consist of mule fat scrub, southern willow riparian forest, and coast live oak woodland that support wetland conditions.

Sensitive Habitat Lands are defined by the RPO as:

- Land which supports unique vegetation communities, or the habitats of rare or endangered species or sub-species of animals or plants as defined by Section 15380 of the State CEQA Guidelines (14 Cal. Admin. Code Section 15000 *et seq*.), including the area which is necessary to support a viable population of any of the above species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning wildlife corridor.

> "Unique vegetation community" refers to associations of plant species which are rare or substantially depleted. These may contain rare or endangered species, but other species may be included because they are unusual or limited due to a number of factors, for example: (a) they are only found in the San Diego region; (b) they are a local representative of a species or association of species not generally found in San Diego County; or (c) they are outstanding examples of the community type as identified by the CDFW listing of community associations.

Sensitive Habitat Lands in the study area include lands supporting the core on-site population of wart-stemmed ceanothus in the southern portion of the study area where the southern mixed chaparral community supports an estimated 20,000 wart-stemmed ceanothus individuals. Also present in this area are summer holly (20 to 30 individuals), San Diego sagewort (4 individuals), and ashy spike-moss (4 concentrations). These areas are "unique" in that they support rare plant species and they are considered sensitive by CDFW (2010). CDFW's rarity ranking follows the NatureServe's Heritage Methodology (NatureServe 2009) in which communities are given a G (global) and S (State) rank based on their degree of imperilment (as measured by rarity, trends, and threats). Communities with a Rarity Ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) are considered sensitive by the CDFW. Southern mixed chaparral is ranked as G3 and S3. G3 is vulnerable and at moderate risk of extinction or elimination due to a restricted range, recent and widespread declines, or other factors. S3 is vulnerable due to a restricted range, recent and widespread declines, or other factors making it vulnerable to extirpation.

The remaining portions do not represent areas which are necessary to support a viable population of rare and endangered species in perpetuity, or which are critical to the proper functioning of a balanced natural ecosystem or which serve as a functioning wildlife corridor. The remaining portions of the study area are not unique and are not ranked by the CDFW (2010) as being sensitive or, for coast live oak woodland, are ranked G5 (secure) and S4 (apparently secure), and are therefore not Sensitive Habitat Lands.

2.3.2 Analysis of Project Effects and Determination as to Significance

2.3.2.1 *Special Status Species*

Guidelines for the Determination of Significance

A significant impact to special status species would occur if the Proposed Project would:

1. Impact one or more individuals of a species listed as federally or state endangered or threatened.

2. Impact the survival of a local population of any County Group A or B plant species, a County Group 1 animal species, or a species listed as a state Species of Special Concern.

3. Impact the regional long-term survival of a County Group C or D plant species or a County Group 2 animal species.

4. Impact arroyo toad aestivation, foraging or breeding habitat.

5. Impact golden eagle habitat, foraging or nesting habitat.

6. Result in a loss of functional foraging habitat for raptors.

7. Impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species.

8. Cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term.

9. Impact occupied burrowing owl habitat.

10. Impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

11. Impact occupied Hermes copper butterfly habitat.

12. Impact nesting success of the following sensitive bird species through grading, clearing, fire fuel modification and/or other noise generating activities such as construction:

    - Coastal cactus wren
    - Coastal California gnatcatcher
    - Least Bell's vireo
    - Southwestern willow flycatcher
    - Tree-nesting raptors
    - Ground-nesting raptors
    - Golden eagle
    - Light-footed clapper rail

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

The Project would result in significant impacts under the above guidelines for the following reasons:

Federally or State Endangered or Threatened Species (Guideline 1)

Coastal California Gnatcatcher

The Project would impact a portion of the Diegan coastal sage scrub on the Project site (see Table 2.3-4, *Impacts to Vegetation Communities/Habitat Types* and Figure 2.3-5, *Proposed Project Vegetation and Sensitive Resources/Impacts*). The impacted coastal sage scrub includes both Low and Intermediate Value habitat according to the NCCP Conservation Guidelines and Logic Flow Chart (CDFW 1993a, 1993b). A stand of Intermediate Value habitat to be impacted in the eastern portion of the site was determined to support a coastal California gnatcatcher breeding pair in 2014. Additional Intermediate Value stands of sage scrub in the northern, central, and eastern portions of the site also function to facilitate gnatcatcher dispersal and north-south movement through the local area. No gnatcatchers were observed using the smaller, fragmented and Low Value stands in the southern-central and western portions of the site. The potential for gnatcatchers to breed at these locations is considered low based on small patch size of suitable habitat, lack of constituent vegetative elements, and the fact no additional breeding pairs were observed during 2014 protocol surveys. Gnatcatchers could breed at off-site locations within 300 feet of the Project site. In addition, gnatcatchers would be expected to use other scrub- and chaparral-vegetated portions of the site for foraging, dispersal, and migration activities. Nonetheless, although located within a highly disturbed area, the loss of this known nesting site and the potential for displacement related to loss of foraging area and dispersal habitat, result in potentially significant impacts.

Of the 10.4 acres of coastal sage scrub that would be impacted, approximately 4.1 acres (39 percent) is considered Low Value habitat, made of up of the smaller, fragmented patches in the southern and western portions of the Project impact area where gnatcatchers were not detected during surveys, but which could be used for foraging, migration and dispersal. The remaining 6.3 acres of Intermediate Value coastal sage scrub in the eastern portion of the site was confirmed to be used for breeding by a single pair of gnatcatcher and facilitates dispersal and movement functions for the species. The largest, intact, stand of impacted Intermediate Value habitat occurs immediately adjacent to one of the rural residences to the east of the site. Considering the 6.3-acre size and overall quality of the Intermediate Value scrub, the potential for it to support additional gnatcatcher breeding territories beyond the single territory confirmed is considered low. Altogether, the impacted sage scrub on site has a limited carrying capacity and ceiling for breeding gnatcatchers. Impacts to Low and Intermediate Value stands on site would not reduce the likelihood of survival and recovery of the species.

As mentioned above, the coastal sage scrub on site is expected to contribute to dispersal and migration for the species, but it is not the only habitat in the local area expected to provide those functions. Additional scrub and chaparral occur in the local area for gnatcatchers and other wildlife to disperse and migrate through. As described in Section 2.3.1.1, off-site coastal sage scrub in the local area is composed of fragmented stands and islands of habitat. These off-site stands and islands are situated amongst developed land and undeveloped land characterized by chaparral and riparian habitat. Based on survey results and known records for the off-site areas, the fragmented stands and islands of off-site coastal sage scrub do not support high numbers of gnatcatchers or a significant population relative to other core habitat in the Harmony Grove and Elfin Forest area. There are no large blocks of high value coastal sage scrub in the local area for

which the on-site coastal sage scrub is vital to provide a connection. Also as described above, movement functions along the eastern edge of the site would be conserved within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. Therefore, Project impacts to coastal sage scrub used for dispersal and migration would also not reduce the likelihood of survival and recovery of the species.

Mitigation for impacts to coastal sage scrub, including both the 4.1 acres of Low Value and 6.3 acres of Intermediate Value scrub, would be provided at a 2:1 ratio and with habitat that provides equivalent or superior function and long-term conservation value compared to that which would be impacted. As a regulatory requirement, the Project will obtain an HLP from the County, which requires concurrence from the USFWS and CDFW prior to issuance. The HLP will incorporate avoidance, minimization, and compensatory mitigation measures addressing the loss of coastal sage scrub and effects on gnatcatcher, and will include detailed information about the specific type(s) and location(s) for the mitigation. Avoidance and minimization measures are proposed to ensure that Project construction does not result in adverse direct or indirect impacts on any gnatcatcher individuals. Compensatory mitigation measures are also proposed to offset the loss of the gnatcatcher pair and coastal sage scrub habitat within areas identified as PAMA under the Draft MSCP North County Plan. Approximately 1.8 acres would be restored or created within temporary impact areas along the southern boundary. These 1.8 acres would be preserved, along with an additional 0.5 acre, for a total of 2.3 acres of preserved coastal sage scrub within BOS for the Project (Appendix E Figure 17 and EIR Figure 2.3-5). In addition to the on-site restoration, creation, and preservation of 2.3 acres, the Project proposes off-site preservation of a minimum of 18.5 acres of Intermediate or High Value coastal sage scrub, or other like-functioning habitat as approved by the County and Wildlife Agencies, through one or a combination of the following: (1) the recordation of a BOS easement, preparation of an RMP approved by the County and Wildlife Agencies, and long-term management by a qualified entity approved by the County and Wildlife Agencies; and/or (2) purchase of occupied coastal sage scrub credits from a conservation bank as approved by the County and Wildlife Agencies. To the extent available, off-site preservation would occur locally and within land designated as PAMA in the Draft North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion. Regardless of ultimate site selection, the mitigation must be deemed acceptable by the County and Wildlife Agencies.

The Project as a whole would therefore result in a net increase of 18.5 acres or 70 percent of coastal sage scrub preservation compared to the 10.9 acres that currently exist on site, portions of which are fragmented and of Low Value. Nonetheless, impacts to coastal California gnatcatcher and its habitat would occur. **Impacts to Diegan coastal sage scrub, a sensitive habitat type, would be considered significant (Impact BI-1a). Impacts to gnatcatcher individuals; occupied habitat; and foraging, migration and dispersal habitat are also identified as significant. (Impact BI-1b)**

Least Bell's Vireo

In addition, least Bell's vireo was observed in Escondido Creek, primarily using habitat immediately east of Country Club Drive. The habitat is moderately developed in the understory and marginal for breeding in its current state. No vireo breeding sign or activity was observed in the survey area during any of the 2014 surveys, and none was suspected. This is also consistent

with HELIX's observations within Escondido Creek during construction and restoration monitoring for HGV. The site would not be expected to support a significant population of vireos. Vireos are known to occur within other reaches of Escondido Creek, including habitat located further upstream and downstream of the site. Better quality habitat occurs and vireos could breed at off-site locations within 500 feet of the Project direct impact areas. Nonetheless, **because a potential exists for use of the area by a nesting pair and for foraging impacts to breeding vireo and suitable habitat are identified as potentially significant. (Impact BI-1c)**

State Species of Concern, County Group A and B Plant Species, and County Group 1 Animal Species (Guideline 2)

Project impacts to County Group 1 species are addressed above within County Guideline 1. The Project would impact seven individuals of summer holly, a County List A plant, and 1,963 wart-stemmed ceanothus, a County List B plant, not including the potential removal of wart-stemmed ceanothus within the 20-foot wide trail easement. The final design of the trail improvements will avoid removing wart-stemmed ceanothus to the maximum extent practicable, in consultation with the County. **Impacts to summer holly and wart-stemmed ceanothus are identified as potentially significant**. **(Impact BI-2a)**

In addition, a single red-shouldered hawk was observed perching in a tree near Escondido Creek. This species could nest at off-site locations within 500 feet of Project impact areas. It also may forage over the non-native grassland on site, but the site does not provide the only foraging habitat in the local area for the species. Because this species could nest within 500 feet of the Project (considered to be within a distance where construction activities could adversely affect the species) and the Project would result in the loss of potential foraging habitat for this and other raptor species, **impacts to nesting red-shouldered hawks and non-native grassland foraging habitat are identified as potentially significant. (Impact BI-2b)**

Last, the Project would result in the loss of potential nesting and foraging habitat for yellow-breasted chat, which is designated as State species of special concern and County Group 1 species. Based on the number of observations and suitability of the habitat, this species is considered to nest in the reach of Escondido Creek and adjacent riparian woodland that could be impacted by the Project. **Impacts to nesting yellow-breasted chat are, therefore, identified as potentially significant. (Impact BI-2c)**

County Group C and D Plant Species and County Group 2 Animal Species (Guideline 3)

The Project could impact barn owl, which is a County Group 2 species that has the potential to use the Project site and areas within 500 feet for roosting and/or nesting. Barn owl could use the site for foraging, but it does not provide the only available foraging habitat in the local area for the species. **Impacts to nesting barn owl are identified as potentially significant. (Impact BI-3a)**

Southwestern spiny rush and ashy spike-moss are both County List D plant species. Given the low number of individuals to be impacted (one spiny rush and four small concentrations of spike-moss), and that these two species are relatively common in the region, Project impacts

would not impact their local long-term survival. **Impacts to Southwestern spiny rush and ashy spike moss are identified as less than significant**.

Green heron and great blue heron are both County Group 2 animals that have the potential to temporarily forage within Escondido Creek. These species were observed only once during the 2014 surveys, which suggest that the site is not an essential foraging area. The site would not be expected to support a rookery site or significant population of these two herons. Additional habitat occurs throughout Escondido Creek and other aquatic habitats in the region. Impacts at Escondido Creek for replacement of the existing low-water crossing and construction of a bridge would be largely temporary, with foraging habitat continuing to exist under post-Project conditions. Therefore, **the Project would not affect the long-term survival of these two herons and impacts are considered less than significant.**

In addition, the Project would result in the loss of potential nesting and foraging habitat for yellow warbler, which is designated a State species of special concern and County Group 2 species. Based on the number of times observed and suitability of the habitat, this species is considered to nest in the reach of Escondido Creek and adjacent riparian woodland that could be impacted by the Project. **Impacts to nesting yellow warbler are therefore identified as potentially significant. (Impact BI-3b)**

Arroyo Toad (Guideline 4)

The Project reach of Escondido Creek and the unnamed ephemeral tributaries on site do not provide suitable habitat for arroyo toad. The species is believed to have been extirpated from the local area. **Impacts to the arroyo toad would be less than significant.**

Golden Eagle (Guideline 5)

The nearest known historic golden eagle nest is approximately 1.5 miles to the south of the Project site. There have been no recent sightings of territorial eagles at this nest location. The Project site does not contain nesting habitat and it is not within any known golden eagle territory. While there is potential eagle foraging habitat (open non-native grassland) on site, the surrounding habitat fragmentation and the distance from known eagle territories would indicate that the site has low value for golden eagle. The surrounding area is primarily urbanized and new nesting in the vicinity is unlikely. As of July 2014, no activity at a previous nest in the Del Dios area was noted. Therefore, **no impacts would occur to golden eagle or its habitat.**

Raptor Foraging Habitat (Guideline 6)

The Project site supports foraging habitat for raptors known to the local area, including common species such as red-tailed hawk, and sensitive species such as barn owl and white-tailed kite. The Project would result in the loss of sparse scrub and grassland habitat that provides foraging habitat for these raptors. **Impacts to raptor foraging habitat are significant. (Impact BI-3c)**

Core Wildlife Areas (Guideline 7)

The Project site is contiguous with the DDHP and additional open space to the general south and east. This general area is identified as a core area in North County. As such, the site is part of a

core wildlife area of 500 acres or more of wildlife habitat; however, only certain habitat types on the site contribute to the target functions and viability of the core area. The chaparral and scrub on and in the immediate vicinity of the site provide functioning habitat associated with the core area. This is because it supports sensitive plant species and provides habitat for breeding, foraging, dispersal and migration for birds and large mammals. The non-native grassland provides limited cover and does not support high functioning breeding habitat, but is used for foraging by wildlife species in the local area. The grassland-chaparral interface and chaparral edge areas further function to facilitate dispersal and migration for large mammals.

The Project would impact a total of 82.5 acres, including temporary and permanent impacts, more than half of which is non-native grassland. The Project would contribute 34.8 acres of preserved contiguous habitat to this core area through the establishment of proposed permanent on-site BOS. Impacts would occur to chaparral and scrub habitat, but the Project's BOS would conserve and restore these habitat types. The existing grassland-chaparral interface and chaparral edge areas would be impacted, but the Project would include interface and edge areas within thinned native vegetation fuel modification zones and along the boundaries of BOS. The BOS supports the following resources and functions: stands of coast live oak woodland, coastal sage-chaparral, Diegan coastal sage scrub, southern mixed chaparral; a major population of 21,150 wart-stemmed ceanothus; other rare plants, including San Diego sagewort, summer holly, and ashy spike-moss; and functioning foraging, dispersal and migration habitat for several special status animals. It provides adequate space and resources, and functions to facilitate bird and mammal movement through the core area, including target species for conservation in the region, such as gnatcatcher and mule deer. Therefore, **the Project would not impact the viability of a core wildlife area and the species that use it**.

Indirect Impacts/Edge Effects (Guideline 8)

The Project site abuts existing preserve areas and large blocks of core habitat to the general south and east, including DDHP to the immediate south. The Project proposes to place on-site habitat into BOS (i.e., coastal sage scrub, chaparral, and oak woodland) that connects with off-site core habitat of the same or similar function and type. Even where there is not direct removal of habitat, however, indirect impacts can result. These are secondary effects of the direct impacts, which may cause of degradation of a biological resource over time. These are called "edge effects"; some are temporary during construction and others are part of the operation of the project during the life of the residential development. Edge effects can result from increased noise, unauthorized trampling of habitat, introduction of pets and pest plants to open space areas, and effects of irrigation and lighting. Project implementation would potentially cause indirect impacts from construction noise, human access, domestic animals, exotic plant species, and lighting.

Increases in human activity in the area could result in degradation of open space habitat and associated indirect impacts on sensitive species through the creation of unauthorized trails and removal of vegetation. In addition, illegal dumping of lawn and garden clippings, trash, and other refuse could occur. Resulting habitat degradation and effects on sensitive species in open space areas could result in a significant impact. The Project BOS would include dedication of a permanent BOS easement, which would be buffered from Project developments by a minimum 100-foot Limited Building Zone easement. Permanent fencing would be installed at the

development edge and Project BOS, and signs precluding access would be posted. Further, the Proposed Project would result in implementation of an RMP, which includes active management of the BOS in perpetuity.

The Proposed Project is residential in nature, so domestic predators (e.g., dogs and cats) may be introduced to the surrounding habitat. Although such introductions have potential to harm native wildlife species, the site is adjacent to existing rural residential development and is already subject to some level of disturbance and predation by domestic animals. In addition, the aforementioned permanent fencing that would be installed around Project BOS would preclude access by domestic predators.

Non-native plants can colonize areas disturbed by construction/development and could potentially spread into adjacent native habitat. This could result in displacement of native vegetation (reducing native species diversity), potentially increasing flammability and fire frequency, change ground and surface water levels, and potentially adversely affect native wildlife dependent on native plant species. To avoid potentially significant impacts from plants installed as part of the Project, only non-invasive plant species would be included in the landscape plan for the site closest to the BOS and pepper trees would be restricted to sections of Country Club Drive more than 50 feet from native habitat and to the Center House landscaping. Other than the restricted use of California pepper, species listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council [Cal-IPC 2007]) would not be used.

Night lighting that extends from a developed area onto adjacent wildlife habitat can discourage nocturnal wildlife in habitat and can provide nocturnal predators with an unnatural advantage over their prey. All Project lighting would be required to adhere to Division 9 of the LPC. Lighting within the proposed Project footprint adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded and directed away from these areas.

Given the above considerations, **long-term impacts to sensitive species resulting from indirect edge effects would be less than significant**. Required installation of fencing and signage around the BOS, dedication of a BOS easement, protection of the BOS by a limited building zone easement, and implementation of the RMP for the Proposed Project, would further minimize potential edge effects over the long-term. Potential indirect impacts from construction noise are discussed under Guideline 12.

Occupied Burrowing Owl Habitat (Guideline 9)

The Project site does not support occupied burrowing owl habitat, as demonstrated by the 2014 protocol-level survey negative findings. **The Project would have no impact on burrowing owl.**

Occupied Coastal Cactus Wren Habitat (Guideline 10)

This species was not observed or otherwise detected during 2014 biological surveys. Suitable nesting habitat is absent from the site. **The Project would have no impact on cactus wren.**

Occupied Hermes Copper Butterfly Habitat (Guideline 11)

Although the Project site supports a limited amount of potential Hermes copper butterfly habitat (spiny redberry within 15 feet of buckwheat), the Project site does not support Hermes copper butterfly, as demonstrated by the 2014 protocol-level survey negative findings. Unoccupied habitat would be impacted by the Project; however, the habitat is not likely to become occupied in the future due to the site's isolation from nearby occurrences. **The Project would have no impact on occupied Hermes copper habitat.**

Nesting Success (Guideline 12)

Project construction could impact the nesting success of coastal California gnatcatcher, least Bell's vireo, and tree-nesting raptors, all of which have the potential to nest on and/or in the immediate vicinity of construction impact areas. Noise from such sources as clearing and grading could result in an impact to wildlife. Noise-related impacts would be considered significant if sensitive species (such as coastal California gnatcatcher, least Bell's vireo, and raptors) were displaced from their nests and failed to breed. Raptors or other sensitive bird species nesting within any area impacted by noise exceeding 60 decibels (dB) or ambient could be significantly impacted. **If least Bell's vireo or tree-nesting raptors are nesting within 500 feet of the impact area, or coastal California gnatcatchers are nesting within 300 feet of the impact area, effects resulting from construction noise would be potentially significant. (Impact BI-4)**

2.3.2.2 *Riparian Habitat and Sensitive Natural Communities*

Guidelines for the Determination of Significance

A significant impact to riparian habitat or other sensitive natural communities would occur if:

13. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as identified in Table 5 in the County Guidelines for Determining Significance – Biological Resources, excluding those without a mitigation ratio) on or off the Project site.

14. Any of the following would occur to or within jurisdictional wetlands and/or riparian habitats as defined by USACE, CDFW, and County: removal of vegetation; grading; obstruction, or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

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

16. The Project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term.

17. The Project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

Vegetation Communities/Habitats (Guideline 13)

Off-site impacts on sensitive wetland habitat types are anticipated to include less than 0.01 acre of mule fat scrub and 0.71 acre of southern willow riparian forest as a result of replacing the existing low-water crossing with a bridge over Escondido Creek. No other components of the Project would impact sensitive wetland habitat types.

The Project development has been designed to avoid and setback at distances greater than 200 feet from this habitat; however, improvements to the existing low-water crossing for Country Club Drive over Escondido Creek would result in these associated impacts. The proposed improvements would include construction of a new off-site bridge that would span the flood limits of the Creek. The impacts would be primarily temporary for equipment access, residential access, and staging during bridge construction. Permanent impacts are expected to be limited to bridge abutments, footings, bank stabilization and fuel modification requirements. These impacts would be necessary to remove the existing low-water crossing, construct the new span bridge, stabilize the channel embankment, and restore the riverine hydrology of the reach. Wildlife movement along Escondido Creek would be improved by the proposed clear span bridge, which would provide much more space for water, aquatic and terrestrial animals at the crossing than the current at-grade crossing and culverts. The bridge would also reduce the potential for wildlife using the crossing to be harmed by vehicles. Water quality would be improved since pollution would not wash directly into the creek. Replacement of the low-water crossing could be accomplished through replacement in-place with a wider low-water crossing or with a bridge. Replacement in-place with a wider crossing would result in additional permanent loss of habitat and would not improve water quality, hydrology, or wildlife movement at the crossing. The bridge span represents the least environmentally damaging alternative to crossing the Creek and impacts to wetland are necessary and unavoidable**. Impacts to off-site sensitive wetland habitat types, mule fat scrub and southern willow riparian forest, would be significant. (Impact BI-5a)**

Impacts on sensitive uplands that would require compensatory mitigation include temporary and permanent impacts to 10.4 acres of Diegan coastal sage scrub (4.1 acres of Low Value and 6.3 acres of Intermediate Value), 4.5 acres of coastal sage-chaparral transition, 15.6 acres of southern mixed chaparral, 44.2 acres of non-native grassland, and 0.2 acre of coast live oak woodland. An approximately 1.8-acre area within the Project impact area would be temporary in

nature as it would be subject to Diegan coastal sage scrub restoration and creation. An effort has been made in the design to minimize impacts to sensitive upland habitat and direct development into the least sensitive areas. Project development has been sited in immediate proximity to the larger HGV development. It has also been consolidated to reduce footprint and minimize edge effects. Most importantly, the Project proposes 34.8 acres of BOS. This open space supports the following resources and functions, following restoration: stands of coast live oak woodland (0.8 acre), Diegan coastal sage scrub (2.3 acres, including the 1.8-acre restoration area), southern mixed chaparral (31.1 acres), and non-native grassland (0.2 acre); a major population of 21,150 wart-stemmed ceanothus; other rare plants, including San Diego sagewort, summer holly, and ashy spike-moss; and functioning foraging, dispersal and migration habitat for several special status animals. It provides adequate space and resources, and functions to facilitate bird and mammal movement through the core area, including target species for conservation in the region, such as gnatcatcher and mule deer. Though the on-site BOS would reduce the impact on sensitive upland habitat, **because the named habitats would be temporarily or permanently impacted, impacts would be significant. (Impacts BI-5b through 5f)**

Jurisdictional Wetlands/Waters (Guideline 14)

As addressed under County Guideline 13, Project-related construction could result in off-site impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern willow riparian forest associated with Escondido Creek (see Table 2.3-5, *Impacts to Jurisdictional Waters and Wetlands*).

The Project also would result in on-site impacts to 0.02 acre of ephemeral streambed, in addition to 0.04 acre of coast live oak woodland associated with the ephemeral streambed. Altogether, the Project would result in the following: 0.31 acre impacts to wetland waters of the U.S./State and 0.03 acre impacts to non-wetland WUS/State subject to USACE and RWQCB jurisdiction; 0.77 acre of vegetated streambed and 0.04 acre of unvegetated streambed subject to CDFW jurisdiction; and, 0.72 acre of RPO wetland subject to County jurisdiction. **Impacts would be considered significant. (Impacts BI-6a through 6c)**

Groundwater table (Guideline 15)

No groundwater withdrawals or activities that could result in lowering of the groundwater table are proposed. **No significant impact to the groundwater table would occur.**

Indirect Impacts (Guideline 16)

The Project would not result in indirect impacts from the spread of non-native plant species during construction. Non-native species are already prevalent throughout the Project site. As a design feature to avoid potential significant impacts from Project landscaping, only non-invasive plant species have been included in the landscape plan for the site (species not listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council [Cal-IPC; 2006]) for areas adjacent to BOS or within 50 feet of Escondido Creek. **Indirect impacts to sensitive habitat would be less than significant.**

Wetland Buffer (Guideline 17)

The Project provides minimum 100-foot buffers around wetlands and 100-foot limited building zones further protecting resources on and in the immediate vicinity of the BOS. Temporary encroachment into the buffer around Escondido Creek is required during construction for the anticipated removal of the existing low-water crossing, construction of the new span bridge, stabilization of the channel embankment, maintenance of residential access during construction, and restoration of riparian habitat and riverine hydrology within temporary impact areas. Construction activities within the buffer would be limited to the existing disturbed and developed areas in and around Country Club Drive. Temporary impacts within buffer areas would be restored to pre-project or superior conditions, subject to fuel modification requirements. **Impacts from wetland buffers would be less than significant.**

2.3.2.3 *Federal Wetlands*

Guideline for the Determination of Significance

A significant impact to federal wetlands would occur if the Proposed Project would:

18. 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.

Guideline Source

This guideline is based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

As previously stated, the Project would result in unavoidable impacts to 0.31 acre of wetland WUS subject to USACE regulatory jurisdiction pursuant to Section 404 of the CWA. The impacts would be temporary for resident access/egress, equipment maneuvering, and staging during bridge construction. Permanent impacts would be limited to bridge abutments, footings, and bank stabilization. The impacts would be necessary to remove the existing low-water crossing, construct the new span bridge, stabilize the channel embankment, and restore the riverine hydrology of the reach, etc. The proposed improvements would include construction of a new bridge that would span the flood limits of the Creek and allow for safe passage on Country Club Drive. The bridge span represents the least environmentally damaging alternative to crossing the Creek. Also, the health of the creek and hydrological function would be anticipated to improve post-bridge construction. As the Project would still result in impacts to federally protected wetlands, **impacts to wetlands would be significant. (Impact BI-7)**

2.3.2.4 *Wildlife Movement and Nursery Sites*

Guidelines for the Determination of Significance

A significant impact to wildlife movement or nursery sites would occur if the Proposed Project would:

19. Impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

20. Substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

21. Create artificial wildlife corridors that do not follow natural movement patterns.

22. Increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

23. Not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

24. Not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkages.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

Wildlife Access (Guideline 19)

The Project could impede wildlife access to on- and off-site areas that may be used for foraging, breeding, or obtaining water; however, as evidenced by biological surveys and an assessment of potential wildlife movement functions in the local area, the areas do not support critical populations of animal species and the Project would not impede access to areas necessary for reproduction. Impacts would be less than significant.

The study area occurs within lands identified as PAMA and in the vicinity of core area, outside of any linkage area. With respect to wildlife movement in the region, conservation targets generally include conserving a contiguous riparian corridor in Escondido Creek, and conserving a large core area of upland habitat around DDHP and EFRR. Related to these are conserving regional movement within core area associated with DDHP and EFRR, and conserving access to the Escondido Creek corridor from the core area.

Access along the reach of Escondido Creek that occurs at the Country Club Drive crossing would be temporarily interrupted during construction; however, there would be adequate space to move around work areas to the north across Harmony Grove Road and into the HGV open space areas. Wildlife also would have unobstructed access around work areas by moving through rural/estate lots to the east of the Project site, through the open space to be conserved in the southern portions of the site, and finally to the downstream reach of Escondido Creek further to the west of the site. Replacement of the existing Country Club Drive low-water crossing with a new bridge would have a beneficial effect on wildlife access and movement within the reach of Escondido Creek. The bridge is anticipated to be approximately 250 feet long, supported on abutments at its northern and southern extents, with two intermediate pier supports. Design would accommodate a minimum openness ratio of 0.75 to allow species such as mule deer and coyote free and clear access. The piers would be spaced at least 100 feet apart to facilitate movement and access to key resources. The bridge would be tall enough to accommodate wildlife crossings within the riparian zone and would also accommodate 100-year flood flows. The design would further widen the corridor at the located where it is currently pinched and constrained from the low-water crossing. The post-Project bridge condition is anticipated to be superior for wildlife access compared to the low-water crossing barrier which currently exists.

There would be adequate space for birds to move around the site to access core habitat within DDHP and EFRR, and to and from Escondido Creek and HGV open space. Birds would be able to move unobstructed through the Project's open space (both BOS and other open space areas proposed by the Project) and the undeveloped lands around the site. Although a single pair of gnatcatchers was confirmed on site during 2014 surveys, the habitat is patchy and fragmented. Its preservation is not vital to support a viable population of gnatcatchers in perpetuity, especially considering the abundance of core habitat located further to the southeast around Lake Hodges, the south around Del Dios and Rancho Cielo, and the west and southwest in the Elfin Forest and Rancho La Costa area. It is noted that the County's *Habitat Evaluation* shows the Project site ranked as having no value to the species for nesting (County 2008b). The closest known gnatcatcher occurrences to the site are within the HGV open space, approximately 600 feet northeast of the site across Harmony Grove Road, where HELIX confirmed two gnatcatchers during construction monitoring efforts in 2014. With two gnatcatchers present and limited available habitat, the HGV open space does not support a critical population of gnatcatchers. Nonetheless, the Project would not impede the ability for gnatcatchers to disperse to and from the HGV open space. There is an abundance of core gnatcatcher habitat located further to the southeast around Lake Hodges, to the south around Del Dios and Rancho Cielo, and to the southwest in the Elfin Forest and Rancho La Costa area. The Project would maintain full connectivity of open space with adjacent habitat along the southern boundary, connecting with DDHP to the south; therefore, gnatcatcher movement functions through this area would be conserved. Rather than native habitat removal, the Project would include thinned native habitat in limited building zones adjacent to habitat along portions of the northern and eastern boundaries, connecting with Escondido Creek Conservancy-owned lands; therefore, gnatcatcher movement functions through this area would not be completely removed. Also, along portions of the eastern boundary, the Project's limited building zones would connect with large blocks of rural land further to the east that are largely undeveloped; therefore, these areas would be expected to continue to facilitate some level of gnatcatcher movement and provide access to Escondido Creek. Last, the Project would maintain open space connectivity with large blocks of

rural land along the southern portion of the western boundary, thereby conserving movement functions through that area.

The Project would not obstruct existing mammal access to the Project's BOS and undeveloped lands to the south, east and west. These undeveloped lands provide adequate travel routes to accommodate wildlife movement in the local area during construction and once the Project is built. Mammals would have unobstructed access around the site to DDHP and EFRR. Access to Escondido Creek is already partially constrained by several rural residential properties east of the site; however, the Project proposes no developments in those areas and would not further constrain undeveloped lands in those areas. Further, as described above, habitat within the properties to the east is not expected to be developed in the future based on zoning, density, and steep slope restrictions. Mammals would still be able to move through the fuel modification zone along the eastern boundary of the Project site and through the open space to be conserved in the southern portions of the site.

The Project has been designed to avoid and conserve core habitat in the local area where wildlife are most likely to travel to get to and from Escondido Creek; the site does not provide and is not located within the only path of movement for wildlife in the local area. As depicted on Figure 2.3-6, *Regional Preserve Lands/Wildlife Movement*, the Project is sited at the southern terminus of the larger HGV and the Project's BOS would be contiguous with DDHP to the south and southeast. Although not included in BOS, undeveloped areas included in the Project's fuel modification zones (irrigated zone 1, thinned native zone 2) would abut the Escondido Creek Open Space to the north, conserving contiguity and functionality of habitat in that area. The Project's development footprint is in immediate proximity to the HGV Equestrian Ranch and existing residential development along the Project's south western boundary and a portion of the northeastern boundary, such that the overall development in the local area is consolidated and the edge effect is minimized. The construction of the HGV development limits wildlife connectivity to the north and west of the Project site. The Project's siting of development and open space design conserves the core area and linkage functions in the region by concentrating development in the lower quality, non-native grasslands on the site, and minimizing edge effect by hugging up against Country Club Drive and HGV and existing residential uses to the west. Project development has been consolidated to reduce edge effects and concentrated in the portions of the site with the lowest, relative biological value. The proposed pad locations have been sited as far away from sensitive resources as possible. They are separated from open space and undeveloped areas by manufactured slopes, portions of which would be restored with Diegan coastal sage scrub, in addition to fuel modification zones, portions of which propose native habitat thinning and/or irrigation. Manufactured slopes and fuel modification zones are expected to provide some biological functions and values under post-project conditions, especially in buffering open space from proposed developments, preventing vehicle and pedestrian encroachment, and providing habitat for animal species known to the local area. In addition, on-site Project development would sit below graded cut slopes and below avoided and thinned native habitat within fuel modification zones. As such, potential indirect impacts from lighting, noise, and other operation-related disturbances would be minimized due to shielding of lines of sight and attenuation provided by the topography of the land. Wildlife would be able to move through habitat that is situated higher and set back from the proposed developments, which is expected to have less of an impact on movement functions.

Although on-site scrub and chaparral that could be used for wildlife movement would be removed, the connection of scrub and chaparral habitat between DDHP and Escondido Creek would be conserved within rural/estate lots and along West Ridge to the east of the site. Similarly, the east-west connection of scrub and chaparral habitat through the southern portion of the site would be conserved, including the restoration of graded slopes outside of the required fuel modification zone with Diegan coastal sage scrub. On-site Project developments have been specifically designed to be setback a minimum of 200 feet; with a 100-foot RPO wetland buffer from riparian habitat within Escondido Creek and in excess of 100 feet from upland habitat within open space. Project-related lighting would be required to adhere to Division 9 of the County LPC. Project lighting adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from such habitat.

In conclusion, **Project impacts on wildlife movement and access to resources within DDHP, EFRR, and Escondido Creek would be less than significant**.

Local and Regional Wildlife Corridors and Linkages (Guideline 20)

As addressed above, the Project would not substantially interfere with connectivity between DDHP, EFRR, and Escondido Creek. The Project would contribute 34.8 acres of BOS preserve to the existing DDHP and EFRR core habitat block, thereby enhancing habitat connectivity in those areas. The Project would introduce new development to the site, and therefore, new barriers; however, the impediments would not substantially interfere with access to Escondido Creek due to the fact they would occur primarily on non-native grassland and alternate access would be available to the east of the site. The Project minimizes edge effect by hugging up against an existing road and HGV and existing developed uses to the west. It further concentrates development in the lower quality, non-native grassland on the site, which does not provide optimal cover and resources for wildlife moving through the area. In conclusion, **impacts to wildlife corridors and linkages would be less than significant.**

Artificial Wildlife Corridors (Guideline 21)

The Project does not create an artificial corridor for birds, and movement functions would continue on the Project site and local area under post-Project conditions. Adequate scrub and chaparral habitat would remain to the south and east of the site, and in the southern portions of the site once the Project is built. Some functionality of the habitat within the fuel modification zones would be retained with respect to providing cover, food, shelter, and other requirements for dispersal and foraging functions. Thinning of native habitat in the outermost fuel modification zone would allow for native shrubs to be retained, which although counted toward the Project impacts in this document, would provide some habitat value for wildlife that occur in the local area. Similarly, the Project would not create an artificial corridor for mammals. As addressed above, the Project would introduce new barriers on the Project site itself, but the impediments would not substantially interfere with access due to alternate travel routes in the local area. Adequate space and connectivity of habitat would remain in the local area, as depicted on Figure 2.3-6. Local and regional movement functions would continue further to the east, as well as further to the south and in the southern portions of the site. Impacts to wildlife corridors along Escondido Creek would be short-term and temporary, during construction only, except for

ongoing fuel modification zone maintenance for fire safety. The improvements in this area would not create an artificial corridor, but instead, would widen the corridor and enhance the corridor functions. On-site Project development would be setback and buffered a minimum 200 feet with a 100-foot RPO wetland buffer from riparian and wetland habitat within Escondido Creek, and 100 feet from BOS and other undeveloped upland habitat on and adjacent to the site. Project-related lighting would be required to adhere to Division 9 of the San Diego County LPC and would not adversely affect wildlife movement. In conclusion, although site development would introduce a new impediment to local wildlife movement, the effects would not be substantially adverse and no artificial corridors would be created. **Impacts related to artificial wildlife corridors would be less than significant**.

Indirect Effects (Guideline 22)

A wildlife corridor is identified along Escondido Creek. Project noise is not anticipated to adversely impact sensitive species at this location during Project operations, as the closest facility would be the WTWRF (surrounded by a 6-foot wall) and intervening space. Additionally, development has been setback and buffered on-site BOS, and adjacent undeveloped lands. All Project-related lighting would be required to adhere to Division 9 of the County LPC. Project lighting adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from such habitat. **Impacts to wildlife corridors or linkages resulting from lighting or noise would be less than significant**.

Adequate Corridor Width (Guideline 23)

The Project would maintain adequate widths and would not further constrain existing corridors and linkages in the local area. Impacts along the Escondido Creek corridor would be short-term and temporary, during construction only, except for ongoing fuel modification zone maintenance for fire safety. The improvements in this area would widen the corridor and enhance the corridor functions by removing existing impediments. On-site Project developments are setback and buffered a minimum 200 feet with a 100-foot RPO wetland buffer from Escondido Creek, and 100 feet from BOS and other undeveloped upland habitat on and adjacent to the site. The linkage of scrub and chaparral habitat between DDHP and Escondido Creek would be conserved along the eastern boundary of the site and further to the east. As depicted on Figure 2.3-6, a minimum width of 1,000 feet would be maintained within the linear arrangement of existing rural and undeveloped lands to the east of the site. These lands generally follow a ridgeline characterized by coastal sage scrub and chaparral that links the DDHP to Escondido Creek. Slope steepness in this area would be expected to preclude future development, but is not too steep to accommodate wildlife movement along the north-south linear path of habitat, particularly for gnatcatcher and large mammals. Although the Project would result in removal of some scrub and chaparral that is connected to habitat to the east, a continuous strip of fuel modification zone that includes thinned native habitat and predominately native plant species assemblage would be maintained along the entirety of the eastern boundary. Habitat that links the Project site to DDHP and EFRR further to the south would also be conserved. The Project would contribute 34.8 acres of BOS to the existing DDHP and EFRR core habitat block, thereby enhancing habitat connectivity, widening the linkage, and conserving wildlife movement functions in those areas. Therefore, although the Project would reduce corridor width by removing native vegetation on the east side of the

Project, **the Project maintains adequate widths of at least 1,000 feet and would not further constrain an already narrow corridor, and impacts would be less than significant**.

Adequate Visual Continuity (Guideline 24)

The Project would not impair visual continuity within corridors or linkages in the local area. Figure 2.3-6 depicts expected wildlife movement patterns in the local area. Considering topography and vegetative cover along travel routes, wildlife potentially moving through the local area would likely access the site from three key points of entry: (1) from Escondido Creek open space along the northeastern boundary of the site; (2) from the West Ridge area along the eastern and southeastern boundary; and (3) from the DDHP along the extreme southern boundary. Wildlife moving from the north (from Escondido Creek and Escondido Creek Conservancy lands) would still have lines-of-sight to scrub and chaparral around the northeastern corner and along the eastern boundary of the site. They would also have lines-of-sight to additional habitat located further to the northeast and east of the site. These areas would lead them to the existing rural and undeveloped lands to the east of the site. These lands follow a scrub- and chaparral-vegetated ridgeline with optimal high points that provide birds and mammals long lines-of-sight. Wildlife moving from the southeast (from West Ridge) would have visual continuity up to the saddle and existing rural residence immediately southeast of the site. Once at the saddle, lines-of-sight would be conserved to the north along the eastern boundary of the site and to the west into the BOS in the southern portions of the site. East-west lines-of-site would be maintained within the BOS in the southern portions of the site, then south into the DDHP. North-south lines-of-sight from the saddle would be maintained along the eastern boundary of the site within thinned native habitat, and further to the east along the ridgeline. Wildlife moving from the south (from DDHP) would continue to have an unobstructed view. The lines-of-sight from the southern portions of the site to Escondido Creek are already impeded by rolling topography. With the proposed BOS, wildlife would be able to follow existing topography, including gullied land and shallow slopes, in and out of the open space and to and from visual high spots. Lines-of-sight would be maintained around the northern perimeter of the BOS in the southern portions of the site to allow unobstructed east-west views. As such, **the Project would not impair visual continuity within corridors or linkages in the local area and impacts would be less than significant**.

2.3.2.5 *Local Policies, Ordinances, and Adopted Plans*

Guidelines for the Determination of Significance

A significant impact would occur if the Proposed Project would:

25. Impact coastal sage scrub vegetation within lands outside the MSCP in excess of the County's five-percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

26. Preclude or prevent the preparation of the subregional NCCP. (If, for example, the Project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.)

27. Impact any amount of wetlands or sensitive habitat lands as outlined in the RPO.

28. Not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.

29. Not conform to the goals and requirements as outlined in any applicable HCP, Resource Management Plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.

30. Not minimize impacts to BRCAs within lands in the MSCP, as defined in the Biological Mitigation Ordinance (BMO).

31. Preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

32. Not maintain existing movement corridors and/or habitat linkages, as defined by the BMO.

33. Not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

34. Reduce the likelihood of survival and recovery of listed species in the wild.

35. Result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

36. Result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

Impact Coastal Sage Scrub in Excess of Five Percent, Preclude/Prevent NCCP, or Not Meet NCCP Requirements (Guidelines 25, 26 and 28)

The Project would impact 10.4 acres of Diegan coastal sage scrub outside of adopted MSCP areas. The loss of 10.4 acres would not be in excess of the County's five percent habitat loss threshold.

Project implementation would not preclude or prevent finalizing and adoption of a subregional NCCP. Conserving habitat blocks within and maintaining unobstructed access between the DDHP, EFRR, and Escondido Creek corridor are key targets for the Draft MSCP North County Plan. The Project would contribute BOS immediately adjacent to the existing habitat block preserved in DDHP and EFRR and would not have a substantial adverse impact on Escondido Creek or access to the Creek corridor. The Project would result in preservation of 34.8 acres of

on-site open space and an additional 51.5 acres of off-site open space, for a total of 86.3 acres of open space preserve located in PAMA.

As depicted on Figure 2.3-6, the Project would abut HGV. The Project's conservation design is consistent with the targets for the region. The Project proposes set aside of 34.8 acres of high quality habitat, including 1.8 acres of temporary impacts restored to Diegan coastal sage scrub, adjacent to the DDHP and EFRR habitat block. This contribution would expand regional live-in habitat placed in preservation and conserve east-west movement functions across the southern portions of the Project site, from West Ridge over to Escondido Creek. Further, the design would not prevent north-south access to Escondido Creek, as alternative travel routes and a regional corridor exists further to the east of the site. Therefore, the Project would not conflict with the conservation goals and objectives of the Draft MSCP North County Plan for the local area.

An analysis was completed for Project impacts on coastal sage scrub, coastal sage-chaparral transition, and non-native grassland compared to those reported for the region in the Draft MSCP North County Plan area, including data related to proposed PAMA designations and conservation targets. The results of the analysis are detailed in Appendix E. The analysis demonstrates that Project impacts on Diegan coastal sage scrub, coastal sage-chaparral scrub, and non-native grassland would be extremely small compared to the amount of existing regional habitat reported within the Draft MSCP North County Plan area, including the total expected and targeted for conservation within PAMA.

As evidenced by the small percentages of impact contribution, the loss of these habitat types as a result of the Project would not preclude the implementation of the Draft MSCP North County Plan. For example, it is acknowledged that non-native grassland on site contributes to raptor foraging in the PAMA; however, there are 14,841 total acres of non-native grassland reported as occurring in PAMA within the Draft MSCP North County Plan area boundaries, of which, 10,817 acres are expected to be conserved based on conservation percentage targets. Project impacts represent less than 1.0 percent (0.30 percent) of the total non-native grassland within PAMA and less than 1.0 percent (0.41 percent) of the total expected to be conserved in the Plan area. For coastal sage scrub, the percentages are much less, as Project impacts represent less than 1.0 percent (0.04 percent) of the total coastal sage scrub within PAMA and less than 1.0 percent (0.06 percent) of the total expected to be conserved in the Plan area.

With respect to local preserve design configuration, the grassland located within PAMA on the site is not occupied by sensitive species, is not essential to facilitate wildlife movement in the local area, and although it does function as foraging habitat for raptors, it does not represent the only available foraging habitat in the local area. Wildlife would still have access to and from Escondido Creek and core habitat within the DDHP and EFRR. Target species, such as gnatcatcher and mule deer, would still be able to migrate and disperse through the local area. The Project site does not serve as the only area of movement to and from these areas and would not preclude wildlife from accessing key resources in the local area. The Project proposes on-site BOS preservation and off-site preservation of habitat with equivalent or superior functions and values compared to that which would be lost with Project implementation. With respect to local conservation targets, as summarized within Appendix E, the Project would be consistent with the conservation goals and objectives for the Harmony Grove Core Area, based on the draft circulated for public review in 2009.

The Project site is identified as PAMA in the Draft MSCP North County Plan, but these areas do not substantially contribute to the conservation targets for the local area. The majority of Project impacts are restricted to non-native grassland that had been previously disturbed and subject to incompatible lands uses for many years. It is acknowledged that the grassland provides open undeveloped land adjacent to the Escondido Creek corridor. It does not, however, support key habitat or target species for the Draft MSCP North County Plan. The grassland lacks an abundance of cover and landscape features (e.g., ridgelines, gullied land, linear stands of vegetation, drainage features, etc.) typically associated with wildlife travel routes and movement corridors, and does not support critical populations of species or provide an abundance of food, shelter, or other biological resources, as evidenced by the results of the biological surveys. At best, the grassland provides available space for animals commonly occurring in the region and foraging habitat for raptors. Impacts to grassland, which constitute the majority of PAMA on the Project site, would not preclude or prevent approval and adoption of the Draft MSCP North County Plan.

One of the key targets for the Draft MSCP North County Plan and preserve assemblage for PAMA is gnatcatcher. The Project site supports Diegan coastal sage scrub of both Low and Intermediate Value within PAMA; however, the site is not vital to support a viable population of gnatcatchers in perpetuity, considering only a single breeding pair was found on site in 2014 and lack of value for species nesting (County 2008b). The potential for gnatcatchers to breed at other locations on the site is considered low based on small patch size of suitable habitat, lack of constituent vegetative elements (i.e., dominated by buckwheat, black sage, and chaparral constituents), and the fact that no additional breeding pairs were observed during 2014 protocol surveys. Portions of the site may facilitate gnatcatcher movement in the local area, but those portions may not be critical and alternative dispersal habitat within PAMA is located to the east of the site. Impacts to coastal sage scrub on the Project site would not jeopardize the gnatcatcher or preclude or prevent approval and adoption of the Draft MSCP North County Plan.

The Project would impact 10.4 acres out of 10.9 on-site acres of coastal sage scrub habitat. As described below, the overall impacts on coastal sage scrub would be minimized through a combination of design features, on-site restoration, and preservation. The impacts would be further mitigated through additional off-site preservation of higher quality habitat with equivalent or superior function and greater long-term conservation value compared to that which would be impacted.

Section 4.3 of the NCCP Guidelines (CDFW 1993a) states, in part: “Project design must be consistent with the Conservation Guidelines and with any guidelines adopted by the subregion and concurred with by the CDFG and USFWS and must, to the maximum extent practicable, minimize habitat loss.” The Project design does not minimize habitat loss to the maximum extent practicable. However, impacts are allowable according to the Southern California Coastal Sage Scrub NCCP Conservation Guidelines (CDFW 1993b), which establish the criteria for determining a site’s potential value for conservation. According to the NCCP Logic Flow Chart, the quality of habitat supported on the Project site is defined as being “Low Value” and “Intermediate Value.” The County’s Habitat Evaluation shows the Project site ranked as having No Value to the coastal California gnatcatcher for nesting (County 2008b). According to the Conservation Guidelines, sites of Low and Intermediate Value can be impacted on a case by case basis with appropriate mitigation.

Of the 10.4 acres of coastal sage scrub that would be impacted, approximately 4.1 acres (39 percent) is made of up smaller, Low Value fragmented patches in the southern and western portions of the Project impact area where gnatcatchers were not detected during surveys, but which could be used for foraging, migration and dispersal. These 4.1 acres would be considered to have Low Value using the criteria for the NCCP Logic Flow Chart because of their fragmented nature and small patch size, and their low function and value for sensitive species. The remaining 6.3 acres of coastal sage scrub in the eastern portion of the site would be considered to have Intermediate Value, given the habitat was confirmed to be used for breeding by gnatcatcher and is characterized by larger, intact stands. As mentioned above, according to the Conservation Guidelines, the habitat can be impacted on a case by case basis with appropriate mitigation.

Impacts to on-site coastal sage scrub would be minimized through a combination of design features, on-site restoration, and preservation. The impacts would be further mitigated through additional off-site preservation. As stated above, some of the impacted habitat would occur within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. The Project would further utilize native coastal sage scrub species in the landscape palette to the extent allowed to meet fire and landscape requirements, thereby replacing some additional functionality on site and minimizing the impact. Additional areas within the Project temporary impact footprint would be restored to coastal sage scrub and placed within BOS, thereby replacing some of the habitat loss and minimizing the overall impact to the habitat on site. Last, the Project would preserve additional off-site habitat that will be occupied by gnatcatcher, much larger in size, and of equivalent or superior quality, function, and value compared to that being impacted by the Project.

The loss would be mitigated in accordance with Section 4.3 of the NCCP Guidelines and offset by preserving on-site habitat and additional off-site habitat in the region (as further described herein). Compensatory mitigation is proposed at a 2:1 ratio, which is consistent with ratios established by the County and Resource Agencies. The Project is preserving 2.3 acres of on-site coastal sage scrub, including 1.8 acres of Diegan coastal sage scrub restoration. As a regulatory requirement, the Project will obtain an HLP from the County, which requires concurrence from the Wildlife Agencies prior to issuance. The HLP will incorporate the avoidance, minimization, and compensatory mitigation measures, and will include detailed information about the specific type(s) and location(s) for the mitigation. Compensatory mitigation measures are proposed to offset the loss of the coastal sage scrub habitat. Approximately 1.8 acres would be restored or created within temporary impact areas along the southern boundary. These 1.8 acres would be preserved, along with an additional 0.5 acre, for a total of 2.3 acres of preserved coastal sage scrub within BOS for the Project. In addition to the on-site restoration, creation, and preservation of 2.3 acres, the Project proposes one or a combination of the following for an additional 18.5 acres of coastal sage scrub preservation in the region (as described herein): (1) the recordation of a BOS easement, RMP implementation, and long-term management of land containing occupied coastal sage scrub as approved by the County and Wildlife Agencies; and/or (2) purchase of occupied coastal sage scrub credits from a conservation bank as approved by the County and Wildlife Agencies. To the extent possible, mitigation will occur within High Value or Intermediate Value lands using the NCCP Conservation Guidelines, or lands supporting like-functioning habitat located in PAMA and in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and

Wildlife Agencies. The Project as a whole would therefore result in a net increase of 18.5 acres or 70 percent of coastal sage scrub preservation compared to the 10.9 acres that currently exist on site, portions of which are fragmented and of Low Value.

Project impacts on coastal sage scrub would not preclude the implementation of the Draft MSCP North County Plan. As such, although impacts would be significant, the Project would appropriately mitigate for the loss of coastal sage scrub habitat.

The Proposed Project is outside the adopted MSCP area, but within the boundary of the Draft MSCP North County Plan. Based on the discussion of on-site habitat value and mitigation ratios discussed above, **NCCP-related impacts would be less than significant.**

County RPO Wetlands (Guideline 27)

Off-site impacts would occur to 0.72 acre RPO wetlands at the Country Club Drive low-water crossing over Escondido Creek. The anticipated improvements would include construction of a new bridge that would span the flood limits of the Creek and allow for safe passage for the existing residents and future residents of the Project that rely on Country Club Drive. The bridge span represents the least environmentally damaging alternative to crossing the Creek and impacts to wetland would be unavoidable. The bridge span would provide a superior condition to that which currently exists. The improvements would be restricted to only those necessary to provide a safe crossing and enhance the biological and hydrological functions and services of the reach. The impacts would be primarily temporary for equipment access and staging during bridge construction. Permanent impacts would be limited to bridge abutments, footings, bank stabilization, and Fuel Modification Zone 2 thinning requirements. The impacts would be necessary to remove the existing low-water crossing, construct the new span bridge, stabilize the channel embankment, and restore the riverine hydrology of the reach. **These impacts to County RPO wetlands are identified as significant. (Impact BI-8)**

Coastal Sage Scrub Habitat Loss (Guideline 28)

The Project would impact 10.4 acres of coastal sage scrub habitat. The loss would be mitigated in accordance with Section 4.3 of the NCCP Guidelines. Compensatory mitigation is proposed at a 2:1 ratio, which is consistent with ratios established by the County and Resource Agencies. The overall impacts on coastal sage scrub would be minimized through a combination of design features, on-site restoration, and preservation. The impacts would be further mitigated through additional off-site preservation of higher quality habitat with equivalent or superior function and greater long-term conservation value compared to that which would be impacted. The Project is preserving 2.3 acres of on-site coastal sage scrub, including 1.8 acres of Diegan coastal sage scrub restoration.

As stated above, the Project is required to obtain an HLP from the County, which requires concurrence from the Wildlife Agencies prior to issuance. The HLP will incorporate the avoidance, minimization, and compensatory mitigation measures and will include detailed information about the specific type(s) and location(s) for the mitigation as addressed herein. Compensatory mitigation measures are proposed herein to offset the loss of the coastal sage scrub habitat. Approximately 1.8 acres would be restored or created within temporary impact

areas along the southern boundary. These 1.8 acres will be preserved, along with an additional 0.5 acre, for a total of 2.3 acres of preserved coastal sage scrub within BOS for the Project. In addition to the on-site restoration, creation, and preservation of 2.3 acres, the Project proposes an additional 18.5 acres of coastal sage scrub preservation in the region, as stated above. As a whole, the Project would therefore result in a net increase of 18.5 acres or 70 percent of coastal sage scrub preservation compared to the 10.9 acres that currently exist on site, portions of which are fragmented and of Low Value.

Project impacts on coastal sage scrub would not preclude the implementation of the Draft North County MSCP Subarea Plan. As such, the Project would appropriately minimize and mitigate for the loss of coastal sage scrub habitat. As such, **the Project would not conflict with Section 4.3 of the NCCP Guidelines and no significant impact would occur.**

Regional Planning Goals and Conformance/Minimization of Impacts to (Guidelines 29 and 30)

No adopted HCP, RMP, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the Project. The Project site is not within an adopted MSCP planning area and the BMO does not apply. As such, **the Project would not conflict with adopted plans and no significant impact would occur.**

Connectivity between Areas of High Habitat Values (Guideline 31)

The Project would not preclude connectivity between high habitat value areas. The Project abuts existing residential uses to the east and west, as well as equestrian park elements of HGV once constructed. The southern portions of the site facilitate east-west wildlife movement and the eastern boundary of the site facilitates north-south movement. Wildlife also move east-west within the Escondido Creek corridor just to the north of the site. The existing residential uses and construction of HGV development limits wildlife connectivity to the north, east, and west. The Project would conserve 34.8 acres of land in the southern portion of the site in a BOS easement, thus continuing to allow for wildlife to access the Project site from the south, east, and west. The Project further includes landscaped slopes and thinned-native habitat within the fuel modification zones along the eastern boundary of the site, thereby conserving some north-south movement functions.

High value areas are identified by the County's Habitat Evaluation Model (County 2008a) to the north, east, and west of the site, in addition to portions of the site itself. A contiguous swath of high value designation generally extends east-west across the central portion of the site. This swath connects directly to lands designated as high value within the HGV Equestrian Ranch west of the Project site. The Project would disrupt connectivity along this high value swath; however, the land within the HGV to the west should not be afforded high value designations given the development plans and zoning restrictions on the land that are attached to the HGV Specific Plan. As noted, the area is slated for an equestrian center and there are no plans for placing the land within a BOS easement. In addition, the land is characterized by non-native grassland that burned during the Cocos Fire. The current biological functions and values in these off-site lands are expected to be limited and do not justify high value habitat designation.

While the Project site itself does not function as a corridor, the eastern edge of the site likely supports north-south wildlife movement that occurs along the West Ridge, which would connect the gnatcatcher pairs north of Escondido Creek to DDHP. There is an area of high value gnatcatcher habitat approximately 0.5 mile northeast of the site (County 2008b). There is no direct connection to this habitat from the Project site. The site is separated from this area by residential uses, although a constrained and fragmented connection of habitat exists. Movement function along the eastern edge of the site would be conserved within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. Gnatcatchers and other wildlife will still be able to move unobstructed further to the east of the site near the West Ridge area.

Impacts to on-site coastal sage scrub would be minimized through a combination of design features, on-site restoration and preservation, and off-site preservation. As stated above, some of the impacted habitat would occur within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. The Project would further utilize native coastal sage scrub species in the landscape palette to the extent allowed to meet fire and landscape requirements, thereby replacing some additional functionality on site and minimizing the impact. Additional areas within the Project temporary impact footprint would be restored to coastal sage scrub and placed within BOS, thereby replacing some of the habitat loss and minimizing the overall impact to the habitat on site. Last, the Project would preserve additional off-site habitat that would be much larger in size and of equivalent or superior quality, function, and value to the region.

The Project does not preclude movement of gnatcatchers or other wildlife between high value areas, including DDHP and Escondido Creek, as discussed in detail in Section 2.3.2.4. As such, **the Project would not preclude connectivity between high habitat value areas in the region and impacts would be less than significant.**

Maintenance of BMO-identified Corridors (Guideline 32)

The Project does not occur within an adopted MSCP planning area and the BMO does not apply. **No impact would occur to BMO-identified corridors.**

Avoidance of MSCP Narrow Endemic Species (Guideline 33)

The Project does not occur within an adopted MSCP planning area and protection of MSCP narrow endemics does not apply. **No impact would occur to MSCP narrow endemic species.**

Survival and Recovery of Listed Species in the Wild (Guideline 34)

As discussed under Guideline 1 the Project could impact one pair of (nested) coastal California gnatcatchers. There is also a potential for impacts to least Bell's vireo if they should move into the area for nesting. The number of birds potentially impacted is very low and does not constitute a critical population based Project field work completed by HELIX, as well as the small amount of available habitat of appropriate quality. As a result, **the Project would not reduce the likelihood of survival or recovery for either species and impacts would be less than significant**.

Migratory Bird Treaty Act (Guideline 35)

Implementation of the project could potentially result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA), as breeding birds may temporarily or permanently leave their territories to avoid construction activities, which could lead to reduced reproductive success and increased mortality. **Impacts to the MBTA would be potentially significant. (Impact BI-9)**

Bald and Golden Eagle Treaty Act (Guideline 36)

Please refer to discussion under Guideline 5. Bald eagles are not in the study area. Because impacts to golden eagles nesting habitat are not anticipated, no take of eagles, eagle eggs, etc. is anticipated. The nearest known historic golden eagle nest is approximately 1.5 miles to the south of the Project site. There have been no recent sightings of territorial eagles at this nest location. The Project site does not contain nesting habitat and it is not within any known golden eagle territory. While there is adequate eagle foraging habitat (open non-native grassland) on site, the surrounding habitat fragmentation and the distance from known eagle territories would indicate that the site has low value for golden eagle. The surrounding area is primarily urbanized and new nesting in the vicinity is unlikely. Therefore, **no impacts are anticipated to golden eagle or its habitat, and no significant impact would occur.**

2.3.3 Cumulative Impact Analysis

Guidelines for the Determination of Significance

A significant cumulative impact would occur if the Proposed Project would:

37. The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species.

38. Have impacts that are individually limited, but cumulatively considerable.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

Impacts that may not be considered significant on a project-specific level can become significant when viewed in the context of other losses in the vicinity of the Project site. When evaluating cumulative impacts, CEQA states that "lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used" (Section 15130[b][3]). The area of consideration for cumulative biological projects impacts was based on an approximate 3.0 miles from the Project site, including the foothills to the north and northeast of the Project site and extending south to the northern edge of

Olivenhain Reservoir. The cumulative study area also extends slightly beyond I-15 to the east and north of SR 78. The cumulative study area was chosen because it includes areas with similar biological resources as the Project site, as well as capturing the watershed for the Project site, including urbanized areas draining to Escondido Creek upstream and downstream of the site. It also includes the nearest Draft MSCP North County Plan PAMA areas and the Mt. Whitney/Double Peak area south to Escondido Creek. The area of consideration includes lands within a reasonable distance from the Project site that may have a biologically based connection to the site in terms of habitat connectivity and development in the region.

A total of 21 projects (including the proposed Project) were reviewed for this cumulative analysis (Table 2.3-6, *Cumulative Impacts on Biological Resources*, and Figure 2.3-7, *Biological Cumulative Study Area*). Of these 21 cumulative projects, 8 would result in significant or potentially significant cumulative impacts to sensitive biological resources. The remaining 13 projects either would not result in impacts to sensitive biological resources or information on impacts is not available.

Cumulative Impacts to Special Status Species

The Project has the potential to contribute to the cumulative impact on coastal California gnatcatcher, least Bell's vireo, and raptors (i.e., loss of raptor foraging habitat).

The cumulative projects with available data would impact 106.4 acres of coastal sage scrub habitat. The loss of coastal sage scrub habitat would represent a potential cumulative impact on the coastal California gnatcatcher. This impact would be potentially significant. The proposed Project would result in impacts to 10.4 acres of coastal sage scrub, a portion of which was determined to support a breeding gnatcatcher pair. Therefore, the proposed Project would contribute to the significant cumulative impact on coastal California gnatcatcher. Projects are required to implement avoidance measures so that direct, inadvertent take of gnatcatcher individuals is prevented. In addition, projects are required to compensate impacts on coastal sage scrub at a minimum 1:1 ratio, which ensures that the loss of occupied and suitable habitat for the gnatcatcher is fully compensated. The proposed Project would implement required gnatcatcher avoidance measures and compensate the loss of coastal sage scrub habitat at a minimum 2:1 ratio through a combination of on- and off-site preservation. Because habitat loss would be compensated at this higher ratio, **the Proposed Project's contribution to the cumulative impact would be less than considerable and reduced to a less than significant level.**

The cumulative projects would impact 7.79 acres of riparian/wetland habitat, which is the preferred habitat of the least Bell's vireo. The cumulative loss of riparian/wetland habitat would represent a significant cumulative impact on least Bell's vireo. The proposed Project would result in impacts to 0.72 acre of riparian/wetland habitat (some of which would be temporary in nature), a portion of which was determined to support least Bell's vireo, although no breeding vireo were observed. Nevertheless, vireo is a federally and State-listed endangered species and the Project's contribution to the cumulative impact would be significant. As with the coastal California gnatcatcher, projects are required to implement avoidance measures so that direct, inadvertent take of vireo is prevented. In addition, projects are required to compensate impacts on riparian/wetland habitat at a minimum 1:1 ratio, which ensures that the loss of occupied and suitable habitat for vireo is fully compensated. The proposed Project would implement required

vireo avoidance measures and compensate the loss of riparian/wetland habitat at a minimum 1:1 ratio through a combination of on- and/or off-site preservation and restoration. **With the implementation of these measures, the Proposed Project's contribution to the cumulative impact would be less than considerable and reduced to a less than significant level.**

The cumulative projects would impact 263.0 acres of non-native grassland that potentially serves as raptor foraging habitat. Cumulative impacts to raptors would be significant since the cumulative projects would further reduce the amount of foraging habitat available for these species. The proposed Project would result in 44.2 acres of temporary and permanent impacts to non-native grassland. As discussed under Guidelines 1, 3, 6 and 31, however, raptors seen during HELIX field work in the area over the past couple years generally were noted as occasional flyovers. The grassland, therefore, does not constitute essential foraging habitat. **The Project's contribution to significant cumulative impacts to raptors based on loss of non-native grassland would be less than considerable, and therefore less than significant.**

Relative to cumulative impacts on sensitive habitat used by other sensitive species, the only habitat for which cumulative issues are identified as significant is coastal sage scrub, discussed above in this section. Impacts would be mitigated through the implementation of avoidance measures and habitat based compensatory mitigation, including on-site preservation and purchase of off-site habitat. **Implementation of these measures would reduce the Project's contribution on the cumulative impact to less than significant levels.**

Cumulative Impacts to Riparian and Sensitive Habitats

The Project would contribute to the cumulative impact on sensitive wetland and upland communities. The Project would mitigate project-level impacts in accordance with County, Wildlife Agency, and Regulatory Agency requirements. Impacts to wetland/riparian habitat and sensitive upland communities would be fully mitigated in-kind at County-approved ratios through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and/or preservation; and/or off-site purchase of mitigation credits at an approved mitigation bank, such as the future Brook Forest Conservation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County, Wildlife Agencies, and Regulatory Agencies; thus providing long-term conservation value. The County approved mitigation ratios are standardized and not dependent upon the quality of habitat. Rather, the mitigation ratios recognize the regional importance of the habitat, the overall rarity of the habitat, and the number and variety of species it supports. Mitigation for habitat loss is required to compensate for direct impacts as well as cumulative loss of habitat. Since current regulations require mitigation for wetland impacts to include establishment (i.e., creation) or re-establishment of the same habitat at a minimum 1:1 ratio, coupled with rehabilitation (i.e., restoration), enhancement, and/or preservation of habitat, there ultimately would be no contribution to cumulative loss of the resource. As the Project would be in conformance with County guidelines and mitigation ratios, **the Project's contribution to cumulative impacts to sensitive vegetation communities would not be considerable and would be less than significant.**

Cumulative Impacts to Jurisdictional Areas

The Project's impacts to 0.31 acre of federally protected wetlands, while significant at the project level, would be fully mitigated through on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and/or preservation. **With a required 1:1 creation ratio, the Project would result in no net loss of the resource in the region, thus no cumulatively significant impact would occur.**

Cumulative Impacts to Wildlife Movement and Nursery Sites

The cumulative projects are located in existing urbanized areas of San Marcos, Escondido, and unincorporated County, or on the fringes of urbanization. A cumulative impact on wildlife movement has already occurred in the local area. Primary wildlife use areas are located in the Mt. Whitney area, along Escondido Creek, and within the DDHP and EFRR. The Project's siting of development and open space design conserves the core area and linkage functions in the region by concentrating development in the lower quality, non-native grasslands on the site, and minimizing edge effect by hugging up against HGV and existing developed uses to the west. Project development has been consolidated to reduce edge effects and concentrated in the portions of the site with the lowest, relative biological value. The proposed pad locations have been sited as far away from sensitive resources as possible. They are separated from open space and undeveloped areas by manufactured slopes, portions of which would be restored with native habitat, in addition to fuel modification zones, portions of which propose native habitat thinning and/or irrigation. Manufactured slopes and fuel modification zones in open space are expected to provide some biological functions and values under post-Project conditions, especially in buffering open space from proposed developments, preventing vehicle and pedestrian encroachment, and providing habitat for animal species known to the local area. Further, the Project would contribute 34.8 acres of BOS preserve immediately adjacent to the existing core habitat block established by DDHP and EFRR, thereby enhancing habitat connectivity, widening the linkage, and conserving wildlife movement functions in those areas. The Project's BOS would be contiguous with DDHP to the south; and undeveloped lands, rural/estate properties, and lands constrained by steep slopes and rugged terrain to the east and west. Although not included in BOS, undeveloped areas included in the Project's fuel modification zone (thinned native vegetated) would abut the Escondido Creek Open Space to the north, conserving contiguity and functionality of habitat in that area. **With the Project's proposed BOS, restoration, incorporation of design features, and implementation of mitigation measures at the specified ratios, the contribution of the Project to the cumulative impact on wildlife movement would not be considerable and would be less than significant**.

Cumulative Impacts to Local Policies, Ordinances, and Adopted Plans

The cumulative projects would be required to conform to County Guidelines 25 through 36 and provide mitigation as appropriate. Mitigation is proposed to reduce the project-level impacts on migratory birds. **Conformance or mitigation, as appropriate, would be required for the Project and for the other cumulative projects in order to obtain a recommendation for approval, thus no cumulative impacts would occur.**

2.3.4 Significance of Impacts Prior to Mitigation

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

Impact BI-1a The Project will result in impacts to 10.4 acres of Diegan coastal sage scrub, a sensitive natural community type.

Impact BI-1b A single, breeding pair of coastal California gnatcatchers was determined to occupy portions of the on-site Diegan coastal sage scrub that would be impacted by the Project. Impacts to gnatcatcher individuals; occupied habitat; and foraging, migration and dispersal habitat would result in a potentially significant impact to listed species.

Impact BI-1c Least Bell's vireo has been observed using Project-adjacent riparian habitat for foraging and other non-breeding activities. Because there is a potential for use of the area by a breeding pair and for foraging, the Project could result in a potentially significant impact to listed species.

Impact BI-2a The Project would impact seven individuals of summer holly, a County List A plant, and 1,963 wart-stemmed ceanothus, a County List B plant.

Impact BI-2b A single red-shouldered hawk was observed perching in a tree near Escondido Creek. This species could nest at off-site locations within 500 feet of Project impact areas and may forage over the site. The Project would impact non-native grassland that serves as raptor foraging habitat. A potentially significant impact was assessed to loss of this habitat, which could impact the survival of a local population of Species of Special Concern.

Impact BI-2c The Project would result in the significant loss of potential nesting and foraging habitat for yellow-breasted chat, which is designated as State Species of Special Concern and County Group 1 species. A potentially significant impact was assessed to loss of mule fat scrub and willow riparian forest, impacting the survival of a local population of Species of Special Concern.

Impact BI-3a The Project would result in loss of 44.2 acres of non-native grassland that serves as potential foraging habitat for the barn owl and white-tailed kite. This loss of habitat could significantly affect long-term survival of County Group 2 Animal Species.

Impact BI-3b The Project would result in the significant loss of potential nesting and foraging habitat for yellow warbler, which is designated as State Species of Special Concern and County Group 2 species. A potentially significant impact was assessed to loss of mule fat scrub and willow riparian forest, impacting the survival of a local population of Species of Special Concern.

Impact BI-3c The Project would result in a significant loss of 44.6 acres of non-native grassland that serves as raptor foraging habitat.

Impact BI-4 Construction-related noise (including the use of heavy equipment, potential blasting, potential use of a rock crusher, and potential use of cast-in-drilled holes or a pile driver) may significantly impact sensitive bird species such as coastal California gnatcatcher and least Bell's vireo, as well as raptors, which may be nesting within an area where construction noise at the nest exceeds 60 dBA.

Impact BI-5a The Project would result in significant direct impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern willow riparian forest.

Impact BI-5b The Project would result in significant direct impacts to 10.4 acres of Diegan coastal sage scrub (including disturbed).

Impact BI-5c The Project would result in significant direct impacts to 4.2 acres of coastal sage-chaparral transition.

Impact BI-5d The Project would result in significant direct impacts to 14.6 acres of southern mixed chaparral.

Impact BI-5e The Project would result in significant direct impacts to 44.2 acres of non-native grassland.

Impact BI-5f The Project would result in significant direct impacts to 0.08 acre of coast live oak woodland.

Impact BI-6a The Project would result in significant direct impacts to 0.33 acre of wetland waters of the U.S./State (southern riparian forest) and 0.02 acre of non-wetland waters of the U.S./State regulated by the USACE and RWQCB.

Impact BI-6b The Project would result in significant direct impacts to 0.77 acre of CDFW-jurisdictional, vegetated-streambed comprised of 0.71 acre of southern riparian forest, less than 0.01 acre of mule fat scrub, and 0.04 acre of coast live oak woodland. The Project would also impact 0.04 acre of CDFW-jurisdictional, unvegetated streambed.

Impact BI-6c The Project would result in significant direct impacts to 0.72 acre of County RPO wetlands comprised of 0.71 acre of southern riparian forest, less than 0.01 acre of mule fat scrub, and 0.01 acre of coast live oak woodland associated with Escondido Creek.

Impact BI-7 The Project would result in significant impacts to federally protected wetlands.

Impact BI-8 The Project would result in significant impacts to County RPO-protected wetlands.

Impact BI-9 If clearing or grubbing takes place in occupied nesting habitat during the avian breeding season, it could result in a significant killing of migratory birds or destruction of their nests.

2.3.5 Mitigation

M-BI-1a Prior to issuance of a grading permit, the Project Applicant shall preserve 34.8 acres of on-site BOS determined to support sensitive species and habitat functions and values contiguous with the DDHP to the south through the establishment of a conservation easement and the preparation of a Resource Management Plan (RMP) approved by the County and Wildlife Agencies (USFWS and CDFW) to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, by a qualified entity approved by the County and Wildlife Agencies.

The 34.8-acre BOS is depicted on Figure 1-9 and Figure 2.3-5. The habitat types within the BOS are summarized within Table 11 of Appendix E. The RMP shall address the location of the mitigation sites that meet the specific mitigation requirement for the type of habitat (e.g., in-kind habitat preservation, no net loss, presence of special status species, etc.) within the Project site. The open space easement shall be owned by a conservancy, the County, or other similar, experienced entity subject to approval by the County. Funding shall be provided through a non-wasting endowment, Community Facility District or other finance mechanism approved by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

M-BI-1b Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to Diegan coastal sage scrub occupied by coastal California gnatcatcher shall occur at a 2:1 ratio for a total of 20.8 acres of occupied habitat through a combination of on-site preservation of 0.5 acre, on-site restoration and preservation of 1.8 acres, and off-site preservation of 18.5 acres through land acquisition and/or purchase of conservation bank credits, as specified below and approved by the County and Wildlife Agencies as part of the required HLP process.

On-site restoration shall include 1.8 acres of Diegan coastal sage scrub. The restoration shall include preparation and implementation of a restoration plan approved by the County and Wildlife Agencies, to include directives for native container planting and seeding using locally sourced material, temporary irrigation, and monitoring and maintenance for a minimum five-year period until performance standards and success criteria approved by the County and Wildlife Agencies have been met. The 1.8 acres of restored coastal sage scrub shall be placed within a BOS easement, along with the 0.5 acre of avoided coastal sage scrub, and managed in perpetuity in accordance with M-BI-1a.

An additional 18.5 acres of occupied, Intermediate Value or High Value coastal sage scrub, and/or other like-functioning habitat as approved by the County and Wildlife Agencies, shall be provided through one or a combination of the following:

- Off-site preservation of mitigation land, through the recordation of a BOS easement, and preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. Long-term management shall be funded through a non-wasting endowment in an amount determined through preparation of a Property Assessment Record (PAR) or similar method for determining funding amount. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

- If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of occupied coastal sage scrub credits at an approved conservation bank, such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, or other bank deemed acceptable by the County and Wildlife Agencies.

To further prevent inadvertent direct impacts to coastal California gnatcatcher individuals during construction, no grading or clearing shall occur of occupied Diegan coastal sage scrub during the species' breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the gnatcatcher, a pre-construction survey shall be conducted to determine whether gnatcatchers occur within the impact area(s). To avoid take under the federal ESA, impacts to occupied habitat shall be avoided. If there are no gnatcatchers nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any gnatcatchers are observed nesting or displaying breeding/nesting behavior within the area, construction in that area shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after August 31. (See also M-BI-4 for mitigation for indirect noise effects.)

M-BI-1c Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest suitable for least Bell's vireo shall occur at a 3:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and preservation of riparian habitat and/or other like-functioning habitat; and/or off-site purchase of riparian habitat mitigation and/or other like-functioning habitat at

an approved mitigation bank in the local area, such as the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies (USACE, RWQCB, and CDFW), as applicable. The establishment/creation or re-establishment component must be at least 1:1, while the remaining 2:1 can be restoration and enhancement.

To further prevent inadvertent direct impacts to least Bell's vireo individuals during construction, no grading or clearing shall occur within riparian habitat during the breeding season of the least Bell's vireo (March 15 to September 15). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the least Bell's vireo, a pre-construction survey shall be conducted to determine whether vireos occur within the impact area(s). To avoid take under the federal and California ESAs, impacts to occupied habitat shall be avoided. If there are no vireos nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any vireos are observed nesting or displaying breeding/nesting behavior within that area, construction shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after September 15. (See also M-BI-4 for mitigation for indirect noise effects.)

M-BI-2a Prior to issuance of a grading permit, mitigation for impacts to seven summer holly and 1,963 wart-stemmed ceanothus individuals shall occur at a minimum ratio of 3:1 for summer holly and 1:1 for wart-stemmed ceanothus through the preservation of at least 21 summer holly and 1,963 wart-stemmed ceanothus within the BOS easement (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) described above in M-BI-1a.

M-BI-2b Prior to issuance of a grading permit, mitigation for impacts to 44.2 acres of non-native grassland that provides suitable nesting and foraging habitat for several bird species, including raptors, shall occur at a 0.5:1 ratio through the preservation of 0.2 acre on site within the BOS easement (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a, in addition to one or a combination of the following: off-site preservation of 21.9 acres of grassland habitat and/or other like-functioning habitat through the recordation of a BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The proposed open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If

demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 21.9 acres of grassland credits or like-functioning habitat at an approved conservation bank such as the Brook Forest Conservation Bank or other location deemed acceptable by the County. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-2c Prior to issuance of a grading permit, mitigation for impacts to yellow-breasted chat nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest, shall be provided at a 3:1 ratio through implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-3a Prior to issuance of a grading permit, mitigation for loss of foraging area that could impact long-term survival of County Group 2 animals shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.

M-BI-3b Prior to issuance of a grading permit, mitigation for impacts to yellow warbler nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest at a 3:1 ratio, shall be provided through implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-3c Prior to issuance of a grading permit, mitigation for loss of raptor foraging habitat shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.

M-BI-4 If operation of construction dozers, excavators, rock crushers, pile drivers or cast-in-drilled-hole equipment occurs during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), pre-construction survey(s) shall be conducted by a qualified biologist as appropriate prior to issuance of a grading permit, to determine whether these species occur within the areas potentially impacted by noise. If it is determined at the completion of pre-construction surveys that active nests belonging to these sensitive species are absent from the potential impact area, construction shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to these sensitive species, then operation of the following equipment shall not occur within the specified distances from an active nest during the respective breeding seasons: a dozer within 400 feet; an excavator within 350 feet; rock crusher equipment within 1,350 feet; a breaker within 500 feet; a pile driver within 2,600 feet; and cast-in-drilled holes equipment within 350 feet. All grading permits, improvement plans, and the final map shall state the same. Operation of construction dozers, excavators, rock crushers, pile drivers, cast-in-drilled-hole equipment and other noise-generating activities shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding

season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 dBA or ambient. Decibel output will be confirmed by a County-approved noise specialist and intermittent monitoring by a qualified biologist to ensure that conditions have not changed will be required. If pre-construction surveys identify coastal California gnatcatcher, nesting raptors, or least Bell's vireo, blasting will be restricted to the non-breeding season for the identified birds (September 1 to February 14 for coastal California gnatcatcher; July 16 to January 14 for nesting raptors; and September 16 to March 14 for least Bell's vireo) or be completed using wholly chemical means.

M-BI-5a Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest shall occur at a 3:1 ratio as specified in M-BI-1c, above.

M-BI-5b Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to occupied Diegan coastal sage scrub shall occur at a 2:1 ratio as specified in M-BI-1a and M-BI-1b, above.

M-BI-5c Prior to issuance of a grading permit, mitigation for 4.5 acres of impacts to coastal sage-chaparral transition shall occur at a 2:1 ratio through one or a combination of the following: off-site preservation of 9.0 acres of coastal sage-chaparral scrub and/or other like-functioning habitat, through the recordation of BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 9.0 acres of coastal sage-chaparral scrub credits or like-functioning habitat at an approved mitigation bank such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, Brook Forest Conservation Bank, or other location deemed acceptable by the County and Wildlife Agencies.

M-BI-5d Prior to issuance of a grading permit, mitigation for 15.6 acres of impacts to southern mixed chaparral shall occur at a 0.5:1 ratio through the preservation of a minimum 7.8 acres on site within BOS easement (which shall include preparation

and implementation of an RMP and monitoring, maintenance, management, and reporting directives), as required by M-BI-1a.

M-BI-5e Prior to issuance of a grading permit, mitigation for 44.2 acres of impacts to non-native grassland shall occur through implementation of M-BI-2b, above.

M-BI-5f Prior to issuance of a grading permit, mitigation for 0.2 acre of impacts to upland coast live oak woodland shall occur at a 3:1 ratio through the preservation of 0.6 acre on site within BOS easement (which shall include preparation and implementation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a.

M-BI-6a Prior to issuance of a grading permit, demonstration that regulatory permits from the USACE and RWQCB have been issued or that no such permits are required shall be provided to the County. Impacts to 0.31 acre of USACE/RWQCB-jurisdictional wetland waters of the U.S./State shall be mitigated at a 3:1 ratio as described in M-BI-1c, above, unless otherwise required by the USACE and RWQCB. Impacts to 0.03 acre of USACE/RWQCB-jurisdictional non-wetland waters of the U.S./State shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.03 acre on site within BOS easement (which shall include preparation implementation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by the USACE and RWQCB. If required by the USACE and/or RWQCB during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the USACE and RWQCB.

M-BI-6b Prior to issuance of a grading permit, demonstration that regulatory permits from CDFW have been issued or that no such permits are required shall be provided to the County. Impacts to 0.80 acre of CDFW-jurisdictional areas will be mitigated as follows. Impacts to less than 0.01 acre mule fat scrub and 0.71 acre southern riparian forest shall be mitigated at a 3:1 ratio, as described in M-BI-1c, unless otherwise required by CDFW. Impacts to 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed on site within BOS easement (which shall include preparation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by CDFW. If required by CDFW during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by CDFW.

M-BI-6c Prior to issuance of a grading permit, impacts to 0.72 acre of RPO wetland (less than 0.01 acre mule fat scrub, 0.71 acre southern riparian forest, and 0.01 acre

RPO-jurisdictional coast live oak woodland) shall be mitigated at a 3:1 ratio with at least 1:1 creation. Impacts to mule fat scrub and southern riparian forest shall be mitigated as described in M-BI-1c, above. Impacts to 0.01 acre RPO coast live oak woodland shall be provided through purchase of establishment or re-establishment mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County.

M-BI-7 Prior to issuance of a grading permit, impacts to 0.31 acre of federal wetlands shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6a, above, unless otherwise required by USACE.

M-BI-8 Prior to issuance of a grading permit, impacts to 0.72 acre of RPO wetland shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6c, above.

M-BI-9 No grubbing, clearing, or grading shall occur during the general avian breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If grubbing, clearing, or grading would occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until nesting behavior has ceased, nests have failed, or young have fledged.

2.3.6 Conclusion

The implementation of the mitigation measures listed above would reduce all impacts to biological resources to less than significant levels. Construction of the Proposed Project would directly impact habitat for three County Group 1 animal species (coastal California gnatcatcher, least Bell's vireo, and yellow-breasted chat; Impacts BI-1a through 1c, and BI-2c) and a State Species of Special Concern/County Group 2 species (yellow warbler; Impact BI-3b). For impacts to the coastal California gnatcatcher, impacts would be mitigated below a level of significance (M-BI-1a and 1b) by: (1) on- and off-site preservation of Diegan coastal sage scrub, and (2) restriction of habitat impacts during the breeding season. The specified habitat mitigation ratios take into consideration the importance of preserving areas necessary to ensure the continued survival of sensitive species. The habitat preservation ratio is effective because through retention of sustainable habitat, sensitive species can continue to thrive. The mitigation would preserve species habitat and foraging grounds, and thus, help ensure survival of these species within the Project site (open space) and within the County. The mitigation ratios utilized for impacts to these species' habitats were developed based upon NCCP Guidelines (CDFW and California Resources Agency 1997) intended to accomplish preservation of sensitive species, and the wildlife agencies have reviewed and approved these mitigation ratios. The restriction regarding breeding season activities would ensure that no nest would be directly taken during construction.

For impacts to least Bell's vireo, yellow warbler and yellow-breasted chat, mitigation would occur (M-BI-1c, 2c, and 3b) through creation, preservation and enhancement of mule fat scrub and southern willow riparian forest and/or purchase of credits for the same at an approved mitigation bank. Additionally, these standard ratios have been applied to projects within the County since PDS developed its most current version of the Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources (County 2010). The ratio is identified as effective because these reviewing agencies have reached consensus that retention at these ratios will result in sustainable levels of these habitats.

Impacts were also identified to Group 2 species, Species of Special Concern, and common species (Impacts BI-2b, 3a through 3c) that use non-native grassland for foraging. Mitigation would be provided (M-BI-2b and M-BI-3a through 3c) through off-site preservation of non-native grassland or like-functioning habitat. The specified habitat mitigation ratios take into consideration the importance of preserving areas necessary to ensure the continued survival of sensitive species. The habitat preservation ratio is effective because through retention of sustainable habitat, sensitive species can continue to thrive. The mitigation would preserve species habitat and foraging grounds, and thus, help ensure survival of these species within the Project site (open space) and within the County. The mitigation ratio utilized for impacts to these species' foraging habitat (the non-native grassland) in accordance with County guidelines.

The Proposed Project could result in construction-related noise that may significantly impact nesting coastal California gnatcatcher, least Bell's vireo or raptors if construction noise at the nest exceeds 60 dB L_{EQ} (Impact BI-4). This impact would be mitigated below a level of significance through consideration of the noise source, the affected species, and by restricting grubbing, clearing, grading, blasting, rock crushing, pile driving, etc. within appropriate distances, or requiring noise attenuation through such methods as baffling or sound barriers, and as confirmed by a County-approved noise specialist and qualified biologist as specified in M-BI-4. These restrictions would protect the noted species from disturbance associated with movement and noise from construction activities during the breeding season. Because the daily activities of this species would not be disrupted, breeding and nesting activities would continue within proposed on-site open space, thus helping to ensure the survival of this species.

The Proposed Project would result in impacts to mule fat scrub, Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub/chaparral transition, southern mixed chaparral, non-native grassland and coast live-oak woodland, as described in Impacts BI-5a through 5g. Mitigation would occur at specified ratios and locations as described in M-BI-5a through 5g. Implementation of these mitigation measures would avoid or substantially reduce the significant effects because the mitigation ratios for impacts to these habitats were variously developed based on NCCP Guidelines (CDFW and California Resources Agency 1997), and/or the wildlife agencies have reviewed and approved these mitigation ratios, and/or ae consistent with County guidelines.

The Proposed Project would result in impacts to USACE, RWQCB, CDFW and County RPO wetlands/waters (Impacts BI-6a through BI-6c and Impacts BI-7 and BI-8). Impacts would be mitigated below a level of significance through off-site establishment, rehabilitation and preservation (M-BI-6a through M-BI-6c, M-BI-7 and M-BI-8). Implementation of these mitigation measures would fully mitigate impacts to these jurisdictional areas, because the

typical mitigation ratio for impacts to wetlands is 3:1 (with a minimum 1:1 creation ratio thereby replacing the values of the impacted wetland) and the mitigation ratio for Waters of the U.S./ streambed is 1:1, which is a ratio the resource agencies reviewed and approved. Federal, State, and County policies require that projects have a no net loss of wetlands. Because the Proposed Project would mitigate its impacts to wetlands at a 3:1 ratio, including a minimum 1:1 creation ratio and 2:1 rehabilitation/preservation ratio, no net loss of wetland habitat would occur.

Grading and clearing of vegetation associated with construction of the Proposed Project could kill breeding migratory birds or impact their nests, and/or cause them to temporarily or permanently leave their territories, which could lead to reduced reproductive success and increased mortality (Impact BI-9). Impacts would be mitigated below a level of significance by not allowing grading or clearing of vegetation during the breeding season of most avian species (February 15 through August 31) without pre-construction surveys showing absence. Nesting migratory bird species would be protected from disturbance associated with movement and noise from construction activities during the breeding season due to cessation of grading or construction activities. Because the daily activities of these species would not be disrupted, breeding and nesting activities would continue within proposed on-site open space, thus helping to ensure the survival of these species.

Table 2.3-1
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**

Table 2.3-2
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**

Table 2.3-3
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**

Table 2.3-4
IMPACTS TO VEGETATION COMMUNITIES/HABITAT TYPES

Vegetation Community/ Habitat Type	Existing Acres On-site	Impact Acres[1]			
		Project Site	Off-site	Total Impacts	Impact Neutral
Non-native vegetation (11000)	0.8	0.8	0.1	0.9	--
Disturbed habitat (11300)	3.6	3.5	0.3	3.9	--
Urban/developed (12000)	0.9	0.9	1.2	2.1	0.1
Diegan coastal sage scrub (32500)	10.9	10.3	0.1	10.4	0.1
Diegan coastal sage scrub – disturbed (32500)	-	--	<0.1	<0.1	--
Coastal sage-chaparral transition (37G00)	4.5	4.4	0.1	4.5	0.1
Southern mixed chaparral (37121)	46.8	15.6	--	15.6	<0.1
Non-native grassland (42200)	42.4	42.2	2.0	44.2	--
Southern [willow] riparian forest (61300)	-	--	0.71	0.71	--
Mule fat scrub (63310)	-	--	<0.01	<0.01	--
Coast live oak woodland (71160)[2]	0.9	0.1	0.1	0.2	0.1
Eucalyptus woodland (79100)	0.3	--	--	--	--
Total	**111.1**	**77.9**	**4.6**	**82.5**	**0.1**

[1] Upland communities/habitat types are rounded to the nearest 0.1 acre, while wetland communities are rounded to the nearest 0.01; totals do not reflect rounding. Impact acreages include both permanent and temporary impacts. Temporary impact areas within proposed biological open space (1.8 acres) would be restored to Diegan coastal sage scrub with the proposed Project.

[2] Includes impacts from ground disturbance within oak root zone.

Table 2.3-5
IMPACTS TO JURISDICTIONAL WETLANDS AND WATERWAYS

Jurisdictional Resources	IMPACTS					
	Project Site		Off-site Improvement Areas		Total	
	Acres[1]	Linear Feet	Acres[1]	Linear Feet	Acres[1]	Linear Feet
USACE/RWQCB						
Wetland Waters of the U.S./State	--	--	0.31	222	0.31	222
Non-Wetland Waters of the U.S./State	0.01	436	0.02	50	0.03	486
Total	**0.01**	**436**	**0.33**	**272**	**0.34**	**708**
CDFW						
Southern [willow] riparian forest	--	--	0.71	222	0.71	222
Mule fat scrub	--	--	<0.01	0	<0.01	0
Coast live oak woodland	0.04	0	0.01	0	0.05	0
Streambed	0.02	436	0.02	50	0.04	486
Total	**0.06**	**436**	**0.74**	**272**	**0.80**	**708**
County RPO						
Southern [willow] riparian forest	--	--	0.71	222	0.71	222
Mule fat scrub	--	--	<0.01	0	<0.01	0
Coast live oak woodland	--	--	0.01	0	0.01	0
Total	**--**	**--**	**0.72**	**222**	**0.72**	**222**

[1] Acreages are rounded to the nearest 0.01; therefore, totals reflect rounding.

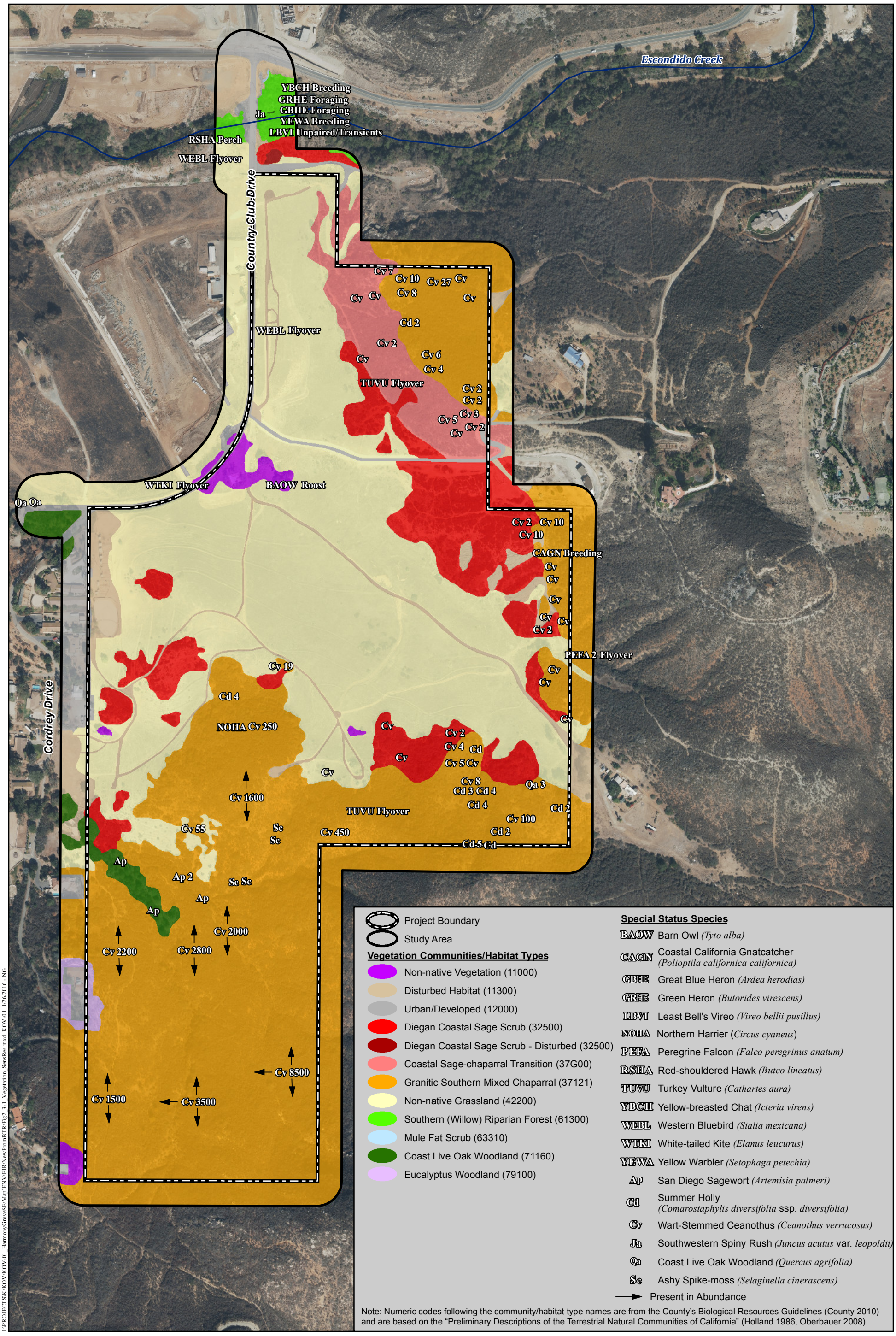
Table 2.3-6
CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

Project Number†	Project Name	Resource									
		Riparian/ Wetland		Coastal Live Oak Woodland		Coastal Sage Scrub		Southern Mixed Chaparral		Non-native Grassland	
		Impacts (I)	Mitigation (M)	I	M	I	M	I	M	I	M
GPA 04-007 REZ 04-014 TM 5382	Montiel Heights/ Montiel Road Townhomes	0	0	0	0	0	0	0	0	0	0
SP 04-003 GPA 04-004 REZ 04-010 VTM 5365 MUP 04-012 MUP 04-013 MUP 04-014	Harmony Grove Village	3.96	6.80	5.8	17.4	37.6	68.6	3.7	1.9	37.7	18.9
--	Marketplace @ Twin Oaks	--	--	--	--	--	--	--	--	--	--
ND 12-822	Citywide Channel Maintenance Programmatic Permit	0.71	1.28	0	0	0	0	0	0	0	0
MF 1785 TSM 479 MFSCDP 10-51 R 10-146 GV 10-85 CUP 10-835 ND 10-806	Candera	--	--	--	--	--	--	--	--	--	--
MF 1392 EIR 03-39	University District Specific Plan	--	--	--	--	--	--	--	--	--	--
SCH 92011057	Kaiser Medical Office Building	--	--	--	--	--	--	--	--	--	--
--	Leigh Hanson Site	--	--	--	--	--	--	--	--	--	--
--	Campus Pointe II	--	--	--	--	--	--	--	--	--	--
MND 12-820 CUP 12-894	Rancho Coronado Phase I School Site	0.35	0.70	0	0	0.25	--	0.47	--	0	0
SUB 09-0002	Kenny Ray Harmony Grove	--	--	--	--	--	--	--	--	--	--
ER 2000-34	Harmony Grove Industrial Park	--	--	--	--	--	--	--	--	--	--
PHG 11-0038	Hale Avenue Resource Recovery Facility (HARRF) Administration Building	0	0	0	0	0	0	0	0	0	0
ER-2006-10	Citracado Parkway Extension	0.71	2.13	0.94	1.7	0.6	0.6	0	0	6.4	4.2

Table 2.3-6 (cont.)
CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

Project Number†	Project Name	Resource									
		Riparian/ Wetland		Coastal Live Oak Woodland		Coastal Sage Scrub		Southern Mixed Chaparral		Non-native Grassland	
		Impacts (I)	Mitigation (M)	I	M	I	M	I	M	I	M
File No. 0800-40 PHG 10-0014	Escondido Asphalt Plant Expansion	0	0	0	0	0	0	0	0	0	0
2007-25-PD 2005-20-PD	The Point	0	0	0	0	0	0	0	0	0	0
2007-18-PD ER 86-43	Springhill Suites by Marriott	0	0	0	0	0	0	0	0	0	0
ADM 10-0001 SCH No. 2009081074	Citracado High School/ Del Lago Academy	0	0	0	0	8.1	8.1	0	0	18.1	--
2001-01-SPA 2005-81-SPA/DA PHG 11-0034 SCH No. 200112106	Escondido Research & Technology Center (ERTC)	1.02	3.06	1.2	3.6	48.4	96.8	0	0	102.8	62.4
SP-13-001 GPA 13-001 STP 13-003 TM 5575 REZ 13-001	Valiano	0.32	0.96	6.7	20.5	1.0	3.6	3.1	1.6	53.8	53.1
Subtotal		**7.07**	**14.93**	**14.64**	**43.2**	**96.0**	**177.7**	**7.3**	**3.5**	**218.80**	**138.6**
--	Harmony Grove Village South Project	0.72	2.13	0.2	0.6	10.4	20.8	15.46	7.8	44.2	22.1
TOTAL		7.79	17.06	14.84	43.8	106.4	198.5	22.9	11.3	263.0	160.7

†TM = Tentative Map; TPM = Tentative Parcel Map; MUP = Major Use Permit; ND = Negative Declaration; EIR = Environmental Impact Report; MND = Mitigated Negative Declaration; SPA = Specific Plan Amendment; SCH = State Clearinghouse
-- = Information Not Available or Not Applicable.



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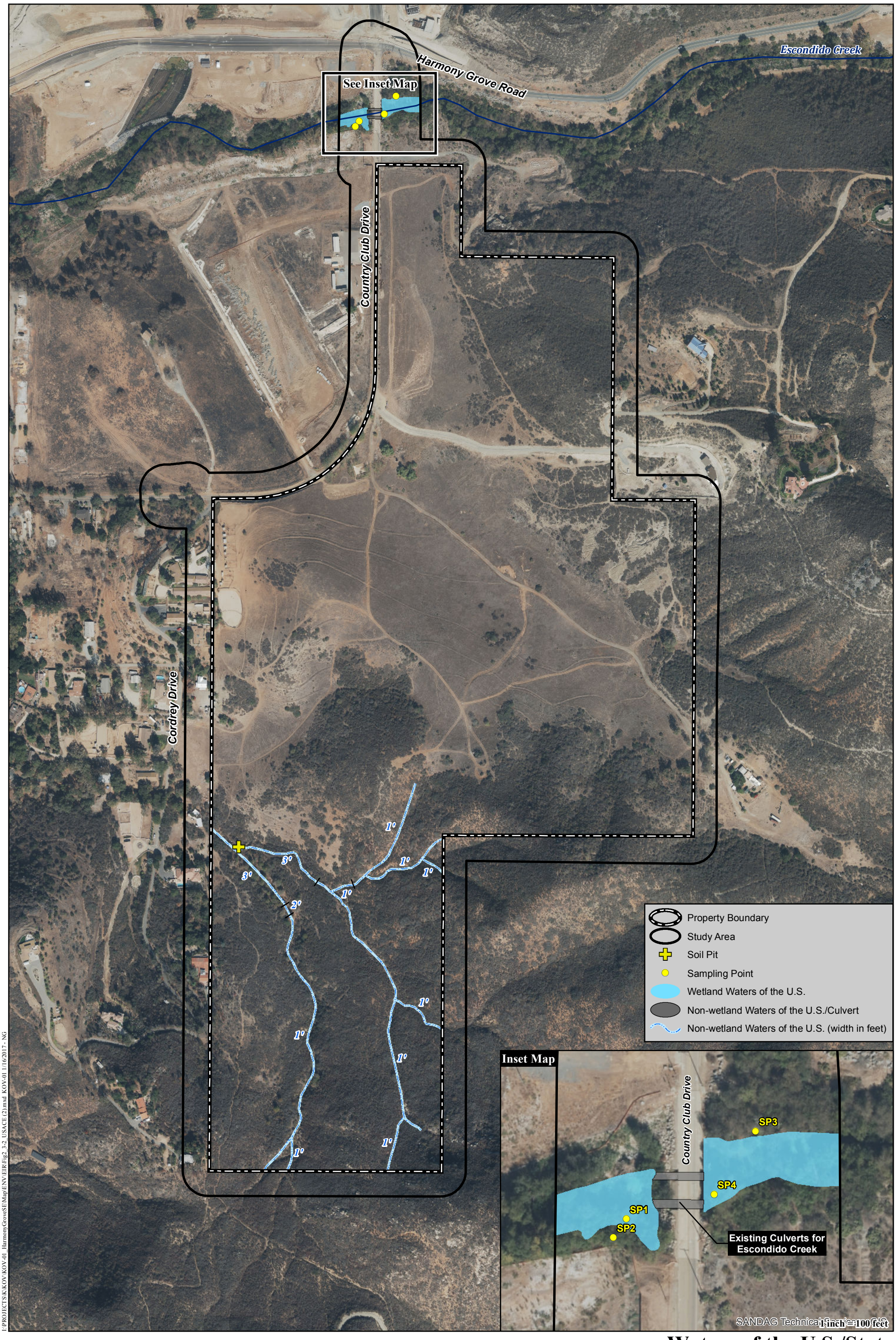
Vegetation and Sensitive Resources

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 2.3-1



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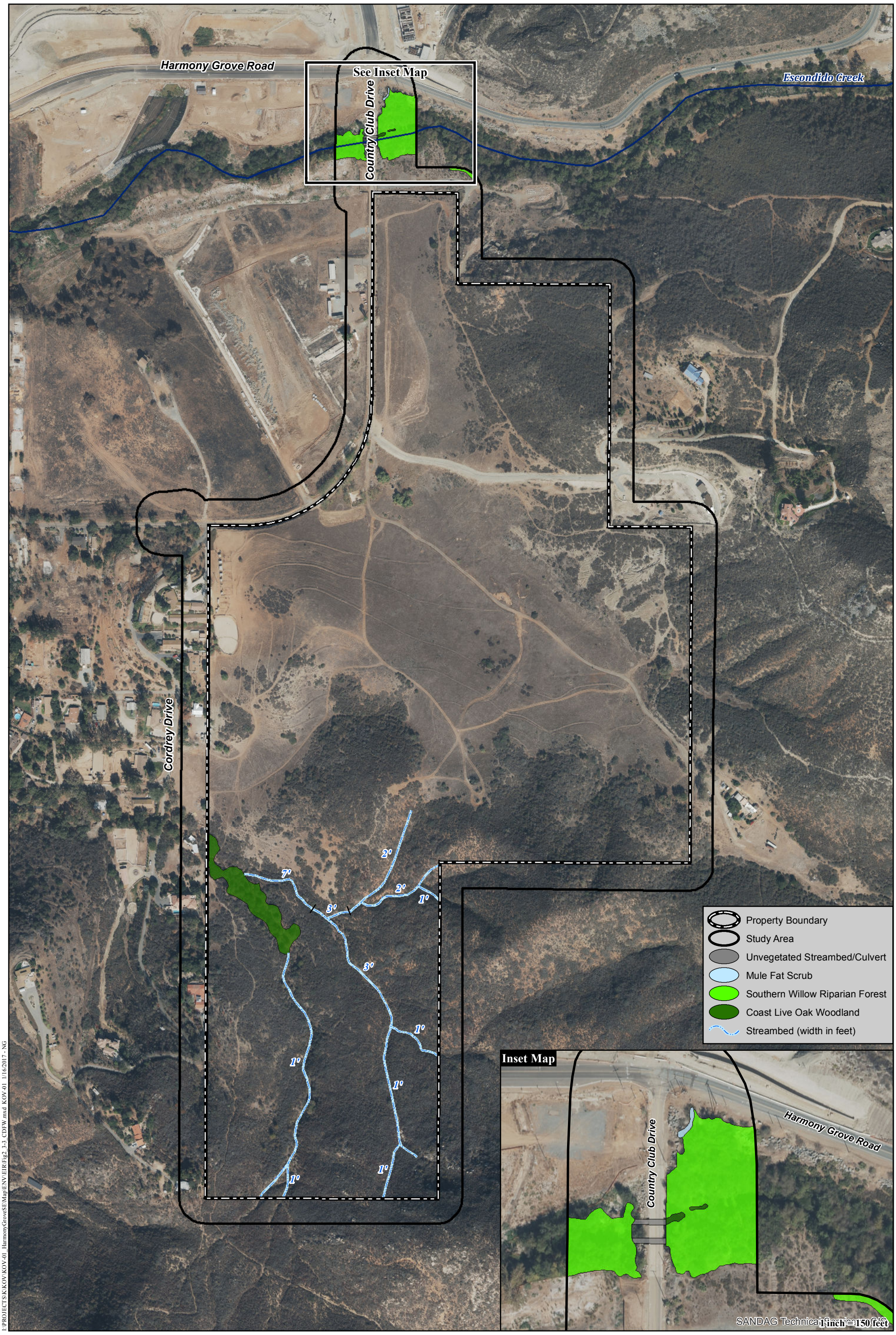
Waters of the U.S./State

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.3-2



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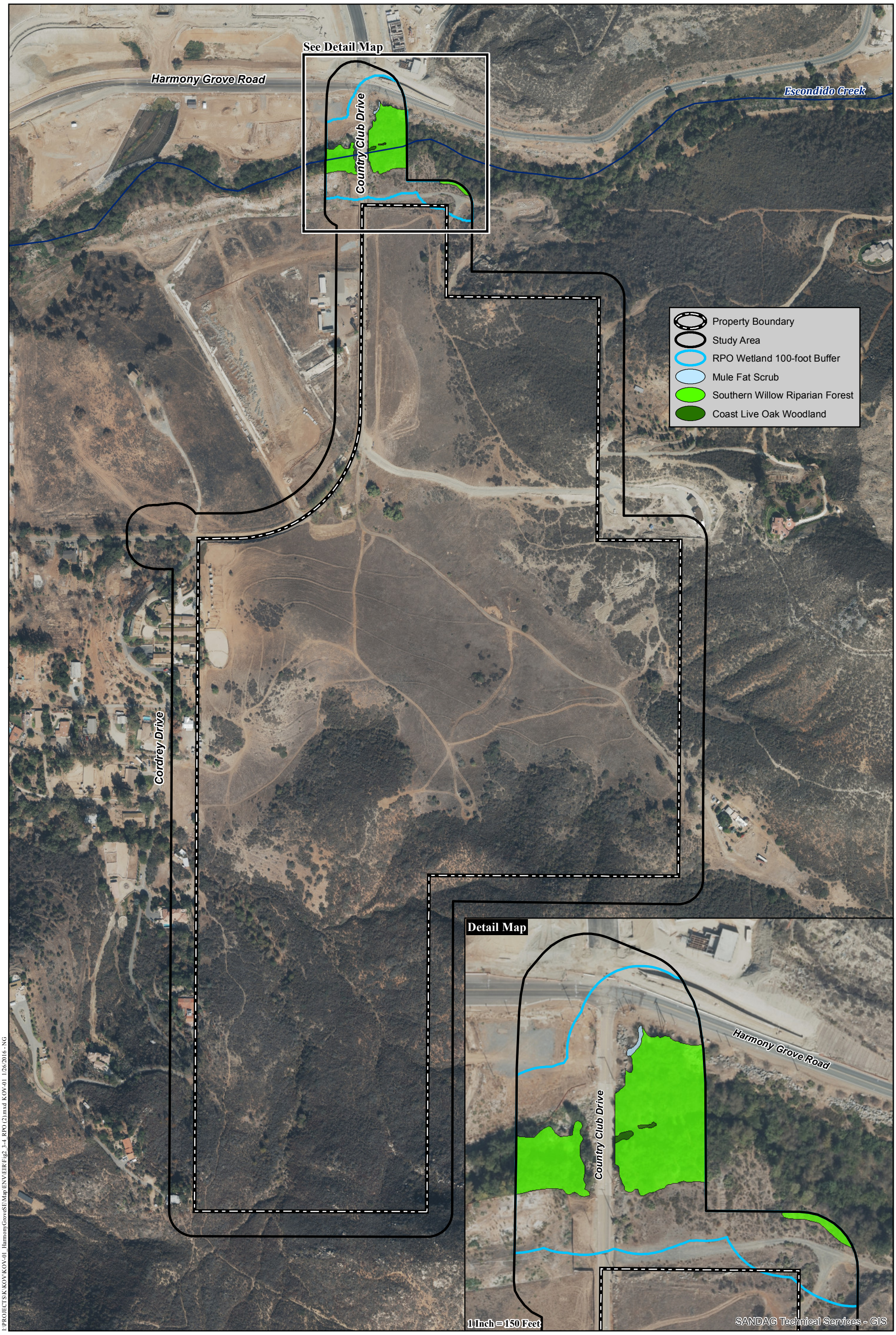
CDFW Jurisdiction

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

0 350 Feet

Figure 2.3-3



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RPO Wetlands

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 2.3-4