2.1.2 Special Status Animal Species

Special Status Animals Determined to Occupy the Site (Breeding)

The Project would result in impacts to four special status animals determined to occupy and use portions of the site for breeding and/or roosting: coastal California gnatcatcher, barn owl, yellow warbler, and yellow-breasted chat. Potential significant impacts could occur to these species if they are nesting on or in the immediate vicinity of Project impact areas. Avoidance and minimization measures are proposed to ensure no direct or indirect impacts occur to breeding individuals. Loss of occupied habitat would be fully compensated in-kind through on- and off-site preservation, as detailed in Section 3.4.

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally listed threatened, State species of special concern, and County Group 1 species. The Project would impact a total of 10.4 acres of Diegan coastal sage scrub, which generally occurs in a patchy and fragmented distribution in the northern half of the site. The stands in the southern-central and western portions of the site are of low quality and "Low Value" in accordance with the 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.

A coastal California gnatcatcher breeding pair was observed in 2014 within the eastern portions of the Intermediate Value coastal sage scrub in the eastern portion of the site. Although relatively small and fragmented, 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.

Of the total Diegan coastal sage scrub impact, 9.9 acres would be permanently impacted and 0.5 acre would be temporarily impacted and restored back to coastal sage scrub as part of a 1.8-acre restoration area, resulting in a total of 2.3 acres of coastal sage scrub preserved. Approximately 4.1 acres of impacted coastal sage scrub are considered Low Value due to the small size, vegetation composition, and fragmented arrangement of the stands. These stands are generally located in the southern-central and western portions of the site. No gnatcatchers were observed or otherwise detected in these Low Value stands and their potential to support nesting gnatcatchers is considered to be low. Impacts to these Low Value stands that are not occupied by gnatcatcher would not reduce the likelihood of survival and recovery of the species. The remaining approximately 6.3 acres of coastal sage scrub that will be impacted on site are considered Intermediate Value due to their less-fragmented arrangement and proximity to the gnatcatcher breeding pair on site. These stands are generally located in the eastern and northern portion of the site. Although less fragmented than the Low Value stands, the Intermediate Value stands are still broken by an existing paved roadway that traverses the site and other pockets of

disturbed areas. The largest, intact stand also occurs immediately adjacent to one of the rural residences to the east of the site.

The coastal sage scrub on site has a limited carrying capacity and ceiling for breeding gnatcatchers. The breeding pair was found in association with an active nest placed at the interface of Intermediate Value coastal sage scrub and chaparral along the eastern boundary 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 based on small patch size of suitable habitat, lack of constituent vegetative elements (i.e., strongly dominated by buckwheat, black sage, and chaparral constituents), 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. Impacts to breeding gnatcatchers and occupied habitat would be significant.

Gnatcatchers in the region could use other scrub- and chaparral-vegetated portions of the site and immediate vicinity for foraging, dispersal, and migration activities. Impacts to this habitat could be significant. The habitat is not vital to support a viable population of gnatcatchers in perpetuity. 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 Del Dios Highlands Preserve to the south; therefore, gnatcatcher movement functions through this area would be conserved. The Project would include thinned native habitat in fuel modification zone 2 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 be partially conserved and not completely removed along this path. Also along portions of the eastern boundary, the Project's fuel modification zones would connect with blocks of rural land further to the east that are largely undeveloped; therefore, these areas would continue to facilitate some level of gnatcatcher movement and provide access to Escondido Creek. Last, the Project would maintain open space connectivity with blocks of rural land along the southern portion of the western boundary, thereby conserving movement functions through that area.

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. In addition to the 2.3 acres of coastal sage scrub to be preserved within the 34.8-acre on-site biological open space, the project will preserve a minimum of 18.5 acres of Intermediate or High Value off-site sage scrub, occupied by coastal California gnatcatcher within biological open space, to also include recordation of a biological open space 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. To the extent available, off-site preservation shall 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, or other location deemed acceptable by the County and Wildlife Agencies. Mitigation may also include purchase of conservation and mitigation credits at

approved conservation and mitigation banks, as 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. With consideration of the on- and off-site preservation of coastal sage scrub, the project is consistent with the HLP Ordinance because each of the required findings can be made; see analysis of guidelines 7.2A, B, D, G, and J below.

The biologically superior alternative design would preserve the observed gnatcatcher nesting location in biological open space, along with additional foraging, dispersal, and north-south movement habitat along the eastern boundary of the site. In this way, adequate space and resources would remain to support the breeding pair and provide for a wider swatch of habitat to facilitate dispersal functions and north-south movement on site. The alternative would still impact a combined 7.4 acres of mostly fragmented Diegan coastal sage scrub comprised of small, isolated stands. These fragmented stands were inspected and assessed during site visits with CDFW and the County, and determined to have limited overall function and value. Nevertheless, any impact on Diegan coastal sage scrub would be a significant impact in accordance with County guidelines. However, a total of 3.5 acres of Diegan coastal sage scrub and 1.8 acres of coastal sage-chaparral habitat would be preserved under the biologically superior alternative, which in combination with additional habitat extending off site to the east, would be adequate to support the breeding territory on the site. The alternative would also improve wildlife movement along the eastern boundary by providing biological open space up to approximately 500 feet wide, including chaparral, coastal sage scrub, and coastal sage-chaparral habitat on that side of the site. There would be a narrow gap between the southern and eastern biological open space areas; however, a gap is unavoidable in order to maintain access to an adjacent residence. There is an existing dirt road and non-native grassland in that area. The alternative open space would conserve on-site habitat available for gnatcatcher movement between Del Dios Highlands Preserve and Escondido Creek. Despite the additional preservation, the alternative would not include any on-site restoration of Diegan coastal sage scrub.

Barn Owl

Barn owl is not listed or designated as a State species of special concern, but is a County Group 2 species. A single barn owl was observed roosting in a pepper tree in the central portion of the site adjacent to Country Club Drive. This individual could use the site as a permanent roost and/or nesting site. It may also forage over the site, but the site does not provide essential foraging habitat for the species. Impacts to nesting barn owl would be significant.

Yellow Warbler and Yellow-Breasted Chat

Yellow warbler and yellow-breasted chat are non-listed, but designated as State species of special concern. Yellow-breasted chat is a County Group 1 and yellow warbler is a County Group 2 species. These species were observed consistently using riparian habitat within Escondido Creek during the 2014 least Bell's vireo protocol surveys. Based on the number of times observed and suitability of the habitat, these species are considered to nest in the reach of

Escondido Creek that could be impacted by the Project. Impacts to nesting yellow warbler and yellow-breasted chat would be significant.

Special Status Animals Observed on the Site (Non-Breeding)

The Project would also result in impacts to areas that were determined to be unoccupied and not used for breeding or roosting, but evidently used for brief periods by the following four special status animals: least bell's vireo, red-shouldered hawk, green heron, and great blue heron. These species were observed on occasion foraging and/or perched in and around the Project reach of Escondido Creek.

Least Bell's Vireo

Least Bell's vireo is a federally and State endangered species and County Group 1 animal. 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. 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. The 2014 survey findings agree with other survey information obtained by HELIX within the Project reach of Escondido Creek during restoration and construction monitoring efforts as part of the Harmony Grove Village project. The habitat is moderately developed in the understory and marginal for breeding in its current state. Better quality habitat occurs and vireos could breed at off-site locations within 500 feet of the Project direct impact areas. Impacts to breeding vireo and suitable habitat would be significant.

Red-Shouldered Hawk

Red-shouldered hawk is not listed or designated as a State species of special concern, but is a County Group 1 species. 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 may also forage over the site, but the site does not provide the only foraging habitat in the local area for the species. Impacts to nesting red-shouldered hawk would be significant.

Green Heron and Great Blue Heron

Green heron and great blue heron are non-listed or designated as State species of special concern, but they are both County Group 2 species. These species were observed on a single occasion during the 2014 surveys in Escondido Creek immediately upstream of the existing low-water crossing for Country Club Drive. No nest or roost sites occur in the reach of Escondido Creek that could be impacted by the Project. The species are likely only using the reach as occasional foraging habitat. Potential impacts on these two species are limited to temporary loss of foraging habitat and would be less than significant.

In addition, four special status birds were observed flying over the site and immediate vicinity on separate occasions: white-tailed kite, peregrine falcon, turkey vulture, and western bluebird. These four species were not observed breeding or perching on the site or immediate vicinity during 2014 surveys. There is no evidence from the surveys that these species are regularly using the site or immediate vicinity for anything more than soaring and moving through the local area. These functions would be conserved by the Project and impacts are considered less than significant on these species.

2.2 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

Off-site impacts would occur to mule fat scrub, southern willow riparian forest, and coast live oak woodland associated with Escondido Creek. The Project has been designed to avoid and setback at distances greater than 100 feet from this habitat; however, improvements to the existing low-water crossing for Country Club Drive over Escondido Creek are anticipated and have been an issue for the local community for some time. The off-site 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 requirements. The impacts are 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. During high flows, the existing low-water crossing becomes breached and not possible to cross by vehicle or other means, thereby standing local residents who rely on that crossing to access Harmony Grove Road. The proposed 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 are necessary and unavoidable. Temporary impact areas would be restored. All impact areas would be compensated through on- and/or off-site establishment, re-establishment, rehabilitation, enhancement, and/or preservation. The new bridge would further improve biological functions of the riparian corridor and Creek, providing improved passage for wildlife and benefits to downstream water quality in comparison to existing conditions.

The Project has been designed to minimize impacts on sensitive upland habitats. Impacts on sensitive uplands that would require compensatory mitigation include 10.4 acres of Diegan coastal sage scrub (including disturbed), 4.5 acres of coastal sage-chaparral transition, 15.6 acres of southern mixed chaparral, 44.2 acres of non-native grassland, 0.71 acre of southern riparian forest, less than 0.01 acre of mule fat scrub, 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.

Table 5 provides a summary of Project impacts to vegetation communities/habitat types, including sensitive habitat.

Table 5
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	--
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.

The biologically superior alternative would have the same impact neutral and off-site impact values as the proposed project. On-site impacts would total 64.6 acres: 0.1 acre of coast live oak woodland, 2.7 acres of coastal sage-chaparral transition, 7.3 acres of Diegan coastal sage scrub, 3.0 acres of disturbed habitat, 8.7 acres of southern mixed chaparral, 41.1 acres of non-native grassland, 0.8 acre of non-native vegetation, and 0.8 acre of urban/developed. Thus, the alternative would impact 69.2 acres in total, compared to 82.5 acres for the proposed project.

Draft MSCP North County Plan and PAMA Discussion

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. The analysis gives regional context to the Project in light of data considered for the Draft MSCP North County Plan, including data related to proposed PAMA designations and conservation targets.

Tables 6 and 7 below summarize the results of the analysis. In this analysis, Diegan coastal sage scrub and Diegan coastal sage scrub – disturbed are equivalent to coastal sage scrub; coastal sage-chaparral transition is equivalent to coastal sage scrub/chaparral; and non-native grassland is equivalent to grassland and excludes native grassland.

Table 6
HABITAT REPORTED WITHIN DRAFT MSCP NORTH COUNTY PLAN

Vegetation Community/ Habitat Type	Total Acres in Plan Area	Total Acres in PAMA	Total Percentage in PAMA	Total Expected Conservation Percentage in Plan Area	Expected Conservation Acres in PAMA	Expected Conservation Percentage in PAMA
Diegan coastal sage scrub (32500)	29,888	23,463	79%	62%	18,439	79%
Coastal sage-chaparral transition (37G00)	5,179	4,040	78%	60%	3,129	77%
Non-native grassland (42200)	22,355	14,841	66%	48%	10,817	73%

Table 7
PROJECT HABITAT COMPARISON AGAINST DRAFT MSCP NORTH COUNTY PLAN

Vegetation Community/ Habitat Type	Existing Project Acres	Existing as Percentage of Total Acres in Plan Area	Existing as Percentage of Total Acres in PAMA	Existing as Percentage of Expected Conservation Acres in Plan Area	Project Impact Acres	Impacts as Percentage of Total Acres in Plan Area	Impacts as Percentage of Total Acres in PAMA	Impacts as Percentage of Expected Conservation in Plan Area
Diegan coastal sage scrub (32500)	10.9	0.04%	0.05%	0.06%	10.4	0.03%	0.04%	0.06%
Coastal sage-chaparral transition (37G00)	4.5	0.09%	0.11%	0.14%	4.5	0.09%	0.11%	0.14%
Non-native grassland (42200)	42.4	0.19%	0.29%	0.39%	44.2	0.20%	0.30%	0.41%

In summary, Project impacts to Diegan coastal sage scrub represent:

- 0.03 percent of the total regional Diegan coastal sage scrub identified in the Draft North County MSCP Plan area;
- 0.04 percent of the total Diegan coastal sage scrub identified in areas proposed for PAMA and therefore targeted for conservation in the Draft North County MSCP Plan area; and
- 0.06 percent of the total Diegan coastal sage scrub expected to be conserved within the Draft North County MSCP Plan area.

In summary, Project impacts to coastal sage-chaparral transition represent:

- 0.09 percent of the total regional coastal sage-chaparral identified in the Draft North County MSCP Plan area;
- 0.11 percent of the total coastal sage-chaparral transition identified in areas proposed for PAMA and therefore targeted for conservation in the Draft North County MSCP Plan area; and
- 0.14 percent of the total coastal sage-chaparral transition expected to be conserved within the Draft North County MSCP Plan area.

In summary, Project impacts to non-native grassland represent:

- 0.20 percent of the total regional non-native grassland identified in the Draft North County MSCP Plan area;
- 0.30 percent of the total non-native grassland identified in areas proposed for PAMA and therefore targeted for conservation in the Draft North County MSCP Plan area; and
- 0.41 percent of the total non-native grassland expected to be conserved within the Draft North County MSCP Plan area.

As demonstrated, the Project impacts on Diegan coastal sage scrub, coastal sage-chaparral scrub, and non-native grassland are 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. Considering these factors, Project impacts are less than significant when compared to the total amount of each habitat type reported as existing and targeted for conservation within proposed PAMA under the Draft North County MSCP Plan.

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, as included in Table 6, 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 conservation targets, as summarized within Table 8 below and demonstrated in Appendix G to this report, the Project would be consistent with the conservation goals and objectives for the Harmony Grove Core Area.

Table 8
PROJECT CONSISTENCY WITH CONSERVATION GOALS
FOR THE HARMONY GROVE CORE AREA

Conservation Goal/Target Summary	Project Consistency
Goal 1 – Protect Encinitas baccharis and wart-stem lilac, particularly dense stands.	Encinitas baccharis does not occur on site. The Project would conserve 21,150 individuals and 91% of the on-site population of 23,113 wart-stemmed ceanothus within biological open space.
Goal 2 – Minimize impacts to chaparral on mafic soils supporting sensitive plant species, such as Parry's tetracoccus.	Parry's tetracoccus does not occur on site. The Project minimizes impacts and has been specifically designed to avoid and preserve on-site stands of chaparral supporting other sensitive plant species. The chaparral on site was thoroughly analyzed and determined not to have characteristics of mafic chaparral. Nevertheless, the highest quality chaparral supporting the most abundance and diversity of sensitive species will be preserved in biological open space.
Goal 3 – Protect cliff-faces utilized by sensitive species.	Cliff face habitat does not occur on site.
Goal 4 – Protect the Escondido Creek floodplain, conserve riparian and upland habitat along Escondido Creek, and maintain natural flow regimes.	The Project has been specifically designed to protect and enhance the Escondido Creek floodplain, with avoidance buffers of 100 feet from the edge of riparian canopy protected by an additional 100 feet of limited building zone easement, for a total setback of 200 feet. The Project would enhance the biological and hydrologic function of Escondido Creek at the Country Club Drive crossing to a condition superior to what currently exists.

Table 8 (cont.)
PROJECT CONSISTENCY WITH CONSERVATION GOALS FOR THE HARMONY GROVE CORE AREA

Conservation Goal/Target Summary	Project Consistency
Goal 5 – Maintain connectivity, particularly east-west, along Escondido Creek canyon. Maintain connectivity for wildlife movement of large and medium sized mammals between preserved habitats.	The Project conserves east-west connectivity along Escondido Creek canyon by maintaining natural habitat and not further constraining widths beyond that which already exists. The Project will further remove the existing low-water crossing, improve the hydrological and biological connectivity, and result in a wider corridor. The Project conserves wildlife movement patterns for large and medium sized mammals across the southern portion of the site and within the undeveloped slopes and thinned-native habitat in fuel modification zones along the eastern boundary of the site; additional wildlife movement habitat exists within the preserved lands and rural-zoned parcels immediately east of the site to access Escondido Creek.
Goal 6 – Removal of invasive, non-native species to enhance habitat quality along Escondido Creek.	The Project includes active management of on- and off-site biological open space areas and would enhance the biological and hydrologic function of Escondido Creek.
Goal 7 – Link future preserves to create a large contiguous preserve area.	The Project contributes biological open space that is contiguous with existing core preserve area for the Del Dios Highlands Preserve and Elfin Forest Recreational Area. The Project does not substantially impact existing linkages to the east that provide connection to existing preserves along Escondido Creek and within Harmony Grove Village to the north.

The Project is proposed within an undeveloped area that connects Escondido Creek with the Del Dios Highlands Preserve and Elfin Forest Recreational Area; however, the area is already constrained by existing residential uses and connectivity of habitat that is more suitable for target species occurs within lands surrounding the site, and in particular, further to the east of the site. In addition to the on-site conservation, the Project will mitigate habitat impacts in-kind and in the Elfin Forest-Harmony Grove Community Planning Area, to the extent that mitigation land required is available.

Despite the Project's small contribution and less than significant impacts at the regional level as compared against the Draft MSCP North County Plan, Project-level impacts to sensitive upland habitat would be significant and would require compensatory mitigation. Temporary and

permanent impacts would be reduced to a less than significant level and fully compensated in-kind through on- and off-site preservation and restoration.

2.3 JURISDICTIONAL WETLANDS AND WATERWAYS

As mentioned above, unavoidable impacts would occur to riparian and wetland habitat in order to accommodate required roadway improvements at the Escondido Creek crossing and storm drain facilities along the eastern boundary of the site. These areas support jurisdictional waters and wetlands. The majority of the ground disturbance would be temporary for equipment access and staging during bridge construction. Permanent improvement areas would be limited to bridge abutments, footings, and bank stabilization; however, the riparian impact area is designated as Fuel Modification Zone 2 in the Fire Protection Plan, and is thus considered a permanent impact. Both temporary and permanent impacts to jurisdictional waters and wetlands would be significant and would require compensatory mitigation. Impacts would be reduced to a less than significant level and fully compensated in-kind through on- and/or off-site preservation and/or restoration. Specific restoration actions around the bridge will be addressed with the USACE, RWQCB, and CDFW during the permitting process and included to the extent feasible based on fuel modification requirements and other site-specific factors. Impacts to jurisdictional wetlands and waters would be the same for the Biologically Superior Alternative as for the Project.

Table 9 provides a summary of Project impacts to jurisdictional waters and wetlands.

Table 9
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**

Table 9 (cont.)
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
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.

2.4 WILDLIFE MOVEMENT AND NURSERY SITES

In the context of the Draft MSCP North County Plan and existing preserved land in the region, 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 Del Dios Highlands Preserve and Elfin Forest Recreational Reserve. Related to these are conserving access from core upland areas to the Escondido Creek corridor and conserving regional movement within Core Area associated with Del Dios Highlands Preserve and Elfin Forest Recreational Reserve. Expected wildlife movement in the local area is depicted on Figure 19.

Escondido Creek

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 at the existing low-water crossing for Country Club Drive. Wildlife movement in the study area reach of Escondido Creek would be temporarily affected during construction. The Project would result in impacts to the study area reach of Escondido Creek, which already presents a barrier to wildlife movement along the Escondido Creek corridor. The majority of the impacts would be temporary for equipment access and staging during bridge construction. Permanent impacts would be limited to bridge abutments, footings, and bank stabilization. Birds would likely be able to move unobstructed through the reach, but mammals would have to move around work areas over the duration of construction.

During construction, there would be adequate space to move around work areas to the north of the study area, across Harmony Grove Road, and into the Harmony Grove Village biological open space and water quality facility open space areas. Wildlife would also have unobstructed access around work areas by moving along the eastern boundary 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. As such, Project construction impacts on wildlife movement through Escondido Creek would be less than significant.

Upon build-out, the anticipated off-site improvements to the Country Club Drive crossing of Escondido Creek via a new bridge would have a beneficial effect on wildlife movement. The bridge is anticipated to be approximately 250 feet long, supported on abutments at its northern and southern extents, with two intermediate pier supports. The piers would be spaced at least 100 feet apart. This would provide the widest possible section without bridge supports in the portion of the Creek with running water and expected to facilitate large mammal movement. The slopes at the ends of the bridge would be protected by erosion-control measures, such as rock slope protection and revegetation to protect the abutments scour during storm events and restore riparian habitat. The bridge would be tall enough to accommodate wildlife crossings within the riparian zone and would also accommodate 100-year flood flows. For species such as mule deer, which have potential to move through the area, crossings should be designed to accommodate a minimum of 8 feet in height and a minimum openness ratio of 0.75 (Cavallaro et al. 2005). The design would accommodate this openness ratio to allow species such as mule deer free and clear access. Upon build-out, the bridge would allow unobstructed access through the Escondido Creek corridor where it crosses Country Club Drive. The post-Project bridge condition is anticipated to be superior for wildlife movement compared to the low-water crossing barrier which currently exists. The bridge would also improve water quality because pollutants from the road surface would not be swept directly downstream by high creek flows, and runoff from the road would be routed to treatment and detention facilities. On-site Project developments have been specifically designed to be setback in excess of 150 feet from all riparian habitat within Escondido Creek. As such, Project operation impacts on wildlife movement through Escondido Creek would be less than significant.

Del Dios Highlands Preserve - Elfin Forest Recreational Reserve

The Del Dios Highlands Preserve and Elfin Forest Recreational Reserve connect core habitat and regional wildlife movement between the MHCP areas to the north and the Lake Hodges Segment of the South County MSCP Subarea (County 1997) to the south. These areas serve to facilitate gnatcatcher and large mammal movement south of the study area, to and from core habitat around Lake Hodges to the east, and Elfin Forest-San Elijo Hills-Rancho La Costa areas to the west.

Intact stands of scrub and chaparral habitat in the southern portions of the Project site directly connect with off-site core habitat in the Del Dios Highlands Preserve to the south, and therefore, help contribute to the movement functions in the area. The non-native grassland on the site represents the northern terminus of the core habitat and does not contribute to movement functions for the core area because it provides no cover and relatively few resources for the species with potential to move through the area, such as mule deer and coyote (see Section 1.4.12). Although an east-west habitat connection is present through the southern portion of the Project site and further to the south, a north-south connection of core habitat between Del Dios Highlands Preserve and Escondido Creek does not exist through the site due to the large area of non-native grassland, which serves as an exposed break in the scrub and chaparral. Other breaks

in the connection include Country Club Drive and the Harmony Grove Village equestrian center. Wildlife, such as mule deer and coyote, are more likely to utilize edge habitat along the chaparral-grassland interface and existing trails through the chaparral for movement. A constrained, north-south connection of chaparral exists around the site to the east and along the eastern boundary. Areas along the eastern boundary of the site could facilitate north-south movement to and from Escondido Creek, but the habitat is patchy and partially constrained by existing residential uses. Areas further to the east of the site are less constrained, where a direct connection of scrub and chaparral habitat occurs along the West Ridge area (see Section 1.4.12).

During construction, there would be adequate space for birds and mammals to move around the site to access core habitat within Del Dios Highlands Preserve and Elfin Forest Recreational Reserve and to Escondido Creek. Birds would likely be able to move unobstructed through and around the site. Mammals, such as mule deer and coyote, would have to move around work areas into undeveloped lands in the on-site open space and off-site to the south, east and west. These undeveloped lands provide adequate travel routes to accommodate wildlife movement in the local area during construction. Mammals would have unobstructed access to nearby reaches of Escondido Creek and around work areas by moving along the eastern boundary of the Project site and through the open space to be conserved in the southern portions of the site. As such, Project construction impacts on wildlife movement within core habitat connecting Del Dios Highlands Preserve, Elfin Forest Recreational Reserve, and Escondido Creek would be less than significant.

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. As depicted on Figure 19, the Project's biological open space would be contiguous with Del Dios Highlands Preserve to the south. The connection of scrub and chaparral habitat between Del Dios Highlands Preserve and Escondido Creek would be avoided within rural/estate lots and along West Ridge to the east of the site. The on-site scrub and chaparral within biological open space and fuel modification areas of the Project is expected to retain wildlife movement functions in key areas of the site, and namely, across the southern portion and along the eastern boundary of the site. Where fuel modification would occur, only thinning of the existing native vegetation in the outermost fuel modification zone would be necessary. Areas to be thinned in fuel modification zone 2 along the eastern boundary of the site would still provide some wildlife movement function. Similarly, the east-west connection of scrub and chaparral habitat through the southern portion of the site would be conserved. The Project would also include restoration of temporary impact areas in the southern portion of the site to Diegan coastal sage scrub, providing additional function for birds, including coastal California gnatcatcher, and replacing some of the edge and ecotonal habitat that will be impacted. The restored areas would then be included in the biological open space. The trail improvements along the Elfin Forest Trail in the southern open space area are not expected to substantially impact wildlife movement since the trail is already in use by the public and would not bring people into a new area. The finished trail width would be no more than 4-6 feet wide, the surface would be native soil, and impacts would be minimized to the maximum extent practicable during trail design and construction. Project developments have been setback and buffered a minimum 100 feet from on- and off-site open space areas that function to accommodate wildlife movement in the local area. Project-related lighting would be required to adhere to Division 9 of the San Diego County Light Pollution Code. 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. As such, Project operation impacts on wildlife movement between Del Dios Highlands Preserve, Elfin Forest Recreational Reserve, and Escondido Creek would be less than significant.

The biologically superior alternative would provide better wildlife movement between Del Dios Highlands Preserve and Escondido Creek by providing biological open space up to 500 feet wide along the eastern site boundary, including the majority of the chaparral, coastal sage scrub, and coastal sage-chaparral habitat on that side of the site. The alternative would not include restoration of graded slopes on the south side of the site.

2.5 INDIRECT IMPACTS

Potential significant indirect impacts may occur as a result of Project implementation, as described further below.

Noise

Construction-related noise from such sources as clearing, grading, and potential blasting and pile driving would be a temporary impact to wildlife. Breeding birds and mammals may temporarily or permanently leave their territories to avoid disturbances from construction activities, which could lead to reduced reproductive success and increased mortality. Potential short-term noise impacts could result from construction for the proposed Project. Noise effects would be considered significant if construction noise levels exceed a level of 60 dB L_{eq} hourly average or ambient adjacent to sensitive bird species, including raptors.

Human Access

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. There is currently no open space management at the site and it is subject to human access and related disturbances. The Project would include preparation and approval of a Resource Management Plan, non-wasting endowment, open space management in perpetuity, and other protective measures, such as fencing and signage. With proper implementation of open space management elements for the Project, habitat degradation and effects on sensitive species in open space areas are not expected and impacts would be less than significant.

Domestic Predators

The 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.

Exotic Plant Species

Non-native plants could colonize areas disturbed by construction and development and could potentially spread into adjacent native habitats. Many non-native plants are highly invasive and can displace native vegetation (reducing native species diversity), potentially increase flammability and fire frequency, change ground and surface water levels, and potentially adversely affect native wildlife dependent on native plant species. There is currently no open space management at the site and it is subject to disturbances from exotic plant species from nearby sources. As mentioned above, the Project would include active open space management to control non-native exotic and invasive species. Further, as required, non-native invasive plants and exotics would be strictly prohibited from the Project's landscaping. With proper implementation of open space management elements for the Project, the establishment and spread of exotic plant species would be controlled and impacts would be less than significant.

Lighting

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, resulting in a potentially significant impact.

3.0 SPECIAL STATUS SPECIES

3.1 GUIDELINES FOR DETERMINING SIGNIFICANCE

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the USFWS or CDFW?

Any of the following conditions would be considered significant if:

A. The project would impact 1 or more individuals of a species listed as federally or state endangered or threatened.

B. The project would impact an on-site population of a County List A or B plant species, or a County Group 1 animal species, or a species listed as a state Species of Special Concern.

C. The project would impact the local long-term survival of a County List C or D plant species or a County Group 2 animal species.
D. The project may impact arroyo toad aestivation, foraging, or breeding habitat.

E. The project would impact golden eagle habitat.

F. The project would result in a loss of functional foraging habitat for raptors.

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

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

I. The project would impact occupied burrowing owl habitat.

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

K. The project would impact occupied Hermes copper butterfly habitat.

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

- 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

3.2 ANALYSIS OF PROJECT EFFECTS

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

A. The project would impact 1 or more individuals of a species listed as federally or state endangered or threatened.

Coastal California Gnatcatcher

The Project would impact 10.4 acres of Diegan coastal sage scrub, including 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 and fragmentation of 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. Impacts to breeding gnatcatchers; occupied habitat; and foraging, migration and dispersal habitat would be significant.

Of the 10.4 acres of coastal sage scrub that will 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 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 1.4.12, 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 to. As also described above, movement functions along the eastern edge of the site will 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 the avoidance, minimization, and compensatory mitigation measures addressed herein and will include detailed information about the specific type(s) and location(s) for the mitigation. Avoidance and minimization measures are proposed herein to ensure that Project construction does not result in adverse direct or indirect impacts on any gnatcatcher individuals. Compensatory mitigation measures are also proposed herein 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 will be preserved, along with an additional 0.5 acre, for a total of 2.3 acres of preserved coastal sage scrub within biological open space for the Project (Figure 17). 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 through one or a combination of the following: (1) recordation of a biological open space 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 shall 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, or other location deemed acceptable by the County and Wildlife Agencies.

The project as a whole will 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. With consideration of the on- and off-site preservation of coastal sage scrub, the project is consistent with the HLP Ordinance because each of the required findings can be made; see analysis of guidelines 7.2A, B, D, G, and J below.

The alternative would impact a combined 7.4 acres of mostly fragmented Diegan coastal sage scrub habitat, but would avoid much of the Intermediate Value habitat where a coastal California gnatcatcher breeding pair was observed in 2014 and provide for a wider swatch of habitat to facilitate dispersal functions and north-south movement on site. A total of 3.5 acres of coastal sage scrub and 1.8 acres of coastal sage-chaparral habitat would be preserved, which in combination with additional habitat extending off site to the east, would be adequate to support the gnatcatcher breeding territory following project development. The observed breeding location was on the boundary between coastal sage scrub and chaparral, meaning that the southern mixed chaparral and coastal sage-chaparral transition in the immediate vicinity would likely be used by the breeding pair as well. Similar to the proposed Project, developments would be set lower than the habitat area, minimizing the potential for noise, light and invasive species to enter the open space. The open space would be separated from the homes by cut slopes that would discourage the residents from approaching the open space, which would be protected by fencing and signage. Along portions of the east side, there would also be a road separating the residential area from the open space. Therefore, the alternative would not impact the gnatcatcher breeding territory, but impacts to habitat would still be significant. With the alternative, the graded slopes on the south side of the site would

be planted for erosion control, but would not be restored to Diegan coastal sage scrub or included in biological open space.

Least Bell's Vireo

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. The 2014 survey findings agree with other survey information obtained by HELIX within the Project reach of Escondido Creek during restoration and construction monitoring efforts as part of the Harmony Grove Village project. The direct impact areas of the project would not be expected to support a significant population of vireos due to the small amount and low quality of the habitat being impacted. Direct impacts of the Project are anticipated to be limited to temporary loss of vireo habitat. Vireos are known to occur within other reaches of Escondido Creek, including better quality habitat located further upstream and downstream of the site. Better quality habitat occurs and vireos could breed at off-site locations within 500 feet. Direct impacts to vireo habitat and indirect impacts to nesting vireos within 500 feet of construction areas would be significant.

Avoidance and minimization measures are proposed herein to ensure that Project construction does not result in adverse direct or indirect impacts of any least Bell's vireo individuals. The Project proposes a new bridge over Escondido Creek and will include restoration and improved connectivity of riparian habitat for vireo and other species. Any additional compensatory mitigation required to offset Project impacts will include one or a combination of the following: (1) biological open space easement, RMP implementation, and long-term management of land containing occupied least Bell's vireo habitat as approved by the County; and/or (2) purchase of occupied riparian habitat credits from a mitigation bank as approved by the County. To the extent possible, mitigation will occur within PAMA and in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion, or other location deemed acceptable by the County.

B. The project would impact an on-site population of a County List A or B plant species, or a County Group 1 animal species, or a species listed as a state Species of Special Concern.

Summer Holly and Wart-Stemmed Ceanothus

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-footwide 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. Project impacts on summer holly and wart-stemmed ceanothus would be considered significant.

The County requires that species-based mitigation be provided for List A and List B plant species. Mitigation at a 2:1 or 3:1 ratio for List A species shall be provided, depending on the sensitivity of the affected population (County 2010b). Mitigation at a minimum 1:1 ratio

shall be provided for List B species (County 2010b). The Project would preserve 21 summer holly and the major population of 21,150 wart-stemmed ceanothus in on-site biological open space, to include protection within a biological open space easement, RMP implementation, and long-term management. The mitigation equates to a 3:1 mitigation ratio for summer holly and a nearly 11:1 ratio for wart-stemmed ceanothus. With the implementation of this mitigation, impacts would be less than significant.

The biologically superior alternative would impact five individuals of summer holly, and 1,845 wart-stemmed ceanothus, not including the trail easement. Impacts would be reduced, but still significant. Additional summer holly and wart-stemmed ceanothus would be conserved within biological open space, including easement, RMP, and long-term management. With the implementation of this mitigation, impacts would also be less than significant.

Red-Shouldered Hawk

A single red-shouldered hawk was observed perching in a tree near Escondido Creek during one of the biological surveys in 2014. This species is not likely to nest on site due to lack of suitable trees and woodland habitat. However, this species could nest at off-site locations within 500 feet of Project impact areas. It may also forage over the site, but the site does not provide essential foraging habitat for the species. Loss of foraging habitat and indirect impacts to nesting red-shouldered hawk within 500 feet of construction areas would be significant.

Yellow-Breasted Chat

In addition, 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 times observed and suitability of the habitat, this species has a high potential to nest in the reach of Escondido Creek that could be impacted by the Project. Impacts to nesting yellow-breasted chat would be significant.

Project impacts to other County Group 1 species are addressed above within County Guideline 3.2.A.

C. The project would impact the local long-term survival of a County List C or D plant species or a County Group 2 animal species.

Barn Owl

The Project could impact barn owl, which is a County Group 2 species that has the potential to use the site for roosting and/or nesting. It may also forage over the site, but the site does not provide essential foraging habitat for the species. Loss of foraging habitat and impacts to nesting barn owl would be significant.

Southwestern Spiny Rush and Ashy Spike-Moss

The Project would result in less than significant impacts to southwestern spiny rush and ashy spike-moss, 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 and would be less than significant.

Green Heron and Great Blue Heron

The Project would also result in less than significant impacts to green heron and great blue heron, both County Group 2 animals that have the potential to temporarily forage within Escondido Creek. The fact that these species were observed only once during the 2014 surveys suggests 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. Last, impacts at Escondido Creek would be largely temporary. Foraging habitat would exist under post-project conditions because the Project would restore the riparian habitat impacted at the Escondido Creek crossing. Impacts to riparian habitat that is suitable for both species will further be offset through compensatory mitigation, as acquisition, preservation, and/or purchase of mitigation bank credits, similar to that discussed above for least Bell's vireo. Therefore, the Project is not expected to affect the long-term survival of these two herons and the impacts would be reduced to less than significant with the implementation of the compensatory mitigation measures proposed herein.

Yellow Warbler

In addition, the Project would result in the loss of potential nesting and foraging habitat for yellow warbler, which is designated as State species of special concern and County Group 2 species. Based on the number of times observed and suitability of the habitat, this species has a high potential to nest in the reach of Escondido Creek that could be impacted by the Project. Impacts to nesting yellow warbler would be significant.

Impacts to riparian habitat that is suitable for this species will be offset through compensatory mitigation, as acquisition, preservation, and/or purchase of mitigation bank credits, similar to that discussed above for least Bell's vireo and heron species. Impacts would be reduced to less than significant with the implementation of the compensatory mitigation measures proposed herein.

F. The project would result in a loss of functional foraging habitat for raptors.

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. Other raptors have the potential to forage over the site. The Project would result in the loss of sparse scrub and grassland habitat that provides foraging habitat for these raptors. Impacts would be significant.

Impacts to non-native grassland and sparse scrub that provides suitable foraging habitat for raptors will be offset through compensatory mitigation, as acquisition, preservation, and/or purchase of conservation bank credits. The impacts would be reduced to less than significant with the implementation of the compensatory mitigation measures proposed herein.

L. The project would impact nesting success of coastal California gnatcatcher, least Bell's vireo, and tree-nesting raptors through grading, clearing, fire fuel modification, and/or other noise generating activities such as construction.

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, grading, and blasting 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 ft of the impact area, or coastal California gnatcatchers are nesting within 300 ft of the impact area, effects resulting from construction noise would be significant.

The Project would not result in significant impacts under the above guidelines for the following reasons:

D. The project would not impact arroyo toad aestivation, foraging, or breeding habitat.

The site contains no habitat suitable for the arroyo toad. The species is believed to have been extirpated from the local area. The Project reach of Escondido Creek and the unnamed ephemeral tributaries on site do not provide suitable habitat for arroyo toad.

E. The project would not impact golden eagle habitat.

The nearest known historic golden eagle nest is approximately 1.5 miles to the south of the Project site. However, 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 would occur to golden eagle or its habitat.

G. The project would not 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.

The Project site is contiguous with the Del Dios Highlands Preserve and additional open space to the general south and east. This general area is identified as a core area in North County and under the Draft MSCP North County Plan. As such, the site is part of a core wildlife area of 500 acres of wildlife habitat or more. 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 habitat to the core area through the establishment of permanent on-site biological open space. Impacts would occur to chaparral and scrub habitat, but the Project's biological open space will conserve and restore these habitat types. The existing grassland-chaparral interface and chaparral edge areas will be impacted, but the Project will include interface and edge areas within thinned native vegetation fuel modification zones and along the boundaries of biological open space. The biological open space 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. A biological open space easement will be placed over the on-site open space and a RMP will be implemented, to include long-term management and preservation in perpetuity. Therefore, with the establishment of the on-site open space preserve and implementation of long-term management, the project would not significantly impact the viability of a core wildlife area.

H. The project would not cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term.

The Project site abuts existing preserve areas, large blocks of core habitat, and/or undeveloped lands to the general northeast, south, and east, including Escondido Creek Open Space and Del Dios Highlands Preserve. The Project proposes to place on-site habitat that connects with off-site core habitat into permanent biological open space. Potentially significant indirect impacts to sensitive species resulting from human access, domestic animals, exotic species, and lighting would be avoided through the following Project design features: (1) permanent fencing shall be installed around biological open space, which is currently unprotected, and signs precluding access shall be posted; (2) only non-invasive plant species would be 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]); and (3) all project-related lighting would be required to adhere to Division

9 of the San Diego County Light Pollution Code. 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. A biological open space easement will be placed over the on-site open space and a RMP will be implemented, to include long-term management and preservation in perpetuity. The RMP will include specific management directives for control and prevention of indirect impacts during Project operation, which will be implemented in perpetuity as part of the long-term management requirements. Therefore, no significant impact to sensitive species resulting from indirect impacts from human access, domestic animals, exotic species, or lighting would occur over the long term. Potential indirect impacts from construction noise are discussed under Guideline 3.1.L.

I. The project would not impact occupied burrowing owl habitat.

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.

J. The project would not impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

The Project site does not contain suitable habitat for the coastal cactus wren. This species was not observed or otherwise detected during 2014 biological surveys. The Project would have no impact on cactus wren.

K. The project would not impact occupied Hermes copper butterfly habitat.

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. The Project would have no impact on occupied Hermes copper habitat.

3.3 CUMULATIVE IMPACT ANALYSIS

The area of consideration for cumulative impacts on biological resources was based on an approximate 3.0-mile radius from the Project site, including the foothills to the north and northeast of the site and extending south to the northern edge of Olivenhain Reservoir (Figure 20). The cumulative study area also extends slightly beyond Interstate 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 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 10). Of these 21 cumulative projects, eight 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. 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 foraging habitat), as discussed below.

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. The biologically superior alternative would impact 7.4 acres of coastal sage scrub, which would be a lesser contribution to the significant cumulative impact on coastal California gnatcatcher.

Additional analysis is provided above in Section 2.2 of the proposed Project's impacts on coastal sage scrub compared to the much larger cumulative area of the Draft MSCP North County Plan. As summarized in Tables 6 and 7, Project impacts to Diegan coastal sage scrub represent: 0.03 percent of the total regional Diegan coastal sage scrub identified in the Draft North County MSCP Plan area; 0.04 percent of the total Diegan coastal sage scrub identified in areas proposed for PAMA and therefore targeted for conservation in the Draft North County MSCP Plan area; and 0.06 percent of the total Diegan coastal sage scrub expected to be conserved within the Draft North County MSCP Plan area. In the context of the much larger cumulative area of the Draft MSCP North County Plan, Project impacts are less than significant when compared to the total amount of each habitat type reported as existing and targeted for conservation within proposed PAMA under the Draft North County MSCP Plan.

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 2:1 ratio through a combination of on- and off-site preservation of occupied habitat. 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 and 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,

Property Boundary

3.5-mile Buffer

County of San Diego

1. Montiel Heights/Montiel Road Townhouses
2. Harmony Grove Village
3. Valiano

City of San Marcos

4. Marketplace @ Twin Oaks
5. Citywide Channel Maintenance Programmatic Permit
6. Candera
7. University District Specific Plan
8. Kaiser Medical Office Building
9. Leigh Hanson Site
10. Campus Pointe II
11. Rancho Coronado Phase I School Site

City of Escondido

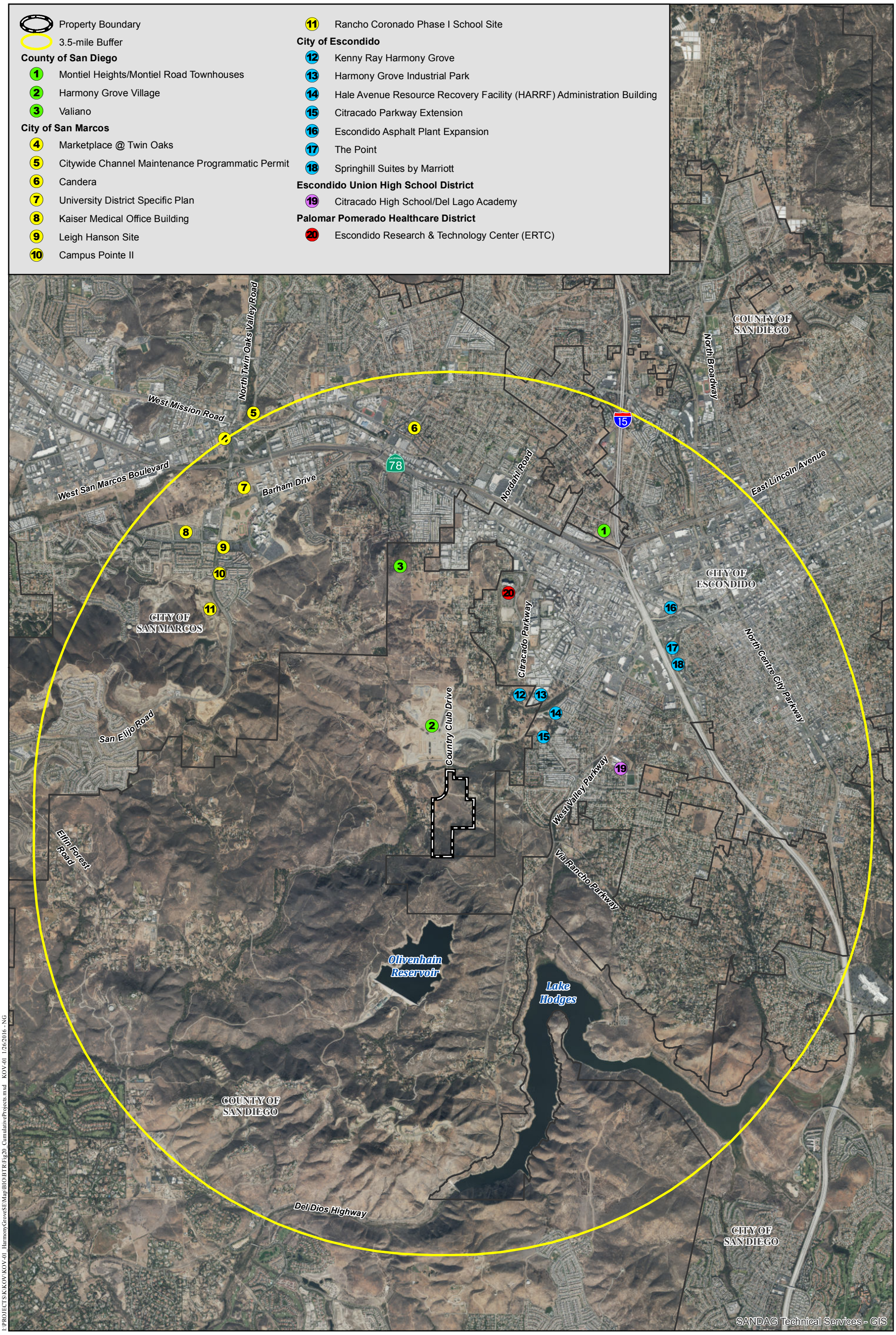
12. Kenny Ray Harmony Grove
13. Harmony Grove Industrial Park
14. Hale Avenue Resource Recovery Facility (HARRF) Administration Building
15. Citracado Parkway Extension
16. Escondido Asphalt Plant Expansion
17. The Point
18. Springhill Suites by Marriott

Escondido Union High School District

19. Citracado High School/Del Lago Academy

Palomar Pomerado Healthcare District

20. Escondido Research & Technology Center (ERTC)



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Biological Cumulative Study Area

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 4,100 Feet

Figure 20

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 to provide 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 that could be used by foraging raptors. Therefore, the proposed Project would contribute to significant cumulative impacts to raptors. Additional analysis is provided above in Section 2.2 of the proposed Project's impacts on non-native grassland compared to the much larger cumulative area of the Draft MSCP North County Plan. As summarized in Tables 6 and 7, Project impacts to non-native grassland represent: 0.20 percent of the total regional non-native grassland identified in the Draft North County MSCP Plan area; 0.30 percent of the total non-native grassland identified in areas proposed for PAMA and therefore targeted for conservation in the Draft North County MSCP Plan area; and 0.41 percent of the total non-native grassland expected to be conserved within the Draft North County MSCP Plan area. In the context of the much larger cumulative area of the Draft MSCP North County Plan, Project impacts are less than significant when compared to the total amount of each habitat type reported as existing and targeted for conservation within proposed PAMA under the Draft North County MSCP Plan.

In accordance with County guidelines and required mitigation ratios, the proposed Project would mitigate for these impacts at a 0.5:1 ratio through the purchase of credits and/or off-site preservation of 22.1 acres of non-native grassland/raptor foraging habitat for impacts to non-native grassland. Based on HELIX's biological survey observations, the on-site grassland does not appear to constitute essential foraging habitat for resident and migratory raptors. With the implementation of mitigation, the Project's contribution to significant cumulative impacts to raptors based on loss of non-native grassland would be less than considerable, and reduced to a less than significant level.

Impacts on sensitive habitat used by sensitive species 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 to the cumulative impact to less than significant levels.

Table 10
CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

PROJECT NUMBER†	PROJECT NAME	RESOURCE*									
		Riparian/ Wetland		CLOW		CSS		SMC		NNG	
		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	--	--	--	--	--	--	--	--	--	--

Table 10 (cont.)
CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

PROJECT NUMBER†	PROJECT NAME	RESOURCE*									
		Riparian/ Wetland		CLOW		CSS		SMC		NNG	
		Impacts (I)	Mitigation (M)	I	M	I	M	I	M	I	M
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
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**	**218.8**	**138.6**
--	Harmony Grove Village South Project	0.72	2.13	0.2	0.6	10.4	20.8	15. 6	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**

*CLOW=coast live oak woodland, CSS=coastal sage scrub, SMC=southern mixed chaparral, NNG=non-native grassland
†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.

3.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

M-BI-1a Prior to issuance of a grading permit, the Project applicant shall preserve 34.8 acres of on-site biological open space (BOS) determined to support sensitive species and habitat functions and values contiguous with the Del Dios Highlands Preserve 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 (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) 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 biological open space 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 – 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-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 biological open space 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.

3.5 CONCLUSION

Project implementation could result in significant impacts to County List A plants, County List B plants, County Group 1 animals, County Group 2 animals, and raptors with the potential to nest and/or forage over the site and immediate vicinity. Potential significant impacts could result from direct disturbance, loss of habitat, and noise. Implementation of mitigation measures **M-BI-1a** through **M-BI-4** would reduce impacts to less than significant.

4.0 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

4.1 GUIDELINES FOR DETERMINING SIGNIFICANCE

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the USFWS or CDFW?

Any of the following conditions would be considered significant if:

A. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5 in the County Guidelines for Determining Significance [County 2010b], excluding those without a mitigation ratio) on or off the Project site.

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

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

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

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

4.2 ANALYSIS OF PROJECT EFFECTS

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

A. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5 in the County Guidelines for Determining Significance [County 2010b], excluding those without a mitigation ratio) on or off the Project site.

Sensitive Wetland Habitat

If the Project is first in time relative to implementing County plans for a bridge over Escondido Creek, 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 associated with Escondido Creek. These impacts would be significant.

The Project has been designed to avoid and setback from this habitat; however, improvements to the existing low-water crossing for Country Club Drive over Escondido Creek are anticipated to allow safe access for the Project and resolve a long-standing issue for the local community. The off-site 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 maintenance. The impacts are 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. Water quality would be improved since pollution would not wash directly into the creek. The proposed 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 are necessary and unavoidable. Nonetheless, unavoidable impacts would be significant.

Sensitive Upland Habitat

Impacts on sensitive uplands requiring 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. Impacts would be significant. An effort has been made in the design to minimize impacts to sensitive upland habitat and target development in the least sensitive areas. Project development has been sited immediately up against the larger Harmony Grove Village development to the north and northwest. It has also concentrated to reduce footprint and minimize edge effects. To offset some of the impacts to sensitive uplands, the Project proposes 34.8 acres of biological open space that will support the following resources and functions, following restoration: 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. The open space 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.

Nonetheless, unavoidable impacts to all sensitive uplands would be significant.

B. The following would occur to or within jurisdictional wetlands and/or riparian habitats as defined by the USACE, CDFW, and County: vegetation removal; grading; diversion of water flow; placement of fill; placement of structures; road crossing construction; placement of culverts; disturbance of the substratum; and activities that may cause an adverse change in native species composition, diversity, and abundance.

As addressed under County Guideline 4.1.A, the Project would 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. Improvements to the existing low-water crossing for Country Club Drive over Escondido Creek are considered unavoidable. The County has a request for proposals prepared for this improvement. The Project would also result in on-site impacts to 0.02 acre of natural 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 waters of the U.S/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. These impacts would be considered significant.

The Project would not result in significant impacts under the above guidelines for the following reasons:

C. The project would not 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.

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

D. The project would not cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term.

The Project would not result in indirect impacts from the spread of non-native plant species. 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 would be 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]). No significant impact would occur.

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

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 site. 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, 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. No significant impact would occur.

4.3 CUMULATIVE IMPACT ANALYSIS

The Project would contribute to the cumulative impact on sensitive wetland and upland communities. Additional analysis is provided above in Section 2.2 of the proposed Project's impacts on coastal sage scrub, coastal sage-chaparral, and non-native grassland compared to the much larger cumulative area of the Draft MSCP North County Plan (Tables 6 and 7).

In the context of the much larger cumulative area of the Draft MSCP North County Plan, Project impacts are less than significant when compared to the total amount of each habitat type reported as existing and targeted for conservation within proposed PAMA under the Draft North County MSCP Plan. Nonetheless, 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 credits at approved conservation and mitigation banks, such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, 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.

On- and off-site preservation shall include recordation of a biological open space 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. To the extent the land is available for mitigation, 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, or other location deemed acceptable by the County and Wildlife Agencies.

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.

4.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

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 a biological open space 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-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-5a and M-BI-6c, above.

4.5 CONCLUSION

The Project would result in significant impacts to sensitive natural communities; however, a combination of avoidance through Project design, proposed biological open space, and mitigation measures to fully compensate the loss of habitat would reduce impacts to below a level of significance. Mitigation is proposed at ratios consistent with those required by the County, Wildlife Agencies, and Resource Agencies. With the implementation of mitigation measures **M-BI-1a**, **M-BI-1b**, **M-BI-1c**, **M-BI-2b**, and **M-BI-5a** through **M-BI-8**, impacts on sensitive natural communities would be reduced to less than significant.

5.0 JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 GUIDELINES FOR DETERMINING SIGNIFICANCE

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?

5.2 ANALYSIS OF PROJECT EFFECTS

As previously stated, the Project would result in unavoidable impacts to 0.31 acre of wetland waters of the U.S. subject to the regulatory jurisdiction of the USACE pursuant to Section 404 of the CWA. The impacts would be primarily temporary for equipment access and staging during bridge construction. Permanent impacts would be limited to bridge abutments, footings, and bank stabilization. The impacts are 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. The proposed 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 are considered unavoidable. The Elfin Forest Trail crossings on the western edge of the project site will be designed to avoid impacting waters of the U.S. Impacts to 0.31 acre of USACE-jurisdictional wetland shall be mitigated at a 3:1 ratio as described in **M-BI-6a**.

5.3 CUMULATIVE IMPACT ANALYSIS

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.

5.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

No additional mitigation is required.

5.5 CONCLUSION

The Project would result in significant impacts to federally protected wetlands. Mitigation measures are proposed to fully compensate the loss and reduce impacts to below a level of significance. Mitigation is proposed at ratios consistent with those required by the County and Resource Agencies. With the implementation of mitigation measure **M-BI-6a**, impacts on federally protected wetlands would be less than significant. Notification for securing necessary wetland permits prior to issuance of a grading permit is a regulatory requirement. Anticipated wetland permits include a CWA Section 404 permit from the USACE, CWA Section 401 Water Quality Certification or State Porter-Cologne Water Quality Control Act Waste Discharge requirements from the RWQCB, and CFG Code Section 1602 Streambed Alteration Agreement from CDFW. Final mitigation requirements would be determined through consultation with the USACE, RWQCB, and CDFW.

6.0 WILDLIFE MOVEMENT AND NURSERY SITES

6.1 GUIDELINES FOR DETERMINING SIGNIFICANCE

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Any of the following conditions would be considered significant if:

A. The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

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

C. The project would create artificial wildlife corridors that do not follow natural movement patterns.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

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

F. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkage.

6.2 ANALYSIS OF PROJECT EFFECTS

The Project would not result in significant impacts under the above guidelines for the following reasons:

A. The project would not impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

The Project would 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.

Existing wildlife movement functions on and in the vicinity of the site are discussed in detail within Section 1.4.12 of this report. Figure 19 depicts expected wildlife movement patterns in the local area based primarily on a general assessment of habitat connectivity, topography, and the bird and large mammal species expected to move through the area. 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 Del Dios Highlands Preserve and Elfin Forest Recreational Reserve. Related to these are conserving regional movement within core area associated with Del Dios Highlands Preserve and Elfin Forest Recreational Reserve, 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 Harmony Grove Village open space areas. Wildlife would also 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. 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 accommodate a minimum openness ratio of 0.75 to allow species such as mule deer and coyote free and clear access. 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 Del Dios Highlands Preserve and Elfin Forest Recreational Reserve, and to and from Escondido Creek and Harmony Grove Village open space. Birds would be able to move unobstructed through the Project's open space (both biological open space and other open space areas proposed by the Project) and the undeveloped lands around the site. Although a single pair was confirmed on site during 2014 surveys, the habitat is not vital to support a viable population of gnatcatchers in perpetuity. The closest known gnatcatcher occurrences to the site are within the Harmony Grove Village 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 Harmony Grove Village open space does not support a critical population of gnatcatchers. The Project would not impede the ability for gnatcatchers to disperse to and from the Harmony Grove Village 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 Del Dios Highlands Preserve to the south; therefore, gnatcatcher movement functions through this area would be conserved. The Project would further maintain partial connectivity of thinned native vegetation with adjacent preserved habitat along portions of the northern and eastern boundaries, connecting with Escondido Creek Conservancy-owned lands. Therefore, gnatcatcher movement functions through this area would also be conserved. The Project abuts large blocks of rural land further to the east that are largely undeveloped. Habitat within these properties to the east is not preserved from activities like landscaping and agriculture, but is also not expected to be developed with additional homes in the future based on zoning, density, and steep slope restrictions. Therefore, these areas would continue to facilitate 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.

Mammals with potential to move through the area, such as mule deer and coyote (see Section 1.4.12), would have unobstructed access to the Project's biological open space 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 Del Dios Highlands Preserve and Elfin Forest Recreational Reserve. Access to Escondido Creek is already partially constrained by four 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. As depicted on Figure 19, the Project is sited at the southern terminus of the larger Harmony Grove Village and the Project's biological open space would be contiguous with the Del Dios Highlands Preserve 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 biological open space, undeveloped areas included in the Project's fuel modification zones (irrigated zone 1, thinned native zone 2) will abut the Escondido Creek Open Space to the north, conserving contiguity and functionality of habitat in that area.

The Project's development footprint abuts the boundary of Harmony Grove Village, such that the overall development in the local area is consolidated and the edge effect is minimized. The construction of the Harmony Grove Village 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 Harmony Grove Village 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.

The connection of scrub and chaparral habitat between Del Dios Highlands Preserve and Escondido Creek would be conserved through habitat areas on rural/estate lots 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 will 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 will be minimized due to shielding 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. The on-site developments have also been specifically designed to be setback in excess 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 San Diego County Light Pollution Code. 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 Del Dios Highlands Preserve, Elfin Forest Recreational Reserve, and Escondido Creek would be less than significant.

With the biologically superior alternative, open space connectivity on the south side of the site would be substantially the same, except that graded slopes outside of the required fuel modification zone would be revegetated and maintained as a landscaped slope instead of being restored to Diegan coastal sage scrub and maintained as biological open space. The alternative would improve wildlife movement along the eastern boundary by providing biological open space up to 500 feet wide, including chaparral, coastal sage scrub, and coastal sage-chaparral habitat on that side of the site. There would be a narrow gap between the southern and eastern biological open space areas; however, a gap is unavoidable in order to maintain access to an adjacent residence. There is an existing dirt road and non-native grassland in that area. The vegetated slopes on the east side of the project site provide daytime cover for mammals and foraging habitat for gnatcatchers, making them more useful for wildlife movement than the grassland in the middle of the site. By preserving those slopes in biological open space, the alternative would enhance gnatcatcher movement between Del Dios Highlands Preserve and Escondido Creek, relative to the proposed Project.

B. The project would not substantially interfere with connectivity between blocks of habitat and would not potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

As addressed above, the Project would not substantially interfere with connectivity between Del Dios Highlands Preserve, Elfin Forest Recreational Reserve, and Escondido Creek. The Project would contribute 34.8 acres of biological open space preserve to the existing Del Dios Highlands Preserve and Elfin Forest Recreational Reserve 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's development footprint abuts the boundary of Harmony Grove Village, such that the overall development in the local area is consolidated and the edge effect is minimized. The Project minimizes edge effect by hugging up against Harmony Grove Village and existing

residential 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. Impacts would be less than significant.

C. The project would not create artificial wildlife corridors that do not follow natural movement patterns.

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. Thinned native habitat within fuel modification zone 2 would also exist along the eastern boundary providing some functionality for wildlife movement. Similarly, the Project would not create an artificial corridor for mammals. As address 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 for the mammals expected to occur in the area, such as mule deer and coyote (see Section 1.4.12). Adequate space and connectivity of habitat would remain in the local area, as depicted on Figure 19. Local and regional movement functions would continue further to the east of the site, as well as further to the south and in the southern portions of the site. 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 not create an artificial corridor, but instead, would widen the corridor and enhance the corridor functions. On-site Project developments are 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 biological open space 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 Light Pollution Code 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 would be less than significant.

D. The project would not 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.

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 water treatment facility (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 San Diego County Light Pollution Code. 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. Additionally, developments have been setback and buffered from Escondido Creek, on-site biological open space, and adjacent undeveloped

lands. No significant impact to wildlife corridors or linkages resulting from lighting or noise would occur.

E. The project maintains an adequate width for an existing wildlife corridor or linkage and would not 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, or placement of barriers in the movement path.

The Project maintains 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 biological open space and other undeveloped upland habitat on and adjacent to the site. The linkage of scrub and chaparral habitat between Del Dios Highlands Preserve and Escondido Creek would be conserved along the eastern boundary of the site and further to the east. As depicted on Figure 19, 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 Del Dios Highlands Preserve 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 would be maintained along the entirety of the eastern boundary, all of which would be vegetated with native species. Habitat that links the Project site to Del Dios Highlands Preserve and Elfin Forest Recreational Area further to the south would also be conserved. The Project would contribute 34.8 acres of biological open space preserve to the existing Del Dios Highlands Preserve and Elfin Forest Recreational Reserve 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. Impacts would be less than significant.

The alternative would improve corridor function relative to the proposed Project by preserving vegetated slopes on the east side of the site that could be used by gnatcatchers and mammals to move between Del Dios Highlands and Escondido Creek. Preserving those slopes gives wildlife the option to move either west or east around the homes to the east of the site. The corridor would be about 1,200 feet wide at the narrowest point, versus 1,000 feet with the proposed Project.

F. The project maintains adequate visual continuity (i.e., long lines-of-site) within wildlife corridors and linkage.

The Project would not impair visual continuity within corridors or linkages in the local area. Figure 19 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 Del Dios Highlands Preserve 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-site. 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 biological open space in the southern portions of the site. East-west lines-of-site would be maintained within the biological open space in the southern portions of the site, then south into the Del Dios Highlands Preserve. 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 Del Dios Highlands Preserve) 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 biological open space, 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 biological open space 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.

6.3 CUMULATIVE IMPACT ANALYSIS

The cumulative projects are located in existing urbanized areas of San Marcos, Escondido, and unincorporated County, or located 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 Del Dios Highlands Preserve and Elfin Forest Recreational Reserve. The Project's contribution is not considerable given the development and open space design. 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 Harmony Grove Village 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 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 biological open space preserve to the existing Del Dios Highlands Preserve and Elfin Forest Recreational Reserve core habitat block, thereby enhancing habitat connectivity, widening the linkage, and conserving wildlife movement functions in those areas. The Project's biological open space would be contiguous with the Del Dios Highlands Preserve to the south; and undeveloped lands, rural/estate properties, and lands constrained by steep slopes and rugged terrain to the east and west. With the Project's proposed biological open space, 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.

6.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

No additional mitigation measures are required.

6.5 CONCLUSION

With the Project's proposed biological open space, incorporation of design features, and implementation of the measures listed above, impacts would be less than significant and no additional mitigation measures are required.

7.0 LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

7.1 GUIDELINES FOR DETERMINING SIGNIFICANCE

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Would the project conflict with the provisions of an adopted HCP, NCCP plan, or other approved local, regional or state HCP?

Any of the following conditions would be considered significant if:

A. For lands outside of the MSCP, the project would impact Diegan coastal sage scrub vegetation in excess of the County's 5 percent habitat loss threshold, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

B. The project would preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the RPO.

D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.

E. The project does not conform to goals and requirements outlined in any applicable HCP, Resource Management Plan (RMP), Special Area Management Plan, Watershed Plan, or similar regional planning effort.

F. For lands within the MSCP, the project would not minimize impacts to BRCA, as defined in the BMO (County 2010c).

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages, as defined by the BMO.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

J. The project would reduce the likelihood of survival and recovery of listed species in the wild.

K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

L. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act; BGEPA).

7.2 ANALYSIS OF PROJECT EFFECTS

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

C. The project would impact wetlands outlined in the RPO.

Unavoidable 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 crossing is allowed by the RPO because the following conditions are met:

(aa) There is no feasible alternative that avoids the wetland;

In order to reach Harmony Grove Road to the north or west of the site, any access road would have to cross Escondido Creek. To the south are preserved lands that cannot be crossed, and access to the east is blocked by steep hills and private homes. Therefore, there is no feasible alternative that avoids the wetland.

(bb) The crossings are limited to the minimum number feasible;

The project includes only one crossing, in the location of the existing crossing.

(cc) The crossings are located and designed in such a way as to cause the least impact to environmental resources, minimize impacts to sensitive species and prevent barriers to wildlife movement (e.g., crossing widths shall be the minimum feasible and wetlands shall be bridged where feasible);

The proposed crossing is a span bridge designed to minimize impacts to sensitive species and prevent barriers to wildlife movement. 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.

(dd) The least-damaging construction methods are utilized (e.g., staging areas shall be located outside of sensitive areas, work shall not be performed during the sensitive avian breeding season, noise attenuation measures shall be included and hours of operation shall be limited so as to comply with all applicable ordinances and to avoid impacts to sensitive resources);

Staging areas shall be located outside of sensitive areas to the extent possible, breeding season restrictions shall be included in the conditions of approval, noise attenuation measures shall be used as needed, and hours of operation shall comply with all applicable ordinances.

(ee) The applicant shall prepare an analysis of whether the crossing could feasibly serve adjoining properties and thereby result in minimizing the number of additional crossings required by adjacent development;

The crossing will serve several adjoining properties. During high flows, the existing low-water crossing becomes breached and not possible to cross by vehicle or other means, thereby stranding local residents who rely on that crossing to access Harmony Grove Road.

(ff) There must be no net loss of wetlands and any impacts to wetlands shall be mitigated at a minimum ratio of 3:1 (this shall include a minimum 1:1 creation component, while restoration/ enhancement of existing wetlands may be used to make up the remaining requirements for a total 3:1 ratio).

Temporary impact areas would be restored subject to Fuel Modification Zone requirements. Loss of habitat would be compensated in accordance with mitigation measures **M-BI-1c, M-BI-5a, M-BI-6a, M-BI-6b** and **M-BI-6c**.

K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

Implementation of the project could potentially result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs protected under the MBTA. Project construction could directly impact individuals or cause breeding birds to temporarily or permanently leave their territories, which could lead to reduced reproductive success and increased mortality. These impacts would be significant.

The Project would not result in significant impacts under the above guidelines for the following reasons:

A. The project would not impact Diegan coastal sage scrub vegetation outside of the MSCP in excess of the County's 5 percent habitat loss threshold, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

The Project would impact 10.4 acres of Diegan coastal sage scrub outside of adopted MSCP areas. As of February 9, 2013, the approved Diegan coastal sage scrub losses for the entire unincorporated County outside the MSCP boundaries total 1,187.52 acres. The total loss allowed under the 5 percent guideline is 2,953.30 acres. After including the loss of 10.4 acres from the project, the cumulative loss of 1,197.92 acres would not be in excess of the County's 5 percent habitat loss threshold. No impact would occur.

B. The project would not preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

The Project would occur within areas identified as PAMA under the Draft MSCP North County Plan; however, Project implementation would not preclude or prevent finalizing and adoption of this Plan. The project will result in preservation of 34.8 acres of on-site open space and 51.5 acres of off-site open space, for a total of 86.3 acres of open space preserve located in PAMA.

Conserving habitat blocks within and maintaining unobstructed access between the Del Dios Highlands Preserve, Elfin Forest Recreational Reserve, and Escondido Creek corridor are key targets for the Draft MSCP North County Plan. The Project would contribute biological open space immediately adjacent to the Del Dios Highlands Preserve-Elfin Forest

Recreational Reserve habitat block and would not have a substantial adverse impact on Escondido Creek or access to the Creek corridor.

As depicted on Figures 4 and 14, the Project would abut Harmony Grove Village, which is currently under construction. The Project's conservation design is consistent with the targets for the region. The Project contributes 34.8 acres of preserved land to the Del Dios Highlands Preserve-Elfin Forest Recreational Reserve habitat block, including 1.8 acres of temporary impacts restored to Diegan coastal sage scrub. 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 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. Tables 6 and 7 in Section 2.2 summarize the results of the analysis. The analysis demonstrates that Project impacts on Diegan coastal sage scrub, coastal sage-chaparral scrub, and non-native grassland are 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, as included in Table 6, 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. As discussed in other section of this report and depicted on Figure 19, wildlife will still have access to and from Escondido Creek and core habitat within the Del Dios Highlands Preserve and Elfin Forest Recreational Area. Target species, such as gnatcatcher and mule deer, will 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 biological open space preservation and off-site preservation of habitat with equivalent or superior functions and values compared to that which will be lost by the Project.

With respect to local conservation targets, as summarized within Table 8 and demonstrated in Appendix G to this report, 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 majority of Project impacts are restricted to non-native grassland that had been previously disturbed and subject to incompatible lands uses for many years. This grassland is identified as PAMA and high value habitat under the Draft North County Plan; however, it does not support key habitat or target species for the Draft North County Plan, as demonstrated by biological surveys for the Project. The grassland provides open undeveloped land adjacent to the Escondido Creek corridor; however, it 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. 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. 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 North County Plan.

One of the key targets for the Draft 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. It should be also be acknowledged that the Draft MSCP North County Plan California Gnatcatcher Habitat Evaluation Model ranks the site as having no value to the species for nesting (County 2008b). Portions of the site may facilitate gnatcatcher movement in the local area, but those portions are not critical and alternative dispersal habitat within PAMA is located to the east of the site. Impacts to coastal sage scrub, which constitute PAMA on the Project site, would not jeopardize the gnatcatcher or preclude or prevent approval and adoption of the Draft North County Plan.

The viability of off-site conserved lands as habitat and movement corridors for wildlife, including the Harmony Grove Village open space, Escondido Creek Conservancy open space, and Del Dios Highlands Preserve, would not be adversely affected by the Project. Off-site conserved lands within the Harmony Grove Village and Escondido Creek Conservancy open space are part of a constrained linkage of open space areas in the local area that do not extend across the Project site. Scrub and chaparral habitat situated at the eastern boundary of the Project site occur along the western edge of a portion of this linkage. Additional habitat occurs further to the east that facilitates wildlife movement along the constrained linkage. The project includes design features that will maintain some wildlife movement functions along the eastern boundary and minimize the impact on coastal sage

scrub and gnatcatcher. The project would further enhance riparian corridor habitat connectivity and wildlife functions at the Escondido Creek crossing. Last, the project would preserve additional off-site habitat in the subregional NCCP area that will be occupied by gnatcatcher and much larger in size and of equivalent or superior quality, function, and value compared to that being impacted by the project. Therefore, the project will not preclude or prevent the preparation of the subregional NCCP.

D. The project would minimize and mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.

The Project would impact 10.4 acres of coastal sage scrub habitat, out of 10.9 existing. 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 as follows:

1. *Is natural vegetation present?*

   Yes.

2. *Is coastal sage scrub present?*

   Yes.

3. *Is coastal sage scrub the most dense in the subregion?*

   No. The coastal sage scrub on the site is in relatively small patches surrounded by other habitat types. There is a large area of very high value gnatcatcher habitat about two miles to the southwest of the site (County 2008b).

4. *Is the land close to high value district?*

   Yes. Although it is small, there is an area of high value gnatcatcher habitat about half a 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 single family residential uses, although a constrained and fragmented connection of habitat exists.

5. *Is the land located in a corridor between higher value districts?*

   Yes. 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 along the West Ridge, which would connect known gnatcatcher records north of Escondido Creek to those from Del Dios Highlands Preserve and further to the south, southeast, and southwest.

6. *Does the land support high density of target species? Does land support significant populations of highly endemic species or rare sub-habitat types?*

   No. Although it does not support a high density of any one species, the site supports one breeding pair of coastal California gnatcatchers. Other sensitive species identified on the site are: ashy spike-moss (*Selaginella cinerascens*), San Diego sagewort (*Artemisia palmeri*), southwestern spiny rush (*Juncus acutus* var. *leopoldii*), summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), wart-stemmed ceanothus (*Ceanothus verrucosus*), American peregrine falcon (*Falco peregrinus anatum*), barn owl (*Tyto alba*), coastal California gnatcatcher, great blue heron (*Ardea herodias*), green heron (*Butorides virescens*), least Bell's vireo, northern harrier (*Circus cyaneus*), red-shouldered hawk (*Buteo lineatus*), turkey vulture (*Cathartes aura*), western bluebird (*Sialia mexicana*), white-tailed kite (*Elanus leucurus*), yellow-breasted chat (*Icteria virens*), and yellow warbler (*Setophaga petechia*). The site supports a large population of wart-stemmed ceanothus (23,113 plants); however, 21,150 (92%) would be conserved within the on-site open space.

   Based on the NCCP Logic Flow Chart, the quality of habitat supported on the project site is defined as being of "Low Value" and "Intermediate Value.", although the County's Habitat Evaluation shows the Project site ranked as having no value to the species 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 will 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 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 large, 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 will 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 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 biological open space, 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 and much larger in size and of equivalent or superior quality, function, and value compared to that being impacted by the Project.

The loss of 10.4 acres of coastal sage scrub on site would be mitigated at a 2:1 ratio in accordance with Section 4.3 of the NCCP Guidelines and offset by preserving additional habitat in the region. 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 addressed herein and will include detailed information about the specific type(s) and location(s) for the mitigation. 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 biological open space for the Project (Figure 17). 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: (1) biological open space 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 located in PAMA and in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion, or other location deemed acceptable by the County and Wildlife Agencies.

The project as a whole will 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.

The Biologically Superior Alternative would impact 7.4 acres of coastal sage scrub and preserve 3.5 acres of coastal sage scrub in biological open space, but would not include coastal sage scrub restoration. The alternative minimizes habitat loss to the maximum extent practicable by avoiding the coastal sage scrub on the eastern side of the project site where the gnatcatcher pair was observed breeding. The coastal sage scrub to be preserved on the east side includes the largest contiguous stand of gnatcatcher habitat on site, while the coastal sage scrub to the south and west occurs in smaller patches, largely surrounded by non-native grassland. Several patches of coastal sage scrub also occur near the center of the site that will be impacted. However, the impacted patches were inspected and

assessed during a site visit by CDFW and the County, and determined to be of relatively low function and value. The alternative would mitigate for habitat loss at a 2:1 ratio. Thus the alternative would also minimize and mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines, and impacts would also be less than significant.

E. The project does not conform to goals and requirements outlined in any applicable HCP, Resource Management Plan (RMP), Special Area Management Plan, Watershed Plan, or similar regional planning effort.

No adopted HCP, RMP, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the Project. As such, the project would not conflict with and adopted plans. No impact would occur.

F. For lands within the MSCP, the project would not minimize impacts to BRCA, as defined in the BMO (County 2010c).

The Project does not occur within an adopted MSCP planning area and the BMO does not apply. No impact would occur.

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

The Project would not preclude connectivity between high habitat value areas. The Project abuts existing residential developments to the east and west, and will abut equestrian park elements of Harmony Grove Village 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 moves east-west within the Escondido Creek corridor in the northern portion of the site. The existing residential uses and construction of the Harmony Grove Village 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 biological open space 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 runs east-west across the central portion of the site. This swath connects directly to lands designated as high value within Harmony Grove Village development footprint immediately west of the Project site. The Project would disrupt connectivity along this high value swath; however, the land within the Harmony Grove Village footprint to the west should not be afforded high value designation given the development plans and zoning restrictions on the land that are attached to the Harmony Grove Village Specific Plan. The high value off site to the west is slated for an equestrian center under the Harmony Grove Village Specific Plan and there are no plans for placing the

land within a biological open space easement. In addition, the land is characterized by non-native grassland that burned during the Cocos Fire. The current biological functions and values in the lands off site to the west 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 Del Dios Highlands Preserve. There is an area of high value gnatcatcher habitat about half a 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 will 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 will 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 will occur within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. The Project will 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 will be restored to coastal sage scrub and placed within biological open space, thereby replacing some of the habitat loss and minimizing the overall impact to the habitat on site. Last, the Project will preserve additional off-site habitat that will 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 Del Dios Highlands Preserve and Escondido Creek, as discussed in detail in Section 6.2. As such, the Project would not preclude connectivity between high habitat value areas in the region.

H. The project does not maintain existing movement corridors and/or habitat linkages, as defined by the BMO.

The Project does not occur within an adopted MSCP planning area and the BMO does not apply. No impact would occur.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

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

J. The project would reduce the likelihood of survival and recovery of listed species in the wild.

As addressed within Section 3.0, the Project could impact one breeding pair of coastal California gnatcatchers. There is also a potential for impacts to least Bell's vireo to breed in the riparian habitat at the Escondido Creek crossing. The Project site is used by a variety of wildlife species and, with the exception of wart-stemmed ceanothus, does not support core or critical populations of any special status species. The site generally contains large contiguous stands of chaparral, patchy stands of coastal sage scrub, non-native grassland, and sections of oak and willow riparian areas. Although a single gnatcatcher breeding pair will be impacted, impacts to 10.4 acres of coastal sage scrub will not reduce the likelihood of survival and recovery of the species. Of the 10.4 acres of coastal sage scrub that would be impacted, approximately 4.1 acres are considered Low Value due to the small size, vegetation composition, and fragmented arrangement of the stands. No gnatcatchers were observed or otherwise detected in these Low Value stands and their potential to support nesting gnatcatchers is considered to be low. Impacts to these Low Value stands that are not occupied by gnatcatcher would not reduce the likelihood of survival and recovery of the species. The remaining approximately 6.3 acres of coastal sage scrub on site are considered Intermediate Value due to their less-fragmented arrangement and proximity to the gnatcatcher breeding pair on site. Although less fragmented than the Low Value stands, the Intermediate Value stands are still broken by an existing paved roadway that traverses the site and other pockets of disturbed areas. The largest, intact stand also 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 coastal sage scrub, the potential for it to support additional gnatcatcher breeding territories beyond the single territory confirmed is considered low. The coastal sage scrub on site has a limited carrying capacity and ceiling for breeding gnatcatchers. Impacts to these Intermediate Value stands would also not reduce the likelihood of survival and recovery of the species.

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 above, off-site coastal sage scrub in the local area is composed of fragmented stands and islands of coastal sage scrub. 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 to. As also described above, movement functions along the eastern edge of the site will 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.

The project will conserve on-site coastal sage scrub and chaparral habitat to facilitate gnatcatcher movement through the local area and preserve a minimum of 18.5 acres of off-site coastal sage scrub with superior habitat connectivity and long-term viability for the species. Escondido Creek and avoidance buffers will be preserved and enhanced through removing barriers to movement and restoring habitat, providing superior habitat for least Bell's vireo and other riparian species. The wetland impacts would be mitigated within the same watershed as feasible through required agency permits. Habitat impacts would be mitigated off- site in the North County MSCP subarea. Mitigation for impacts to coastal sage scrub, including both the 4.1 acres of Low Value and 6.3 acres of Intermediate Value coastal sage scrub, is being provided at a 2:1 ratio in accordance with Mitigation Measure Bio-1B. Off-site coastal sage scrub mitigation to be provided will be occupied by gnatcatcher, of Intermediate or High Value, and/or other like-functioning habitat as approved by the County and Wildlife Agencies. Off-site preservation of mitigation land would include the recordation of a biological open space 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, the off-site mitigation would occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area or elsewhere in the northern coastal foothills ecoregion. The ultimate location must be approved by the County and Wildlife Agencies. Long-term management of the preserved land would 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 would 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 would 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. Therefore, the habitat loss will not appreciably reduce the likelihood of survival and recovery of listed species in the wild.

The Biologically Superior Alternative would be expected to support one breeding pair of coastal California gnatcatchers following build-out. Like the Project, the Alternative would not reduce the likelihood of survival or recovery for either species, and impacts would be less than significant.

L. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act; BGEPA).

The nearest known historic golden eagle nest is approximately 1.5 miles to the south of the Project site. However, 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 would occur to golden eagle or its habitat.

7.3 CUMULATIVE IMPACT ANALYSIS

The cumulative projects would be required to conform to County Guidelines 7.1.A through 7.1.L 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.

7.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

M-BI-9 No grubbing, clearing, or grading shall occur during the general avian breeding season (February 15 – 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.

7.5 CONCLUSION

Implementation of the Project would result in potentially significant impacts to breeding migratory birds. Implementation of mitigation measure **M-BI-9**, which proposes avoiding clearing of vegetation during the bird breeding season, would reduce these impacts to below a level of significance. Implementation of **M-BI-1b, M-BI-1c**, and **M-BI-4** would further reduce impacts on nesting birds to less than significant.

8.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Implementation of the project would result in significant impacts to special status animal species, sensitive natural communities, and local policies, all of which would be reduced to less than significant by implementation of the proposed mitigation measures. Table 11 provides a summary of project impacts and mitigation pertaining to sensitive natural communities. Table 12 provides a summary of the proposed mitigation measures.

Table 11
SUMMARY OF VEGETATION COMMUNITIES, IMPACT, AND MITIGATION FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

VEGETATION COMMUNITY/HABITAT	TOTAL EXISTING	TOTAL IMPACTS	IMPACT NEUTRAL	MITIGATION			
				Ratio	Required	Preserved On Site	Provided Off Site
Non-native vegetation (11000)	0.8	0.9	--	--	--	--	--
Disturbed habitat (11300)	3.6	3.9	--	--	--	<0.1	--
Urban/developed (12000)	0.9	2.1	0.1	--	--	<0.1	--
Diegan Coastal Sage Scrub (32500)	10.9	10.4	<0.1	2:1	20.8	2.3[1]	18.5
Coastal sage-chaparral transition (37G00)	4.5	4.5	0.1	2:1	9.0	--	9.0
Southern mixed chaparral (37121)	46.8	15.6	<0.1	0.5:1	7.8	31.1	--
Non-native Grassland (42200)	42.4	44.2	--	0.5:1	22.1	0.2	21.9
Southern willow riparian forest (61300)	-	0.71	--	3:1	2.13	--	2.13
Mule fat scrub (63310)	-	<0.01	--	3:1	0.01	--	0.01
Coast live oak woodland (71160)	0.9	0.2[2]	--	3:1	0.6	0.8	--
Eucalyptus Woodland (79100)	0.3	--	--	--	--	0.3	--
TOTAL	**111.1**	**82.5**	**0.1**	**--**	**62.44**	**34.8**	**51.54**

* Vegetation categories and numerical codes are from Oberbauer (2005)

[1] The preservation total of 2.3 acres of Diegan coastal sage scrub includes 1.8 acres of restoration. The 1.8-acre area to be temporarily impacted and restored to Diegan coastal sage scrub includes 0.5 acre of Diegan coastal sage scrub, less than 0.1 acre of disturbed habitat, 0.6 acre of southern mixed chaparral, and 0.6 acre of non-native grassland.

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

Table 12
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
M-BI-1a Prior to issuance of a grading permit, the Project applicant shall preserve 34.8 acres of on-site biological open space (BOS) determined to support sensitive species and habitat functions and values contiguous with the Del Dios Highlands Preserve 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 (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) 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.	Less than significant	3.1 A 3.1 B 3.1 L 4.2 A 7.2 K

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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:	Less than significant	3.1 A 3.1 B 3.1 L 4.2 A 7.2 K

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
M-BI-1b (cont.) • Off-site preservation of mitigation land, through the recordation of a biological open space 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.		

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
M-BI-1b (cont.) • 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 – 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.)		

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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 – 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.)	Less than significant	3.1 A 3.1 B 3.1 L 4.2 A 7.2 K

Table 12 (cont.) **SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT**		
PROPOSED MITIGATION	**LEVEL OF SIGNIFICANCE AFTER MITIGATION**	**GUIDELINE NUMBER**
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.	Less than significant	3.1 A 3.1 B

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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 biological open space 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.)	Less than significant	3.1 A 3.1 B 3.1 L 4.2 A 4.2 B 7.2 K

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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.)	Less than significant	3.1 B 3.1 C
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.	Less than significant	3.1 B 3.1 C 3.1 F
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.)	Less than significant	3.1 B 3.1 C
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.	Less than significant	3.1 B 3.1 C 3.1 F

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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 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. Construction 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.	Less than significant	3.1 A 3.1 B 7.2 K

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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.	Less than significant	4.2 A 4.2 B
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.	Less than significant	4.2 A
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 a biological open space 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.	Less than significant	4.2 A

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
M-BI-5c (cont.) 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.	Less than significant	4.2 A
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.	Less than significant	4.2 A
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.	Less than significant	4.2 A

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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.	Less than significant	4.2 A 4.2 B

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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.	Less than significant	4.2 A 4.2 B
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.	Less than significant	4.2 A 4.2 B 7.2 C

Table 12 (cont.)
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

PROPOSED MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION	GUIDELINE NUMBER
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-5a and M-BI-6a, above, unless otherwise required by USACE.	Less than significant	4.2 A 4.2 B
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-5a and M-BI-6c, above.	Less than significant	4.2 A 4.2 B 7.2 C
M-BI-9 No grubbing, clearing, or grading shall occur during the general avian breeding season (February 15 – 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.	Less than significant	7.2 K

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10.0 REFERENCES

AMEC Earth & Environmental, Conservation Biology Institute, Onaka Planning & Economics, and The Rick Alexander Company. 2003. Final Multiple Habitat Conservation Program Plan, Volume I. March.

American Ornithologists' Union (AOU). 2013. The AOU Checklist of North American Birds. URL: http://www.aou.org/checklist/north/suppl/51.php

Ashcraft, G. C. 1979. Effects of fire on deer in chaparral. Cal-Neva Wildlife Transactions. (1979): 177-189.

Baker, R.J., L.C. Bradley, R.D. Bradley, J.W. Dragoo, M.D. Engstrom, R.S. Hoffmann, C.A. Jones, F. Reid, D.W. Rice, and C. Jones. 2003. Revised checklist of North American Mammals north of Mexico. Occasional Papers of the Museum, Texas Tech University 223.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition. University of California Press, Berkeley.

Bats of San Diego County. 2012. http://home.earthlink.net/~cmsquare/

Bowman, R. 1973. Soil Survey of the San Diego Area. USDA in cooperation with the USDI, C Agricultural Experiment Station, Bureau of Indian Affairs, Department of the Navy, and the U.S. Marine Corps.

California Department of Fish and Wildlife. 2014a. State and Federally Listed Endangered, Threatened, and Rare Plants of California. State of California, The Resources Agency, Department of Fish and Wildlife, Biogeographic Data Branch, California Natural Diversity Database.
URL: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf. July.

2014b. State and Federally Listed Endangered and Threatened Animals of California. State of California, The Natural Resources Agency, Biogeographic Data Branch.
URL: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf. August.

2011. Special Animals List (898 taxa). State of California, The Resources Agency, Department of Fish and Game, Biogeographic Data Branch, California Natural Diversity Database. URL: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/spanimals.pdf. January.

2010. Hierarchical List of Natural Communities with Holland Types. September.

1993a. Southern California Coastal Sage Scrub NCCP Process Guidelines. URL: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=15550&inline

CDFW (cont.)

1993b. Southern California Coastal Sage Scrub NCCP Conservation Guidelines. URL: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=15549&inline

California Invasive Plant Council (Cal-IPC). 2006. California Invasive Plant Inventory. February. URL: http://www.cal-ipc.org/ip/inventory/index.php.

California Native Plant Society. 2014. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org Accessed August 2014.

Cavallaro, L, K. Sanden, J. Schellhase, and M. Tanaka. 2005. Designing Road Crossings for Safe Wildlife Passage: Ventura County Guidelines. MS Thesis, U.C. Santa Barbara.

Collins, Joseph T. and Travis W. Taggart. 2006. The Center for North American Herpetology (CNAH): The Academic Portal to North American Herpetology. URL: http://www.cnah.org/index.asp.

Conservation Biology Institute (CBI). 2003. Review of Regional Habitat Linkage Monitoring Locations. Multiple Species Conservation Program. January.

County of San Diego (County). 2011. San Diego County Code Title 8 Zoning and Land Use Regulations, Division 6. Miscellaneous Land Use Regulations. Chapter 6. Resource Protection Ordinance. October 14.

2011b. Del Dios Highlands Preserve Resource Management Plan. June 30.

2010a. Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources. Fourth Revision, September 15. http://www.sdcounty.ca.gov/pds/docs/Biological_Report_Format.pdf

2010b. Report Format and Content Requirements, Biological Resources. Fourth Revision, September 15.

2010c. Biological Mitigation Ordinance [for the South County MSCP Subarea Plan]. Ordinance No. 8845, 9246, 9632, 10039. April 2.

2009. Draft North County Plan. February.

2008a. Multiple Species Conservation Program North County Plan Habitat Evaluation Model. November 26. URL: http://www.sdcounty.ca.gov/pds/mscp/docs/071121_hem_11x17.pdf Accessed August 24, 2014.

County (cont.)

2008b. Multiple Species Conservation Program North County Plan California Gnatcatcher Habitat Evaluation Model Results. November 26. URL: http://www.sdcounty.ca.gov/pds/mscp/docs/071121_cagn_11x17.pdf Accessed August 24, 2014.

2002. Composite Habitat Evaluation Map. April.

1998. Final Multiple Species Conservation Program, MSCP Plan. August.

1994. Ordinance No. 8365. An Ordinance Amending the San Diego County Code to Establish a Process for Issuance of Coastal Sage Scrub Habitat Loss Permits, and Declaring the Urgency Thereof, to Take Effect Immediately. Passed, approved, and adopted March 2.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. with Appendices.

Glassberg, J. 2001. Butterflies through Binoculars. The West. A Field Guide to the Butterflies of Western North America. Oxford University Press. New York.

Escondido Creek Conservancy and Conservation Biology Institute. Undated. Map of Conserved Lands within the Escondido Creek focal area. URL: http://escondidocreek.org/the-watershed/maps/ Accessed August 24, 2014.

HELIX Environmental Planning, Inc. (HELIX). 2012. Jurisdictional Delineation Report for Eden Hills. December 13.

Hickman, J.C., ed. 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, 1400 pp.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, 156 pp.

Jackson, L. 1985. Ecological origins of California's Mediterranean grasses. Journal of Biogeography 12: 349-361.

Konecny Biological Services. 2013. Results of a Focused Survey for the Least Bell's Vireo and Coastal California Gnatcatcher at the Valiano Property Site, San Diego County, California, 2013. August 23.

Kremsater, Laurie L.; Bunnell, Fred L. 1992. Testing responses to forest edges: the example of black-tailed deer. Canadian Journal of Zoology. 70(12): 2426-2435. [85545]

Moore, Jeffrey. 2000. White-tailed Kite (*Elanus leucurus*) Species Account. Point Reyes Bird Observatory. URL: http://www.prbo.org/calpif/htmldocs/species/grassland/wtkiacct.html Accessed August 27, 2014.

Natural Resource Conservation Service. 2014a. National Resource Conservation Service Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

2014b. Hydric Soils of the U.S. Internet web site. http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/

NatureServe. 2009. NatureServe Conservation Status Assessments: Methodology for Assigning Ranks. April.

NETR Online. 2017. Historic Aerials by NETR Online. http://www.historicaerials.com/

Oberbauer, Thomas. 2008. Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions. Revised from 1996 and 2005. July.

Quinn, Ronald D. 1990. Habitat preferences and distribution of mammals in California chaparral. Res. Pap. PSW-202. Berkeley, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 11 p.

Rebman, Jon P. and Michael G. Simpson. 2006. Checklist of the Vascular Plants of San Diego County. 4th Edition. San Diego Natural History Museum, San Diego, California. 100 pp.

San Diego Natural History Museum. 2010. Plant Atlas Project. Version May 2010. Weblink: http://www.sdplantatlas.org/

Unitt, P. 2004. *San Diego County Bird Atlas*. No. 39. Proceedings of the San Diego Society of Natural History. October 31.

University of California, Division of Agriculture and Natural Resources. 2014a. Ground Squirrel Best Management Practices (Damage). URL: http://ucanr.edu/sites/Ground_Squirrel_BMP/Damage/

2014b. How to Manage Pests: Pocket Gophers. URL: http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7433.html

U.S. Army Corps of Engineers (USACE). 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Eds. J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center. September.

USACE (cont.)

2008b. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. R.W. Lichvar and S.M. McColley. ERDC/EL TR-08-12. Hanover, NH. U.S. Army Engineer Research and Development Center. August.

U.S. Fish and Wildlife Service. 2011. 50 CFR Part 17 Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to List Hermes Copper Butterfly as Endangered or Threatened. Federal Register, Vol. 76, No. 72, Thursday, April 14.

2001. Least Bell's Vireo Survey Guidelines. January 19.

1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol. August 6.

Wallmo, O. C.; LeCount, A.; Brownlee, S. L. 1981. Desert and chaparral habitats. Part II. Habitat evaluation and management. In: Wallmo, Olof C., ed. 1981. Mule and black-tailed deer of North America. Lincoln, NE: University of Nebraska Press: 366-386.

Zeiner, David C., William F. Laudenslayer, Jr., Kenneth Mayer, and Marshall White, eds. 1990a. California's Wildlife, Volume III, Mammals. California Statewide Wildlife Habitat Relationships System. State of California, The Resources Agency, California Department of Fish and Game. Sacramento, California. April.

1990b. California's Wildlife, Volume II, Birds. California Statewide Wildlife Habitat Relationships System. State of California, The Resources Agency, California Department of Fish and Game. Sacramento, California. November.

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Appendix A

PLANT SPECIES OBSERVED

Appendix A
PLANT SPECIES OBSERVED – HARMONY GROVE VILLAGE SOUTH

FAMILY	SCIENTIFC NAME	COMMON NAME	HABITAT**
Adoxaceae	*Sambucus nigra* ssp. *caerulea*	blue elderberry	SWRF
	*Agave americana**	American century plant	NNV
	Chlorogalum parviflorum	soap plant	GSMC, MSMC
	Hesperoyucca whipplei	chaparral yucca	DCSS
Anacardiaceae	*Malosma laurina*	laurel sumac	NGG, DCSS, CSCS, MSMC
	Rhus integrifolia	lemonade berry	DCSS
	Rhus ovata	sugar bush	DCSS, GSMC, MSMC
	*Schinus molle**	Peruvian pepper tree	NNV
	Toxicodendron diversilobum	poison-oak	CSCS, GSMC, CLOW
Apiaceae	*Apium graveolens**	celery	SWRF
	*Conium maculatum**	poison hemlock	SWRF
	*Foeniculum vulgare**	sweet fennel	NNG, DCSS, CSCS
	Sanicula arguta	sharp toothed sanicle	CSCS
	Sanicula crassicaulis	gamble weed	DCSS, GSMC
Apocynaceae	*Asclepias fascicularis*	narrow leaf milkweed	SWRF
	*Vinca major**	periwinkle	NNV
Asteraceae	*Acourtia microcephala*	sacapellote	GSMC
	Ambrosia psilostachya	ragweed	NNG
	Artemisia californica	coastal sagebrush	DCSS, CSCS
	Artemisia douglasiana	mugwort	SWRF
	Artemisia palmeri†	Palmer sagewort	CLOW
	Baccharis pilularis	coyote brush	DCSS, CSCS
	Baccharis salicifolia	mule fat	MFS, SWRF
	Baccharis sarothroides	broom baccharis	DCSS
	*Carduus pycnocephalus**	Italian thistle	NNG
	*Centaurea melitensis**	tocalote	NNG, GSMC
	Corethrogyne filaginifolia	sand aster	NNG, DCSS, CSCS
	Deinanadra fasciculata	tarweed	CSCS
	Encelia californica	bush sunflower	NNG
	Erigeron canadensis	horseweed	SWRF
	Erigeron coulteri	Coulter's fleabane	SWRF
	Eriophyllum confertiflorum	golden yarrow	GSMC, MSMC, CLOW
	Hazardia squarrosa	sawtooth goldenbush	DCSS, CSCS, GSMC, CLOW
	*Hedypnois cretica**	crete weed	NNG
	Helianthus gracilentus	slender sunflower	NNG, DCSS, CSCS

Appendix A (cont.)
PLANT SPECIES OBSERVED – HARMONY GROVE VILLAGE SOUTH

FAMILY	SCIENTIFC NAME	COMMON NAME	HABITAT**
Asteraceae	*Heterotheca grandiflora*	telegraph weed	NNG
	Isocoma menziesii	San Diego goldenbush	NNG, CSCS
	Pseudognaphalium californicum	California everlasting	NNG, DCSS
	*Silybum marianum**	milk thistle	NNG, CSCS
	*Sonchus asper**	spiny sowthistle	SWRF
Boraginaceae	*Eucrypta chrysanthemifolia*	spotted eucrypta	SMC
Brassicaceae	*Brassica nigra**	black mustard	SWRF
	*Hirschfeldia incana**	short-pod mustard	DCSS
	Nasturtium officinale	watercress	SWRF
	*Raphanus sativus**	wild radish	NNG
	Sisymbrium sp.*	mustard	NNG
Cactaceae	*Opuntia ficus-indica**	mission cactus	NNG
	Opuntia sp.	cactus	GSMC
Caprifoliaceae	*Lonicera subspicata*	southern honeysuckle	DCSS, CSCS, GSMC
Chenopodiaceae	*Chenopodium californicum*	California goosefoot	NNG
	Salicornia bigelovii	Biglow's pickleweed	GSMC
Cistaceae	*Helianthemum scoparium*	peak rush-rose	GSMC
Convolvulaceae	*Calystegia macrostegia*	island morning glory	DCSS
	Convolvulus sp.	bindweed	GSMC
Cucurbitaceae	*Marah macrocarpus*	wild cucumber	DCSS, CSCS
Datiscaceae	*Datisca glomerata*	Durango root	SWRF
Ericaceae	*Comarostaphylis diversifolia* ssp. *diversifolia*†	summer holly	GSMC
	Xylococcus bicolor	mission manzanita	NNG, CSCS, GSMC, MSMC
Euphorbiaceae	*Croton setigerus*	dove weed	NNG
Fabaceae	*Acmispon glaber*	deer weed	DCSS
	*Melilotus indicus**	indian sweetclover	NNG
	*Vicia villosa**	hairy vetch	NNG
Fagaceae	*Quercus agrifolia*	coast live oak	DCSS, CSCS, GSMC, CLOW
	Quercus berberidifolia	inland scrub oak	GSMC
Geraniaceae	*Erodium botrys**	broad leaf filaree	NNG
	*Erodium cicutarium**	red stemmed filaree	NNG
	*Geranium dissectum**	wild geranium	NNG
Grossulariaceae	*Ribes speciosum*	fuchsia flowered gooseberry	CSCS
Iridaceae	*Sisyrinchium bellum*	blue-eyed grass	NNG

Appendix A (cont.)
PLANT SPECIES OBSERVED – HARMONY GROVE VILLAGE SOUTH

FAMILY	SCIENTIFC NAME	COMMON NAME	HABITAT**
Juncaceae	*Juncus acutus*†	spiny rush	SWRF
Lamiaceae	*Marrubium vulgare**	horehound	DCSS
	Salvia apiana	white sage	DCSS
	Salvia mellifera	black sage	DCSS, CSCS, GSMC, MSMC
	Stachys sp.	hedge nettle	GSMC
Malvaceae	*Malva parviflora**	cheeseweed	NNG
Montiaceae	*Claytonia parviflora*	miner's lettuce	GSMC
Myrsinaceae	*Anagallis arvensis**	scarlet pimpernel	DCSS
Myrtaceae	*Eucalyptus* sp.*	eucalyptus	NNG, GSMC
Nyctaginaceae	*Mirabilis laevis*	wishbone bush	GSMC
Oleaceae	*Olea europaea**	olive	NNG
Onagraceae	*Oenothera elata* ssp. *hookeri*	Hooker's evening primrose	SWF
Paeoniaceae	*Paeonia californ*ia	California peony	CSCS
Phrymaceae	*MImulus aurantiacus*	bush monkeyflower	CSCS, GSMC, CLOW
Plantaginaceae	*Keckiella antirrhinoides*	snapdragon penstemon	GSMC
	*Plantago lanceolata**	english plantain	NNG
	*Plantago major**	common plaintain	SWRF
Platanaceae	*Platanus racemosa*	western sycamore	SWRF
Poaceae	*Arundo donax**	giant reed	SWRF
	Avena sp.*	oat	NNG, DCSS, NNV
	*Brachypodium distachyon**	false brome	NNG
	Bromus carinatus	California brome	NNG
	*Bromus diandrus**	ripgut brome	NNG, DCSS, CSCS, CLOW, NNV
	*Bromus hordeaceus**	soft chess	DCSS
	Bromus madritensis ssp. r*ubens**	red foxtail	NNG, NNV
	Distichlis spicata	salt grass	NNG
	*Festuca perennis**	rye grass	NNG
	*Hordeum murinum**	smooth barley	NNG
	*Pennisetum setaceum**	fountain grass	NNG
	*Poa annua**	annual bluegrass	SWRF
	Stipa lepida	foothill needlegrass	NNG
	*Stipa miliacea**	smilo grass	SWRF
Polygonaceae	*Eriogonum fasciculatum*	flat-top buckwheat	NNG, DCSS, CSCS
	*Rumex crispus**	curly dock	NNG
Ranunculaceae	*Thalictrum fendleri*	Fendler's meadow rue	CLOW, GSMC

Appendix A (cont.)
PLANT SPECIES OBSERVED – HARMONY GROVE VILLAGE SOUTH

FAMILY	SCIENTIFC NAME	COMMON NAME	HABITAT**
Rhamnaceae	*Ceanothus tomentosus*	Ramona lilac	MSMC
	Ceanothus verrucosus†	wart-stem ceanothus	DCSS, CSCS, GSMC, MSMC
	Rhamnus crocea	spiny redberry	DCSS, CSCS, GSMC
	Rhamnus ilicifolia	hollyleaf redberry	GSMC
Rosaceae	*Adenstoma fasciculatum*	chamise	CSCS, GSMC, MSMC
	Cercocarpus betuloides	mountain mahogany	NNG, GSMC
	Heteromeles arbutifolia	toyon	NNG, CSCS, GSMC, CLOW, MSMC
	Prunus ilicifolia	holly leaf cherry	CLOW
Rubiaceae	*Gallium aparine*	common bedstraw	SWRF
Rutaceae	*Cneoridium dumosum*	spice-bush	GSMC
Salicaceae	*Salix laevigata*	red willow	SWRF
	Salix lasiolepis	arroyo willow	SWRF
Selaginellaceae	*Selaginella cinerascens*†	ashy spike moss	GSMC
Simaroubaceae	*Ailanthus altissima**	tree of heaven	NNV
Solanaceae	*Solanum parishii*	parish nightshade	GSMC
Themidaceae	*Bloomeria crocea*	common goldenstar	NNG
	Dichelostemma capitatum	blue dicks	NNG
Typhaceae	*Typha* sp.	cat-tail	SWRF
Urticaceae	*Urtica dioica*	stinging nettle	SWRF
	*Urtica urens**	dwarf nettle	NNG

*Non-native Species
**MFS=Mule fat scrub; SWRF=southern willow riparian forest; CLOW=coast live oak woodland; DCSS=Diegan coastal sage scrub; CSCS=coastal sage-chaparral scrub; MSMC=Mafic southern mixed chaparral; GSMC=Granitic southern mixed chaparral; NNG=non-native grassland; EW=eucalyptus woodland; NNV=non-native vegetation; DH=disturbed habitat

†Special Status Species

Appendix B

ANIMAL SPECIES OBSERVED OR DETECTED

Appendix B
ANIMAL SPECIES OBSERVED OR DETECTED – HARMONY GROVE VILLAGE SOUTH

TAXON		SCIENTIFC NAME	COMMON NAME
INVERTEBRATES			
Order	Family		
Hymenoptera	Apidae	*Apis* sp.	honey bee
	Pompilidae	*Pepsis* sp.	tarantula hawk
Lepidoptera	Hesperiidae	*Erynnis funeralis*	funereal duskywing
		Pyrgus communis	common checkered-skipper
	Lycaenidae	*Icaricia acmon acmon*	acmon blue
		Leptotes marina	marine blue
	Papilionidae	*Papilio eurymedon*	pale swallowtail
		Papilio rutulus	western tiger swallowtail
	Pieridae	*Anthocharis sara sara*	Pacific Sara orangetip
		Pontia protodice	checkered white
		Pontia sisymbrii	spring white
	Riodinidae	*Apodemia mormo virgulti*	Behr's metalmark
	Theclinae	*Satyrium tetra*	mountain mahogany hairstreak
Odonata	Libellulidae	*Libellula saturata*	flame skimmer
VERTEBRATES			
Reptiles			
Order	Family		
Cryptodira	Emydidae	unidentified turtle	turtle
Squamata	Phrynosomatidae	*Sceloporus occidentalis*	western fence lizard
Birds			
Order	Family		
Accipitriformes	Accipitridae	*Buteo jamaicensis*	red-tailed hawk
		Buteo lineatus†	red-shouldered hawk
		Circus cyaneus†	northern harrier

Appendix B (cont.)
ANIMAL SPECIES OBSERVED OR DETECTED – HARMONY GROVE VILLAGE SOUTH

TAXON		**SCIENTIFC NAME**	**COMMON NAME**
VERTEBRATES (cont.)			
Birds (cont.)			
Order	Family		
Accipitriformes (cont.)	Accipitridae (cont.)	*Elanus leucurus*†	white-tailed kite
	Cathartidae	*Cathartes aura*†	turkey vulture
Anseriformes	Anatidae	*Anas platyrhynchos*	mallard
Apodiformes	Apodidae	*Aeronautes saxatalis*	white-throated swift
	Trochilidae	*Calypte anna*	Anna's hummingbird
		Calypte costae	Costa's hummingbird
Charadriiformes	Charadriidae	*Charadrius vociferus*	killdeer
Columbiformes	Columbidae	*Zenaida macroura*	mourning dove
Falconiformes	Falconidae	*Falco peregrinus*†	peregrine falcon
		Falco sparverius	American kestrel
Galliformes	Odontophoridae	*Callipepla californica*	California quail
Passeriformes	Aegithalidae	*Psaltriparus minimus*	bushtit
	Cardinalidae	*Passerina amoena*	lazuli bunting
		Passerina caerulea	blue grosbeak
		Pheucticus melanocephalus	black-headed grosbeak
	Corvidae	*Aphelocoma californica*	western scrub-jay
		Corvus brachyrhynchos	American crow
		Corvus corax	common raven
	Emberizidae	*Melospiza melodia*	song sparrow
		Melozone crissalis	California towhee
		Passerculus sandwichensis	savannah sparrow
		Pipilo maculatus	spotted towhee
		Zonotrichia leucophrys	white-crowned sparrow
	Fringillidae	*Haemorhous mexicanus*	house finch
		Spinus psaltria	lesser goldfinch
	Hirundinidae	*Petrochelidon pyrrhonota*	cliff swallow
		Stelgidopteryx serripennis	northern rough-winged swallow
	Icteridae	*Icterus cucullatus*	hooded oriole
		Molothrus ater	brown-headed cowbird

Appendix B (cont.)
ANIMAL SPECIES OBSERVED OR DETECTED – HARMONY GROVE VILLAGE SOUTH

TAXON		SCIENTIFC NAME	COMMON NAME
VERTEBRATES (cont.)			
Birds (cont.)			
Order	Family		
Passeriformes (cont.)	Icteridae (cont.)	*Sturnella neglecta*	brown-headed cowbird
	Mimidae	*Mimus polyglottos*	northern mockingbird
		Toxostoma redivivum	California thrasher
	Parulidae	*Cardellina pusilla*	Wilson's warbler
		Geothlypis trichas	common yellowthroat
		Icteria virens†	yellow-breasted chat
		Oreothlypis celata	orange-crowned warbler
		Setophaga coronata	yellow-rumped warbler
		Setophaga occidentalis	hermit warbler
		Setophaga petechia†	yellow warbler
	Polioptilidae	*Polioptila caerulea*	blue-gray gnatcatcher
	Ptilogonatidae	*Phainopepla nitens*	phainopepla
	Regulidae	*Regulus calendula*	ruby-crowned kinglet
	Sturnidae	*Sturnus vulgaris*	European starling
	Sylviidae	*Chamaea fasciata*	wrentit
		Polioptila californica californica†	coastal California gnatcatcher
	Troglodytidae	*Salpinctes obsoletus*	rock wren
		Thryomanes bewickii	Bewick's wren
		Troglodytes aedon	house wren
	Turdidae	*Catharus ustulatus*	Swainson's thrush
		Sialia mexicana†	western bluebird
	Tyrannidae	*Empidonax difficilis*	Pacific-slope flycatcher
		Myiarchus cinerascens	ash-throated flycatcher
		Sayornis nigricans	black phoebe
		Sayornis saya	Say's phoebe
		Tyrannus vociferans	Cassin's kingbird
	Vireonidae	*Vireo bellii pusillus*†	least Bell's vireo
Pelecaniformes	Ardeidae	*Ardea alba*	great egret

Appendix B (cont.)
ANIMAL SPECIES OBSERVED OR DETECTED – HARMONY GROVE VILLAGE SOUTH

TAXON		SCIENTIFC NAME	COMMON NAME
VERTEBRATES (cont.)			
Birds (cont.)			
Order	Family		
Pelecaniformes (cont.)	Ardeidae (cont.)	*Ardea herodias*†	great blue heron
		Butorides virescens†	green heron
Piciformes	Picidae	*Colaptes auratus*	northern flicker
		Melanerpes formicivorus	acorn woodpecker
		Picoides nuttallii	Nuttall's woodpecker
Strigiformes	Tytonidae	*Tyto alba*†	barn owl
Mammals			
Order	Family		
Carnivora	Canidae	*Canis latrans*	coyote
Lagomorpha	Leporidae	*Sylvilagus audubonii*	desert cottontail
Perissodactyla	Equidae	*Equus ferus caballus*	horse
Rodentia	Muridae	*Neotoma* sp.	woodrat
	Sciuridae	*Spermophilus beecheyi*	California ground squirrel

†Special Status Species

Appendix C

SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

Appendix C
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
Ashy spike-moss	*Selaginella cinerascens*	--/--[1] CNPS 4.1[2] County List D[3]	Prostrate herb. Occurs in rocky, open areas in sage scrub and chaparral. Elevation range 0-1000 ft. No flowering period, as it is not a flowering plant. Above-ground all year.	**Present**. Four patches of ashy spike-moss, ranging in size from approximately 1 to 14 square feet, were found in granitic southern mixed chaparral in the central portion of the study area.
Blue streamwort	*Stemodia durantifolia*	--/-- CNPS 2B.1 County List B	Small herb. Occurs in wet sandy areas along small creeks and is an obligate wetland plant. Elevation range 500-3000 ft. Flowering period Jan – Dec.	**None**. No suitable sandy banks occur in the drainages on the site.
California adder's-tongue fern	*Ophioglossum californicum*	--/-- CNPS 4.2 County List D	Small herb. Occurs in grassy, open areas near vernal pools and occasionally in dry, stony areas. Elevation range 0-1000 ft. No flowering season, as it is not a flowering plant. Above-ground Jan – Jun.	**Low**. Soils and habitat on the site are suitable, but not consistent with prime habitat (vernal pools). Species would have been observable during the April 2014 survey if present.
California adolphia	*Adolphia californica*	--/-- CNPS 2B.1 County List B	Occurs on clay soils in dry canyons and washes in coastal sage scrub and chaparral. Flowering period December – May.	**Very Low**. Clay soils not present on site. This conspicuous perennial would have been observable during the 2014 rare plant surveys if present.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
Cooper's rein orchid	*Piperia cooperi*	--/-- CNPS 4.2 County List D	Small herb. Occurs in vernally moist areas and in shallow soils adjacent to water courses. Elevation range 0-3000 ft. Flowering period Mar – Jun.	**None**. No suitable moist stream-side habitat occurs in the drainage on the site.
Del Mar manzanita	*Arctostaphylos glandulosa* ssp. *crassifolia*	FE/-- CNPS 1B.1 County List A	Occurs in coastal San Diego County in maritime chaparral on sandy soils. Flowering period December – June.	**Very low.** Maritime chaparral not present on site. This conspicuous perennial shrub would have been observable during the 2014 rare plant surveys if present.
Encinitas baccharis	*Baccharis vanessae*	FT/SE CNPS 1B.1 County List A	Occurs in southern maritime and southern mixed chaparrals. Flowering period August – November.	**Low.** Suitable chaparral habitat occurs on site; however, this conspicuous perennial shrub would have been observable during the 2014 rare plant surveys if present.
Engelmann oak	*Quercus engelmannii*	--/-- CNPS 4.2 County List D	Large tree. Occurs in oak woodland and mixed chaparral, and occasionally in grassy savannah. Elevation range 500+ ft. Flowering period Mar – Jun, but identifiable year-round by leaves and acorns.	**None**. Tree species that would have been observed if present during site surveys.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
Felt-leaved monardella	*Monardella hypoleuca* ssp. *lanata*	--/-- CNPS 1B.2 County List A	Perennial herb. Typically occurs in the understory of mature stands of chamise in xeric situations. Elevation: 300-1575 m Flowering period June – August.	**Moderate**. Suitable habitat occurs on site. The site is below the species known elevation range and species was not observed during the 2014 rare plant survey.
Golden-rayed pentachaeta	*Pentachaeta aurea* ssp. *aurea*	--/-- CNPS 4.2 County List D	Small annual herb. Occurs in mesic grasslands, woodlands, conifer forests, and sage scrub. Elevation range 0+ ft. Flowers Mar – July.	**Low**. Soils and habitat on the site are suitable; however, species would have been observable during the April 2014 survey if present. Species was not observed in rare plant surveys on Del Dios Highlands Preserve, Harmony Grove Village, or Valiano.
Graceful tarplant	*Holocarpha virgata* ssp. *elongata*	--/-- CNPS 4.2 County List D	Medium annual herb. Occurs in grasslands on coastal mesas and in the foothills. Elevation range 0-3000 ft. Flowering period May – Nov.	**Low**. Soils and habitat on the site are suitable. Species would have been observable during the August and November 2014 surveys if present. HELIX observed this species on other sites in 2014.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
Hammitt's clay-cress	*Sibaropsis hammittii*	--/-- CNPS 1B.2 County List A	Chaparral (openings) and valley and foothill grassland supported by clay. Elevation range 2,362-3,494 ft. Flowering period Mar – Apr	**None.** Clay soils are absent from the site. The site is well below the species' known elevation range. Known from only five occurrences, one in Wildomar and four on Viejas Mountain.
Nuttall's scrub oak	*Quercus dumosa*	--/-- CNPS 1B.1 County Group A	Closed-cone coniferous forest, chaparral, coastal scrub. Generally on sandy soils near the coast; sometimes on clay loam. Found between 50-3000 feet in elevation. Blooming period February through August. Perennial evergreen shrub.	**Low.** Species would have been observed if present.
Orcutt's brodiaea	*Brodiaea orcuttii*	--/-- CNPS 1B.1 County List A	Small herb. Occurs only on clay soils in vernally moist environments, usually near vernal pools but occasionally near streams. Elevation range 0-5000 ft. Flowering period May – Jul.	**Very Low**. No suitable clay soils or vernally moist habitat occur on the site.
Palmer's goldenbush	*Ericameria palmeri* ssp. *palmeri*	--/-- CNPS 1B.1 County List B	Large shrub. Occurs in coastal drainages, mesic chaparral, and occasionally in coastal sage scrub. Elevation range 0-1500 ft. Flowering period Sep – Nov.	**Low**. Soils and habitat on the site are suitable; however, no *Ericameria* shrubs observed during 2014 surveys.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
Palmer's grapplinghook	*Harpagonella palmeri*	--/-- CNPS 4.2 County List D	Mat-forming herb. Occurs on clay soils in grasslands and coastal sage scrub. Elevation range 0-3000 ft. Flowering period Mar – May.	**Very Low**. No suitable clay soils occur on the site. Species would have been observable during the April 2014 survey if present.
Parry's tetracoccus	*Tetracoccus dioicus*	--/-- CNPS 1B.2 County List A	A robust shrub that occurs in chamise chaparral with a preference for Las Posas soils. Habitat conditions are typically quite xeric with only limited annual growth. Flowering period April – May.	**Low**. Suitable habitat is present on site; however, this conspicuous perennial shrub would have been observed during surveys if present.
Rainbow manzanita	*Arctostaphylos rainbowensis*	--/-- CNPS 1B.1 County List A	Southern mixed chaparral in Fallbrook, Pala, and southern Riverside County is preferred habitat. Flowering period December – March.	**Low.** Suitable habitat occurs on site; however, the site is outside of the species' known range. This conspicuous perennial shrub would have been observable during the 2014 rare plant surveys if present.
Ramona horkelia	*Horkelia truncate*	--/-- CNPS 1B.3 County List A	Chaparral and cismontane woodland supported by clay and gabbroic soils. Elevation limits 1312-4265 ft. Flowering period May - Jun	**Low.** Suitable habitat is present; however, the site is well below the species' known elevation range. This perennial herb was not observed during 2014 surveys.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
Robinson's peppergrass	*Lepidium virginicum* var. *robinsonii*	--/-- CNPS 4.3 County List A	Medium annual herb. Occurs in openings in chaparral and coastal sage scrub. Typically observed in relatively dry, exposed locales rather than beneath a shrub canopy or along creeks. Elevation range 0-5000 ft. Flowering period Jan – Jul.	**Low**. Habitats on the site are suitable and this species was observed in one location on the adjacent Del Dios Highlands Preserve; however, species would have been observable during the April 2014 survey if present. The Consortium of California Herbaria has three records of this species from May 2014 from Camp Pendleton and CalPhotos has photos of this plant from March 2014 in Los Penasquitos Canyon and April 2014 in Sycamore Canyon; therefore, April 2014 was an acceptable time to survey for this species.
Rush-like bristleweed	*Xanthisma junceum*	--/-- CNPS 4.3 County List D	Medium perennial herb. Occurs in xeric chaparral and coastal sage scrub, on exposed, rocky substrates. Elevation range 500-4000 ft. Flowering period Jun – Jan.	**Low**. Habitats on the site are suitable; however, this perennial species would have been observable during the August and September 2014 surveys if present.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
San Diego ambrosia	*Ambrosia pumila*	FE/-- CNPS 1B.1 County List A	Small herb. Generally found along creeks or seasonal drainages along the periphery of willow riparian areas, primarily on sandy loam or clay soils. Elevation range 650-2000 ft. Flowering period Apr – Oct.	**Low**. Suitable soils and habitat occur along Escondido Creek; however, this species is very rare and known from fewer than 20 locations. Species would have been observable during the April and August 2014 surveys if present.
San Diego barrel cactus	*Ferocactus viridescens*	--/-- CNPS 2B.1 County List B	Optimal habitat for this cactus appears to be Diegan coastal sage scrub hillsides, often at the crest of slopes and growing among cobbles. Flowering period May – June.	**Low.** Suitable habitat present on site. Succulent perennial visible all year; species would have been observed if present.
San Diego button-celery	*Eryngium aristulatum* var. *parishii*	FE/SE CNPS 1B.1 County List A	Occurs in vernal pools or mima mound areas with vernally moist conditions that are not present on site. Flowering period Apr – Jun.	**Very low.** Occurs in vernal pools or mima mound areas with vernally moist conditions that are not present on site. Species would have been observable during the April 2014 survey if present.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
San Diego County needle grass	*Stipa diegoensis*	--/-- CNPS 4.2 County List D	Tall bunchgrass. Occurs in chaparral – sage scrub ecotone, usually in fine, silty loam soil. Elevation range 0-3000 ft. Flowering period Feb – Jun.	**Low**. Soils and habitats on the site are suitable. No areas of native grassland were observed during surveys in 2014. Species would have been observable during the April 2014 survey if present.
San Diego goldenstar	*Bloomeria clevelandii*	--/-- CNPS 1B.1 County List A	Small herb. Occurs on clay soils in grasslands and coastal sage scrub. Elevation range 0-2000 ft. Flowering period Apr – May.	**Low**. No suitable clay soils occur on the site. Species would have been observable during the April 2014 survey if present.
San Diego marsh-elder	*Iva hayesiana*	--/-- CNPS 2B.2 County List B	Occurs along stream courses. Shrub identifiable all year. Flowering period April – October.	**Low.** Species would have been observed during the 2014 rare plant surveys if present.
San Diego sagewort	*Artemisia palmeri*	--/-- CNPS 4.2 County List D	Medium shrub. Occurs along streams in coastal sage scrub and chaparral. Elevation range 0-3000 ft. Flowering period May – Sep, but identifiable year-round by leaves.	**Present**. Two San Diego sagewort were observed in coast live oak woodland, and two San Diego sagewort were observed in mafic southern mixed chaparral. Both locations were in the western portion of the study area.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
San Diego sunflower	*Bahiopsis laciniata*	--/-- CNPS 4.2 County List D	Medium shrub. Occurs in coastal sage scrub, often at high density. Elevation range 0-3000 ft. Flowering period Feb – Aug, but identifiable year-round by leaves.	**Low.** Species would have been observed if present.
San Diego thorn-mint	*Acanthomintha ilicifolia*	FT/SE CNPS 1B.1 County List A	Small herb. Occurs on clay soils near vernal pools and in grassy openings in coastal sage scrub and chaparral. Elevation range 0-3000 ft. Flowering period Apr – Jun.	**Very low**. Suitable clay soils do not occur on the site. Species would have been observable during the April 2014 survey if present.
Summer holly	*Comarostaphylis diversifolia* ssp. *diversifolia*	--/-- CNPS 1B.2 County List A	Occurs in chaparral. Large shrub visible all year. Flowering period April – June.	**Present.** Four individuals were observed in the central portion of the study area within Mafic southern mixed chaparral. An additional 18 individuals were observed in the central-eastern and northeastern corners of the study area within Mafic and Granitic southern mixed chaparral.
Southern tarplant	*Centromadia parryi* ssp. *australis*	--/-- CNPS 1B.1 County List A	Annual herb. Occurs in seasonally moist (saline) grasslands. Mesic areas in valley and foothill grasslands, alkaline locales, and peripheral salt marsh are utilized. Flowering period May – November.	**Very low.** Potential habitats not present on site. Species would have been observable during the August and November 2014 surveys if present.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
Small-flowered morning glory	*Convolvus simulans*	--/-- CNPS 4.2 County List D	Chaparral (openings), coastal scrub, valley and foothill grassland supported by clay soils and at serpentinite seeps. Flowering period Mar – Jul.	**None.** Suitable soils are absent from the site. Species would have been observable during the April 2014 survey if present.
Smooth tarplant	*Centromadia pungens* ssp. *laevis*	--/-- CNPS 1B.1 County List A	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland at alkaline sites and coastal valley bottoms. Flowering period Apr – Sep.	**None.** Alkaline conditions were not apparent at the site during surveys. Species would have been observable during the April 2014 survey if present.
Spiny rush	*Juncus acutus* ssp. *leopoldii*	--/-- CNPS 4.2 County List D	Large clump-forming graminoid. Occurs in moist, saline or alkaline soils in coastal salt marshes and riparian alkaline marshes. Elevation range 0-3000 ft. Flowering period May – Jun, but identifiable year-round by leaves and growth habit.	**Present**. One individual of southwestern spiny rush was observed in the study area near the Country Club Drive crossing of Escondido Creek.
Spreading navarretia	*Navarretia fossalis*	--/-- CNPS 1B.1 County List A	Small herb. Occurs in vernal pools, playas, freshwater marshes, and chenopod scrub. Elevation range 200-3000 ft. Flowering period Apr – Jun.	**Very Low**. Suitable habitat does not occur on the site. Species would have been observable during the April 2014 survey if present.
Sticky dudleya	*Dudleya viscida*	--/-- CNPS 1B.2 County List A	Perennial herb. Grows predominantly on very steep north-facing slopes in shady, mesic conditions. Flowering period May – June.	**Very low.** Potential habitat not present on site. All known occurrences are located to the west and northwest of the project site.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur
Thread-leaved brodiaea	*Brodiaea filifolia*	FT/SE CNPS 1B.1 County List A	Occurs in coastal sage scrub, cismontane woodlands, grassland, and vernal pools with clay soils. Flowering period March to June.	**Very Low.** No clay soils or vernal pools occur on site. Species would have been observable during the April 2014 survey if present.
Variegated dudleya	*Dudleya variegata*	--/-- CNPS 1B.2 County List A	Small herb. Occurs on clay soils near vernal pools, and on metavolcanic rocky soils in open coastal sage scrub, chaparral, and grasslands. Elevation range 0-3500 ft. Flowering period Apr – Jun.	**None**. No suitable vernal pool habitat. This conspicuous species would have been observable during the April 2014 survey if present.
Wart stemmed ceanothus	*Ceanothus verrucosus*	--/-- CNPS 2B.2 County List B	Occurs in chaparral. Flowering period December – May.	**Present.** Numerous individuals were recorded throughout the study in Diegan coastal sage scrub, coastal sage-chaparral scrub, non-native grassland, mafic southern mixed chaparral, and granitic southern mixed chaparral.
Western dichondra	*Dichondra occidentalis*	--/-- CNPS 4.2 County List D	Mat-forming herb. Occurs on sandy banks in coastal sage scrub, chaparral, and oak woodland, often after fire. Elevation range 0-2000 ft. Flowering period Mar – Jul.	**Moderate**. Suitable habitat is present on the site. Species would have been observable during the April 2014 survey if present.

Appendix C (cont.)
SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR – HARMONY GROVE SOUTH

Common Name	Species Name	Status	Habit, Ecology and Life History	Potential to Occur

[1]Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; R = Rare

[2]CNPS = California Native Plant Society Rare Plant Rank: 1A – presumed extirpated in California and either rare or extinct elsewhere; 1B – rare, threatened, or endangered in California and elsewhere; 2A – presumed extirpated in California, but more common elsewhere; 2B – rare, threatened, or endangered in California, but more common elsewhere; 3 – more information needed; 4 – watch list for species of limited distribution. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered.

[3] County of San Diego Sensitive Plant Lists: A – rare, threatened, or endangered in California and elsewhere; B – rare, threatened, or endangered in California but more common elsewhere; C – may be quite rare but need more information; D – limited distribution and may be uncommon, but not presently endangered.

Appendix D

SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

Appendix D
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Insects				
Hermes copper	*Lycaena hermes*	FC/--[1] County Group 1[2]	Southern mixed chaparral and coastal sage scrub at western edge of Laguna mountains. Requires host plant redberry (*Rhamnus crocea*) in close proximity to California buckwheat (*Eriogonum fasciculatum*) or other nectar sources.	**Very Low**. Suitable host plant associations occur on the site. The nearest and most recent observation of the species is from Elfin Forest in 2002, but that area was burned in 2007, and the status of the population is unknown (USFWS 2011). Two other nearby reported populations, San Marcos Creek/Questhaven Road and Lake Hodges, are both presumed extirpated (USFWS 2011). Protocol surveys conducted in 2014 were negative.
Monarch butterfly	*Danaus plexippus*	--/-- County Group 2	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Larval host plants consist of milkweeds (*Asclepias* spp.).	**Low**. Suitable roosting habitat and larval host plant species do not occur on the site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Insects				
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE/-- County Group 1	Occurs in seasonally astatic pools, which occur in tectonic swales or earth slump basins and other areas of shallow, standing water often in patches of grassland and agriculture interspersed in coastal sage scrub and chaparral.	**None**. No suitable habitat occurs on site.
Reptiles and Amphibians				
Arroyo toad	*Anaxyrus californicus*	FE/SSC County Group 1	Requires rivers with sandy banks, willows, cottonwoods, and sycamores. Breeds in areas with shallow, slowly moving streams, but burrows in adjacent uplands during dry months.	**None**. No suitable sandy or loose, gravelly stream bank habitats occur within the study area.
California red-legged frog	*Rana draytoni*	FT/SSC County Group 1	Found in dense, shrubby riparian vegetation with deep, slow-moving water. Readily displaced by introduced aquatic predators, including bullfrogs (*Rana catesbiana*) or crayfish (*Procambarus* sp).	**None**. No suitable riparian habitat or deep, slow-moving water occur within the study area. Bullfrogs and crayfish have been observed along Escondido Creek.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Reptiles and Amphibians (cont.)				
Coast horned lizard	*Phrynosoma blainvillii*	--/SSC County Group 1	Occurs in coastal sage scrub, chaparral, open oak woodlands, and open coniferous forests. Important habitat components include basking sites, adequate scrub cover, areas of loose soil, and an abundance of harvester ants (*Pogonomyrmex* sp.), a primary prey item.	**High**. Suitable habitat occurs on the site.
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	--/SSC County Group 2	Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.	**High**. Suitable brushy habitat occurs on the site.
Coastal rosy boa	*Charina trivirgata*	--/-- County Group 2	Occurs among rocky outcrops in coastal sage scrub, chaparral, and desert scrub.	**Moderate**. Suitable habitat occurs on the site.
Coastal whiptail	*Aspidoscelis tigris stejnegeri*	--/-- County Group 2	Open coastal sage scrub, chaparral, and woodlands. Frequently found along the edges of dirt roads traversing its habitats. Important habitat components include open, sunny areas, shrub cover with accumulated leaf litter, and an abundance of insects, spiders, or scorpions.	**High**. Suitable open habitat occurs on the site.
Coronado skink	*Plestiodon skiltonianus interparietalis*	--/SSC County Group 2	Occurs in grasslands, coastal sage scrub, and open chaparral where there is abundant leaf litter or low herbaceous growth.	**High**. Suitable grassland habitat occurs on the site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Reptiles and Amphibians (cont.)				
Red diamond rattlesnake	*Crotalus ruber*	--/SSC County Group 2	Found in chaparral, coastal sage scrub, along creek banks, particularly among rock outcrops or piles of debris with a supply of burrowing rodents for prey.	**High**. Suitable habitat and prey occur on the site.
Orange-throated whiptail	*Aspidoscelis hyperythra*	--/SSC County Group 2	Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites (*Reticulitermes* sp.).	**High**. Suitable coastal sage scrub habitat occurs on the site.
San Diego banded gecko	*Coleonyx variegatus abbottii*	--/-- County Group 1	Chaparral and coastal sage scrub in areas with rock outcrops.	**Moderate**. Suitable coastal sage scrub habitat occurs on the site.
San Diego ringneck snake	*Diadophis punctatus similis*	--/-- County Group 2	Generally occurs in moist habitats such as oak woodlands and canyon bottoms, but is also sometimes encountered in grassland, chaparral, and coastal sage scrub; generally restricted to leaf litter and rarely crosses open areas.	**Low**. Secondary habitats including grassland and coastal sage scrub occur on the site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Reptiles and Amphibians (cont.)				
Silvery legless lizard	*Anniella pulchra pulchra*	--/SSC County Group 2	Areas with loose soil, particularly in sand dunes and or otherwise sandy soil. Generally found in leaf litter, under rocks, logs, or driftwood in oak woodland, chaparral, and desert scrub.	**Very low**. Suitable leaf litter habitats occur on site are limited.
Two-striped garter snake	*Thamnophis hammondii*	---/SSC County Group 1	Typical habitat is along permanent and intermittent streams bounded by dense riparian vegetation; also found associated with vernal pools and stock ponds.	**Very low.** Riparian habitat found off site along Escondido Creek provides limited habitat for species.
Western pond turtle	*Emys marmorata*	--/SSC County Group 1	Almost entirely aquatic; occurs in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Requires basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Low**. Suitable aquatic habitat occurs to the north of the site along Escondido Creek; however, the habitat is of low quality.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Reptiles and Amphibians (cont.)				
Western spadefoot	*Spea hammondii*	--/SSC County Group 2	Occurs in open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas; requires temporary pools for breeding and friable soils for burrowing; generally excluded from areas with bullfrogs (*Rana catesbiana*) or crayfish (*Procambarus* sp.).	**Low**. Suitable habitat found on site is limited. Bullfrogs and crayfish occur off site along Escondido Creek.
Birds				
American peregrine falcon	*Falco peregrinus anatum*	BCC/FP County Group 1	Generally, areas with cliffs near water where prey (shorebirds and ducks) is concentrated. Preferred hunting areas are agricultural fields, meadows, marshes, and lakes. Nesting usually occurs on cliff ledges or in a scrape in debris and occasionally in the old nests of other birds.	**Present.** Two individual falcons were observed flying over the eastern portion of the study area.
Barn owl	*Tyto alba*	--/--County Group 2	Require large areas of open land over which to hunt. Marsh, grasslands, or mixed agricultural fields. For nesting and roosting they need cavities in trees or man-made structures such as barns or silos.	**Present.** Single individual observed perched in a Peruvian pepper tree (*Schinus molle*) along the site's western boundary during general biological surveys.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Birds (cont.)				
Bell's sage sparrow	*Amphispiza belli belli*	BCC/WL County Group 1	Occurs in sunny, dry stands of coastal sage scrub or chaparral.	**Moderate**. Suitable coastal sage scrub habitat occurs on the site.
Burrowing owl	*Athene cunicularia*	BCC/SSC County Group 1	Typical habitat is grasslands, open scrublands, agricultural fields, and other areas where there are ground squirrel burrows or other areas in which to burrow. All records of burrowing owl in northwestern San Diego County are prior to 1997 (Unitt 2004).	**Moderate**. Suitable grassland habitat and abundant small mammal prey occur on the site. Protocol surveys conducted in 2014 were negative.
California gull	*Larus californicus*	--/WL County Group 2	Breeds on islands in lakes or rivers. Forages along lakes, bogs, farm fields, lawns, pastures, sagebrush, garbage dumps, feedlots, parking lots, ocean beaches, and open ocean.	**None**. No suitable aquatic habitat occurs on the site.
California horned lark	*Eremophila alpestris actis*	--/WL County Group 2	Found on sandy beaches and in agricultural fields, grassland, and open areas.	**High.** Suitable grassland habitat present on site.
Coastal cactus wren	*Campylorhynchus brunneicapillus sandiegonensis*	BCC/SSC County Group 1	Occurs in coastal sage scrub with large cacti for nesting.	**Very low.** No suitable habitat occurs on site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Birds (cont.)				
Coastal California gnatcatcher	*Polioptila californica californica*	FT/SSC County Group 1	Occurs in coastal sage scrub with California sagebrush (*Artemesia californcia*) as a dominated or co-dominant below 2,500 feet.	**Present**. One pair of gnatcatcher was observed moving among patches of Diegan coastal sage scrub and building a nest in an area of Diegan coastal sage scrub and granitic southern mixed chaparral during the 2014 protocol surveys. The nest was being constructed in chamise (*Adenstoma fasciculatum*) approximately 2.5 feet off the ground.
Cooper's hawk	*Accipiter cooperi*	--/WL County Group 1	Tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrublands or fields.	**High**. Suitable breeding habitat occurs off site. The site provides potential foraging habitat.
Ferruginous hawk	*Buteo regalis*	BCC/WL County Group 1	In San Diego County occurs only in winter. Found in open country, primarily prairies, plain and badlands, breeding in trees near streams or on steep slopes, sometimes on mounds in open desert.	**High**. Suitable open grassland habitat occurs on the site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Birds (cont.)				
Golden eagle	*Aquila chrysaetos*	BCC, BGEPA/ WL, Fully Protected County Group 1	Typical foraging habitat includes grassy and open, shrubby habitats. Generally nests on remote cliffs; requires areas of solitude at a distance from human habitation.	**Low**. No suitable nesting habitat occurs on the site. The site does not contain mountain areas or large trees for nesting. The site is surrounded by rural development on all sides not preferred by this species.
Grasshopper sparrow	*Ammodramus savannarum*	--/SSC County Group 1	Typical habitat is dense grasslands that have little or no shrub cover.	**High**. Suitable grassland habitat occurs on the site.
Great blue heron	*Ardea herodias*	--/-- County Group 2	Wetland habitats, but can be observed foraging away from water.	**Present**. One individual was observed within the study area within Escondido Creek.
Green heron	*Butorides virescens*	--/-- County Group 2	Found around wooded ponds, marshes, rivers, reservoirs, and estuaries.	**Present.** One individual was observed within the study area within Escondido Creek.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Birds (cont.)				
Least Bell's Vireo	*Vireo bellii pusillus*	FE/ CE County Group 1	Summer resident of Southern California. Inhabits riparian woodland and is most frequent in areas that combine an understory of dense, young willows or mule fat with a canopy of tall willows.	**Present.** Single, unpaired male detected within the study area along Escondido Creek, primarily using habitat immediately east of Country Club Drive during protocol surveys conducted in 2014. 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 confirmed to be unassociated with a breeding territory. 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.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Birds (cont.)				
Loggerhead shrike	*Lanius ludovicianus*	BCC/SSC County Group 1	Typical habitat includes open habitats including grasslands, shrublands, and ruderal areas with adequate perching locations.	**High**. Suitable grassland habitat occurs on the site.
Long-eared owl	*Asio otus*	--/SSC County Group 1	In San Diego County is a rare resident in shady oak woodlands and broad riparian forests. Ideal habitat includes a closed canopy near open habitats for foraging and a supply of abandoned raptor or corvid nests or debris platforms for nesting (Unitt 2004).	**Low**. Oak woodland and riparian forest habitat occur off site with grassland habitats occurring on the site. Oak woodland and riparian forest habitats are small size.
Merlin	*Falco columbarius*	--/-- County Group 2	Occurs along seacoasts, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country. In San Diego County occurs in small numbers and only in winter.	**Moderate.** Suitable foraging and winter habitat found on site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Birds (cont.)				
Northern harrier	*Circus cyaneus*	--/SSC County Group 1	Within San Diego County, distribution is primarily scattered throughout lowlands but can also be observed in foothills, mountains, and desert. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas. Typical habitat consists of open grassland and marsh.	~~**High**~~**Present**. One female northern harrier was observed flying low over chaparral in the central part of the site.~~Suitable grassland habitat present on site~~.
Prairie falcon	*Falco mexicanus*	BCC/WL County Group 1	Inhabits dry, open terrain, either level or hilly. Nests on cliffs or bluffs and forages over open desert scrub or grassland.	**High**. Suitable dry, open habitat occurs on the site. Suitable nesting habitat absent from the site.
Red-shouldered hawk	*Buteo lineatus*	--/-- County Group 1	Riparian woodland, oak woodland, orchards, eucalyptus groves, or other areas with tall trees.	**High**. Suitable riparian habitat occurs off site within Escondido Creek.
Sharp-shinned hawk	*Accipiter striatus*	--/WL County Group 1	Usually observed in areas with tall trees or other vegetative cover but can be observed in a variety of habitats. In San Diego County occurs in small numbers and only in winter.	**High**. Suitable habitat present in surrounding area. Suitable foraging habitat occurs on site.
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	--/WL County Group 1	Occurs in coastal sage scrub and sparse mixed chaparral on rocky hillsides and in canyons; also found in open sage scrub/grassy areas of successional growth.	**High**. Suitable coastal sage scrub habitat occurs on the site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Birds (cont.)				
Southwestern willow flycatcher	*Empidonax trailii extimus*	FE/SE County Group 1	Breeds within thickets of willows or other riparian understory usually along streams, ponds, lakes, or canyons. One of the most important characteristics of the habitat appears to be the presence of dense vegetation, usually throughout all vegetation layers present. Almost all breeding habitats are within close proximity of water or very saturated soil.	**Very low.** Very little potential habitat to the north of site within Escondido Creek and is unlikely to support this species.
Turkey vulture	*Cathartes aura*	--/-- County Group 2	Species occurs throughout much of San Diego County with the exception of extreme coastal San Diego where development is heaviest. Foraging habitat includes most open habitats with breeding occurring in crevices among boulders.	**Present**. Two turkey vultures were observed soaring over chaparral and Diego coastal sage scrub in the central and northern portions of the study area.
Western bluebird	*Sialia mexicana*	--/-- County Group 2	Open coniferous and deciduous woodlands, wooded riparian areas, grasslands, farmlands, and edge of burned areas. Prefers open forest habitats. Nests in cavities in trees and snags, or between bark and trunk. Uses nest boxes.	**Present**. One individual was observed in non-native grassland land adjacent to Country Club Drive along the site's western boundary.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Birds (cont.)				
White-faced ibis	*Plegadus chihi*	--/WL County Group 1	Occurs in large marshes, with nesting colony hidden in inaccessible reedbed or willow-covered area.	**Very low.** Potential habitat absent from the site.
White-tailed kite	*Elanus leucurus*	--/FP County Group 1	Riparian woodlands and oak or sycamore groves adjacent to grassland.	**Present**. Single individual observed foraging over the site. Suitable nesting habitat occurs within the surrounding area.
Yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FC, BCC/SE County Group 1	Generally occurs along larger river systems, where it nests in riparian forest dominated by willows and cottonwoods.	**None**. Riparian habitat to the north of the site not suitable for this species.
Yellow-breasted chat	*Ictera virens*	--/SSC County Group 1	Prefers mature riparian woodlands.	**Present**. Single individual observed along Escondido Creek.
Yellow warbler	*Setophaga brewsteri*	--/SSC County Group 2	Found along riparian woodlands.	**Present**. One individual was observed along Escondido Creek.
Mammals				
American badger	*Taxidea taxus*	--/SSC County Group 2	Uncommon resident in California that occurs in herbaceous, shrub, and open stages of most habitats with dry, friable soils (Zeiner et al. 1990).	**Low**. Suitable open grassland habitat occurs on the site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Mammals (cont.)				
Big free-tailed bat	*Nyctinomops macrotis*	--/SSC County Group 2	A rare species in California (Zeiner et al. 1990). Prefers rugged, rocky canyons. Often forages over water. Roosts in crevices in high cliffs or rock outcrops.	**Low**. Suitable cliff habitat for roosting does not occur on the site.
California leaf-nosed bat	*Macrotus californicus*	--/SSC County Group 2	Prefers rocky, rugged terrain; roosts by day in caves, abandoned mines, and tunnels. Forages over nearby flats and washes.	**Very low.** Potential habitat not present on site.
Dulzura California pocket mouse	*Chaetodipus californicus femoralis*	--/SSC County Group 2	Variety of habitats including coastal scrub, chaparral, and grasslands in San Diego County. Associated with grass-chaparral edges	**High**. Suitable grassland and coastal sage scrub habitat occurs on the site.
Fringed myotis	*Myotis thysanodes*	--/-- County Group 2	Occurs in a wide variety of habitats, but optimal habitats are oak and juniper forests and desert scrub. Roosts in caves, mines, buildings, and crevices. Forages in open habitats, streams, lakes, and ponds; requires water.	**Very low.** Potential roosting habitat not present on site.
Long-eared myotis	*Myotis evotis*	--/-- County Group 2	Found in brush, woodland, and forest habitats, but coniferous woodlands and forests seem to be preferred. Roosts in rock crevices, buildings, under bark, and in snags. Feeds along habitat edges, in open habitat, and over water.	**Low.** No suitable roosting habitat occurs. This species prefers habitats absent from this site. Marginal foraging habitat exists; however, this species is not likely to forage over this site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Mammals (cont.)				
Long-legged myotis	*Myotis volans*	--/-- County Group 2	Feeds over water and over open habitats using denser woodland and forests for reproduction. Drinks regularly. Roosts in rock crevices, buildings, under tree bark, in snags, mines, and caves.	**Very low.** Potential roosting habitat not present on site.
Mountain lion	*Felis concolor*	--/-- County Group 2	Requires extensive areas of riparian vegetation and brushy stages of various habitats with interspersed irregular terrain, rocky outcrops, and tree/brush edges. Main prey is mule deer.	**Low**. No suitable cliff, ledge, or extensive riparian habitat occurs on the site. Also, the immediate area, though rural, is developed. Transient individuals possible, given the regional setting and proximity of large tracts of open space to the south.
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	--/SSC County Group 2	Occurs in open areas of coastal sage scrub and weedy growth, often on sandy substrates.	**High**. Suitable coastal sage scrub and weedy habitats occur on the site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Mammals (cont.)				
Pallid bat	*Antrozous pallidus*	--/SSC County Group 2	Locally common species of low elevations in California. Rocky, mountainous areas and near water; also found over more open, sparsely vegetated grasslands, and prefers foraging in the open. Uses three different roosts: 1) the day roost is in a warm, horizontal opening such as rock cracks; 2) the night roost is in the open, near foliage; and 3) the hibernation roost, which is in caves or cracks in rocks.	**Low**. Grasslands occur on the site, but the site is not mountainous.
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	--/SSC County Group 2	Semiarid desert lands. Day-roosts in caves, crevices in cliffs, and under the roof tiles of buildings. Uses a variety of arid habitats in southern California: pine-juniper woodlands, desert scrub, palm oases, desert wash, desert riparian, etc. Prefers rocky areas with high cliffs.	**None**. Suitable desert habitats do not occur on the site.
Ringtail	*Bassariscus astutus*	--/-- County Group 2	Various riparian habitats and in brush stands of moist forest and shrub habitats at low to middle elevations. Less common in wooded areas with hollow trees, sometimes around buildings.	**Low**. Riparian habitat to the north of site is of small size. Transient individuals possible due to more extensive habitat off-site.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Mammals (cont.)				
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	--/SSC County Group 2	Found primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present.	**High**. Suitable coastal sage scrub and grassland habitats occur on the site.
San Diego desert woodrat	*Neotoma lepida intermedia*	--/SSC County Group 2	Open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca.	**High**. Suitable coastal sage scrub habitat occurs on the site.
Small-footed myotis	*Myotis ciliolabrum*	--/-- County Group 2	Occurs in arid, upland habitats near water. Prefers open stands in forests and woodlands as well as brushy habitats. Feeds over and drinks from streams, ponds, springs, and stock tanks.	**Moderate**. Suitable brushy upland habitat occurs on the site; open water is present off site along Escondido Creek.
Southern grasshopper mouse	*Onychomys torridus ramona*	--/SSC County Group 2	Desert habitat is preferred, but it also occurs in coastal scrub and mixed chaparral. It is uncommon in valley foothill and montane riparian habitats.	**Low**. No suitable desert scrub habitat occurs on the site; however coastal scrub and mixed chaparral is present.
Southern mule deer	*Odocoileus hemionus*	--/-- County Group 2	Mule deer occupy to some extent almost all types of habitat within their range but, in general, they seem to prefer the more arid, open situations	**High**. Suitable open habitat occurs on the site, and the rural setting is appropriate for this species.

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Mammals (cont.)				
Spotted bat	*Euderma maculatum*	--/SSC County Group 2	Prefers sites with adequate roosting habitat (i.e., cliffs); feeds over water and along washes. Rare in California (Zeiner, et al. 1990).	**None**. No suitable mountainous terrain occurs on the site.
Stephens' kangaroo rat	*Dipodomys stephensi*	FE/ST County Group 1	Primarily annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	**Low.** Suitable habitat is present; however, the site does not occur within the species' known range.
Townsend's western big-eared bat	*Corynorhinus townsendii*	--/SSC County Group 2	Most abundant in mesic habitats. Considered uncommon in California (Zeiner, et al. 1990). Drinks water and requires caves, mines, tunnels, buildings, or other man-made structures for roosting.	**Low**. Limited suitable roosting habitat found on site.
Western mastiff bat	*Eumops perotis californicus*	--/SSC County Group 2	Suitable habitat consists of extensive open areas with abundant roost locations (crevices in cliff faces, high buildings, trees, tunnels).	**Low**. Limited suitable roosting habitat found on site.
Western red bat	*Lasiurus blossevillii*	--/-- County Group 2	Riparian areas dominated by cottonwoods, oaks, sycamores, and walnuts.	**Low**. Riparian habitat located off site dominated by willows (*Salix* spp.).

Appendix D (cont.)
SPECIAL STATUS ANIMAL SPECIES POTENTIAL TO OCCUR – HARMONY GROVE VILLAGE SOUTH

Common Name	Species Name	Status	Habitat Associations	Potential to Occur
Mammals (cont.)				
Western yellow bat	*Lasiurus xanthinus*	--/SSC	Found in wooded areas and desert scrub, particularly in palm trees. Rare visitor to San Diego County (Bats of San Diego County 2012).	**None**. No suitable cliff or rocky canyon habitat occurs on the site.
Yuma myotis	*Myotis yumanensis*	--/-- County Group 2	Open forests and woodland are optimal habitat. Closely tied to bodies of water for foraging and drinking. Roosts in buildings, mines, crevices, caves, and under bridges.	**Low**. No bodies of water present on site.

[1]Listing codes are as follows: FE = Federally Endangered; FT = Federally Threatened; FC= Federal Candidate species; BCC = Birds of Conservation Concern; SE = State of California Endangered; FP = State of California Fully Protected; WL = State of California Wait-Listed; SSC = State of California Species of Special Concern.

[2]County of San Diego Sensitive Animal List: Group 1 = Animals that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirements that must be met; Group 2 = Animals that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action; these species tend to be prolific within their suitable habitat types.

Appendix E

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

Appendix E
EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

FEDERAL, STATE, AND LOCAL CODES

U.S. Fish and Wildlife Service (USFWS)

FE	Federally listed endangered
FT	Federally listed threatened
FC	Federal candidate species
BCC	Birds of Conservation Concern (discussed in more detail, below)
BGEPA	Bald and Golden Eagle Protection Act (discussed in more detail below)

California Department of Fish and Wildlife (CDFW)

SE	State listed endangered
SR	State listed rare
ST	State listed threatened
SSC	State species of special concern
WL	Watch List

Fully Protected — Fully Protected species refer to all vertebrate and invertebrate taxa of concern to the Natural Diversity Data Base regardless of legal or protection status. These species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW.

County of San Diego

Plant sensitivity:

List A	Plants rare, threatened, or endangered in California or elsewhere
List B	Plants rare, threatened, or endangered in California but more common elsewhere
List C	Plants that may be quite rare, but more information is needed to determine rarity status
List D	Plants of limited distribution and are uncommon, but not presently rare or endangered

Animal sensitivity:

Group 1	Animals that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirements that must be met.
Group 2	Animals that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action. These species tend to be prolific within their suitable habitat types.

OTHER CODES AND ABBREVIATIONS

USFWS Bald and Golden Eagle Protection Act (BGEPA)

In 1782, Continental Congress adopted the bald eagle as a national symbol. During the next one and a half centuries, the bald eagle was heavily hunted by sportsmen, taxidermists, fisherman, and farmers. To prevent the species from becoming extinct, Congress passed the Bald Eagle Protection Act in 1940. The Act was extremely comprehensive, prohibiting the take, possession, sale, purchase, barter, or offer to sell, purchase, or barter, export or import of the bald eagle "at any time or in any manner."

In 1962, Congress amended the Eagle Act to cover golden eagles, a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. The golden eagle, however, is accorded somewhat lighter protection under the Act than the bald eagle. Another 1962 amendment authorizes the Secretary of the Interior to grant permits to Native Americans for traditional religious use of eagles and eagle parts and feathers.

USFWS Birds of Conservation Concern (BCC)

This report from 2002 aims to identify accurately the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS' highest conservation priorities and draw attention to species in need of conservation action. USFWS hopes that by focusing attention on these highest priority species, the report will promote greater study and protection of the habitats and ecological communities upon which these species depend, thereby ensuring the future of healthy avian populations and communities. The report is available online at http://migratorybirds.fws.gov/reports/bcc2002.pdf.

Appendix E (cont.)
EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

OTHER CODES AND ABBREVIATIONS (cont.)

California Native Plant Society (CNPS) Ranks

Ranks

1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere

1B Plants Rare, Threatened, or Endangered in California and Elsewhere

2A Plants Presumed Extirpated in California, But Common Elsewhere

2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3 Plants About Which More Information is Needed

4 Plants of Limited Distribution

Threat Ranks

0.1 Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)

0.2 Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)

0.3 Not very threatened in California (less than 20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)

A "CA Endemic" entry corresponds to those taxa that only occur in California.

All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no extension. Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.

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Appendix F

SITE PHOTOGRAPHS

Photo 1: View of existing low-water crossing for Country Club Drive over Escondido Creek in northern portion of the study area, facing south. A new bridge is proposed at this location that will remove the existing low-water crossing, improve wildlife movement functions, and restore riverine hydrology.

Photo 2: Downstream view at existing low-water crossing for Country Club Drive over Escondido Creek in northern portion of the study area, facing west.

Photo 3: Upstream view at existing low-water crossing for Country Club Drive over Escondido Creek in northern portion of the study area, facing east.

Photo 4: Overview of northern portion of the study area, facing north. Non-native grassland, typical of the majority of the study area, is depicted in foreground. Escondido Creek and active construction for Harmony Grove Village is depicted in background.

Photo 5: Overview of northern half of the study area, facing north.

Photo 6: View of Diegan coastal sage scrub and coastal sage-chaparral scrub in eastern portion of the study area, facing east.
Private road and adjacent residence to the east are also depicted.

Photo 7: View of Diegan coastal sage scrub in eastern portion of the study area, facing southeast. An active gnatcatcher nest was confirmed in the center mid-ground of the photo, at the scrub-chaparral interface.

Photo 8: Overview of southeastern portion of the study area, facing south.

Photo 9: Overview of central portions of the study area, facing west. Diegan coastal sage scrub is depicted in foreground, non-native grassland in mid-ground, and chaparral in background.

Photo 10: Overview of western portions of the study area, facing southwest. Old home site is depicted, along with non-native grassland and non-native vegetation.

Photo 11: Overview of southwestern portions of the study area, facing southwest. Sparse coastal sage scrub and chaparral to be impacted is depicted in the foreground. Intact chaparral and oak woodland to be placed in biological open space is depicted in the background.

Photo 12: View of coast live oak woodland to be placed in biological open space in southwestern portion of the study area, facing southwest.

Photo 13: Overview of habitat to be placed in biological open space in southern half of the study area, facing north. Photo taken from Harmony Grove Overlook in Del Dios Highlands Preserve. The project's biological open space preserve will connect with the Del Dios Highlands Preserve.

Appendix G

SUMMARY OF CONSISTENCY WITH 2009 DRAFT MSCP NORTH COUNTY PLAN GOALS FOR HARMONY GROVE CORE AREA

Harmony Grove Village South

Summary of Consistency with 2009 Draft MSCP North County Plan

Analysis against Conservation Goals/Targets Identified for Harmony Grove Core Area	
Conservation Goal/Target	**Project Consistency**
Goal 1 – Protect the following sensitive species: Encinitas baccharis, including different genders to ensuring reproductive capability; Wart-stem lilac, particularly dense stands.	No Encinitas baccharis occurs on site. The project would conserve 21,150 (91%) of the on-site population of 23,113 wart-stemmed ceanothus within 35.0 acres of biological open space.
Goal 2 – Minimize impacts to the following sensitive habitats: Chaparral on mafic soils supporting sensitive plant species, such as Parry's tetracoccus.	The project minimizes impacts and has been specifically designed to avoid and preserve on-site stands of chaparral supporting wart-stem ceanothus, summer holly, and San Diego sagewort. Parry's tetracoccus does not occur on site. Las Posas soils are reported as occurring according to USDA soil survey data; however, the vegetation observed in these areas is not indicative of mafic chaparral, as described in section
Goal 3 – Protect cliff-faces utilized by sensitive species, such as raptors, swallows, and bats.	No cliff face habitat occurs on site.
Goal 4 – Protect the Escondido Creek floodplain. Conserve riparian and upland habitat along Escondido Creek for water quality and sensitive species such as: Southwestern pond turtles and least Bell's vireo. Maintain natural flow regimes to maintain functionality of the San Elijo Lagoon.	The project has been specifically designed to avoid the Escondido Creek floodplain, with avoidance buffers of 100 feet from the edge of riparian canopy protected by an additional 100 feet of limited building zone easement, for a total setback of 200 feet. The project would enhance the biological and hydrologic function of Escondido Creek at the Country Club Drive crossing to a condition superior to what currently exists.
Goal 5 – Maintain connectivity, particularly east-west, along Escondido Creek canyon by minimizing road and maintaining natural habitat. This corridor should span the canyon, rim to rim, as much as possible. Maintain connectivity through natural and agricultural lands for wildlife movement of large and medium sized mammals between preserved habitats.	The project conserves east-west connectivity along Escondido Creek Canyon by maintaining natural habitat and further constraining widths beyond that which already exists. The project conserves wildlife movement patterns across the southern portion of the site and within existing preserved lands and rural-zoned parcels immediately east of the site to access Escondido Creek.
Goal 6 – Removal of invasive, non-native species (e.g., Tamarix, Arundo, brown-headed cowbirds, crayfish, bull frogs, etc.), particularly to enhance habitat quality along Escondido Creek.	The project includes active management of biological open space areas and would enhance the biological and hydrologic function of Escondido Creek.
Goal 7 – Link future preserves to create a large contiguous preserve area.	The project contributes biological open space that is contiguous with existing core preserve area for the Del Dios Highlands Preserve and Elfin Forest Recreational Area. The project does not impact existing linkages to the east that provide connection to existing preserves along Escondido Creek and within Harmony Grove Village to the north.

Appendix H

LEAST BELL'S VIREO SURVEY REPORT

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August 27, 2014 KOV-01

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

Subject: 2014 Least Bell's Vireo (*Vireo bellii pusillis*) Survey Report for the Harmony Grove Parcels, San Diego County, California.

Dear Ms. Love:

This letter presents the results of a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence survey for the least Bell's vireo (*Vireo bellii pusillus*; LBVI) conducted by HELIX Environmental Planning, Inc. (HELIX) for the Harmony Grove Parcels, herein referred to as the property, comprised of Assessor's Parcel Numbers 235-011-06, 238-021-08, -09, and -10. This letter describes the survey methods and results and is being submitted to the USFWS in accordance with protocol survey guidelines.

PROJECT LOCATION

The approximately 111-acre property is located within an unincorporated portion of San Diego County near the community of Harmony Grove, just west of Interstate 15, and southeast of Country Club Drive (Figure 1). The property is situated in Section 31 of Township 12 South, Range 2 West on the Rancho Santa Fe U.S. Geological Survey 7.5-minute quadrangle map (Figure 2). The property is currently being evaluated for development and conservation opportunities.

METHODS

The survey consisted of eight site visits conducted by qualified HELIX biologists Tara Baxter (with Jenna Hartsook as a supervised individual), Stacy Nigro, and Laura Moreton, between April 25, 2014, and July 14, 2014 (Table 2). The survey area consisted of approximately 5.6 acres of suitable LBVI habitat associated within a short section of Escondido Creek that occurs

within 500 feet of potential development planned within the property (Figure 3). The survey area is generally characterized by southern willow riparian forest habitat.

Table 2
SURVEY INFORMATION

DATE	BIOLOGIST	TIME (start/stop)	APPROXIMATE ACRES (ac) COVERED/ SURVEY RATE	Weather Conditions (start/stop)
04/25/13	Tara Baxter	0830/1100	5.6 ac/2.2 ac per hr	60ºF, wind 3-5 mph, 100% clouds 68ºF, wind 3-5 mph, 25% clouds
05/06/13	Stacy Nigro	0840/0955	5.6 ac/4.5 ac per hr	65ºF, wind 3-6 mph, 50 % clouds 69ºF, wind 2-8 mph, 50 % clouds
05/21/13	Tara Baxter and Jenna Hartsook*	0815/1045	5.6 ac/2.2 ac per hr	63°F, wind 3-5 mph, 20% clouds 70°F, wind 2-4 mph, 20% clouds
06/02/13	Stacy Nigro	0820/0955	5.6 ac/3.7 ac per hr	76°F, wind 0-2 mph, 30% clouds 80°F, wind 0-2 mph, 30% clouds
06/12/13	Tara Baxter	0815/1015	5.6 ac/2.8 ac per hr	67°F, wind 3-5 mph, 0% clouds 75°F, wind 2-4 mph, 0% clouds
06/23/13	Tara Baxter	0800/1015	5.6 ac/2.5 ac per hr	64°F, wind 0-2 mph, 90% clouds 73°F, wind 1-3mph, 0% clouds
07/02/13	Laura Moreton	0715/0920	5.6 ac/2.8 ac per hr	67°F, wind 0-1 mph, 100% clouds 70°F, wind 0-1 mph, 89% clouds
07/14/13	Tara Baxter	0740/1000	5.6 ac/2.5 ac per hr	68°F, wind 0-2 mph, 100% clouds 74°F, wind 0-2 mph, 95% clouds

*Supervised individual

The surveys were conducted by walking along the edges of, as well as within, potential LBVI habitat in the survey area while listening for LBVI and viewing birds with the aid of binoculars. The survey route was arranged to ensure complete survey coverage of habitat with potential for occupancy by LBVI.

VEGETATION COMMUNITY DESCRIPTIONS

Two vegetation communities or land use types have been identified within the survey area along Escondido Creek that provide suitable habitat for LBVI: southern willow riparian forest and coastal live oak woodland. These vegetation communities are described below.

Southern Willow Riparian Forest

Southern willow riparian forest is an open to dense riparian community that is dominated by willow species (*Salix* spp.). Willows require moist, bare mineral soil for germination and establishment. This community occurs along large stream courses where there is an abundant supply of water at or near the surface for most of the year. Though southern willow riparian woodland and forest may not differ in floristic composition from some riparian scrub communities, it does so in physiognomy. The absence of large, frequent disturbances, usually in the form of floods, allows the component tree species to attain a sizable height.

SURVEY RESULTS

Up to four LBVI individuals were observed or detected at three locations within the survey area during the year 2014 surveys (Figure 3). A single, unpaired male was observed primarily using habitat immediately east of Country Club Drive during all of the surveys, except for the last survey on July 14, 2014. On May 21, 2014, a male and female LBVI were observed immediately west of Country Club Drive; however, these individuals were only observed on a single occasion and were confirmed to not be associated with a breeding territory within the survey area. The female LBVI was not observed during any other survey. A potential fourth LBVI was audible at the far western portion of the survey area. This individual was observed a second time, singing in the same area, on June 23, 2014. Although not conclusively determined, it is believed that this individual could have been another unpaired male or the same unpaired male observed consistently during the survey effort.

No LBVI breeding sign or activity was observed within the survey area during any of the surveys. The temporary influx of LBVI into the survey area beginning on the May 21, 2014 survey followed the 2014 "Cocos Fire" that devastated portions of the Harmony Grove area. This wildfire event likely displaced birds in the surrounding area.

In addition to LBVI, several yellow warblers (*Dendroica petechia*; YEWA) were observed during the survey effort. YEWA is not federally listed, but is a California state species of special concern (SSC) and San Diego County sensitive animal. YEWA were observed during all eight surveys. Yellow-breasted chats (*Icteria virens*; YBCH), also not federally listed, but a SSC and San Diego County sensitive animal, were observed within the survey area during four of the eight surveys. Last, brown-headed cowbird (*Molothus ater*; BHCO), a nest parasite of the LBVI, was observed during six of the eight surveys (Table 3; Figure 3).

Table 3 SURVEY RESULTS				
DATE	**Number of LBVI Observations**	**Number of BHCO Observations**	**Number of YEWA Observations**	**Number of YBCH Observations**
04/25/13	1	0	<5	0
05/06/13	1	0	<5	1
05/21/13	3	5	>5	1
06/02/13	2	2	2	2
06/12/13	1	>5	>5	1
06/23/13	2	>5	>5	0
07/02/13	1	0	1	0
07/14/13	0	<10	<5	0

CERTIFICATION

I certify that the information in this survey report and attached exhibits fully and accurately represent my work. Please contact me at (619) 462-1515 should you have any questions.

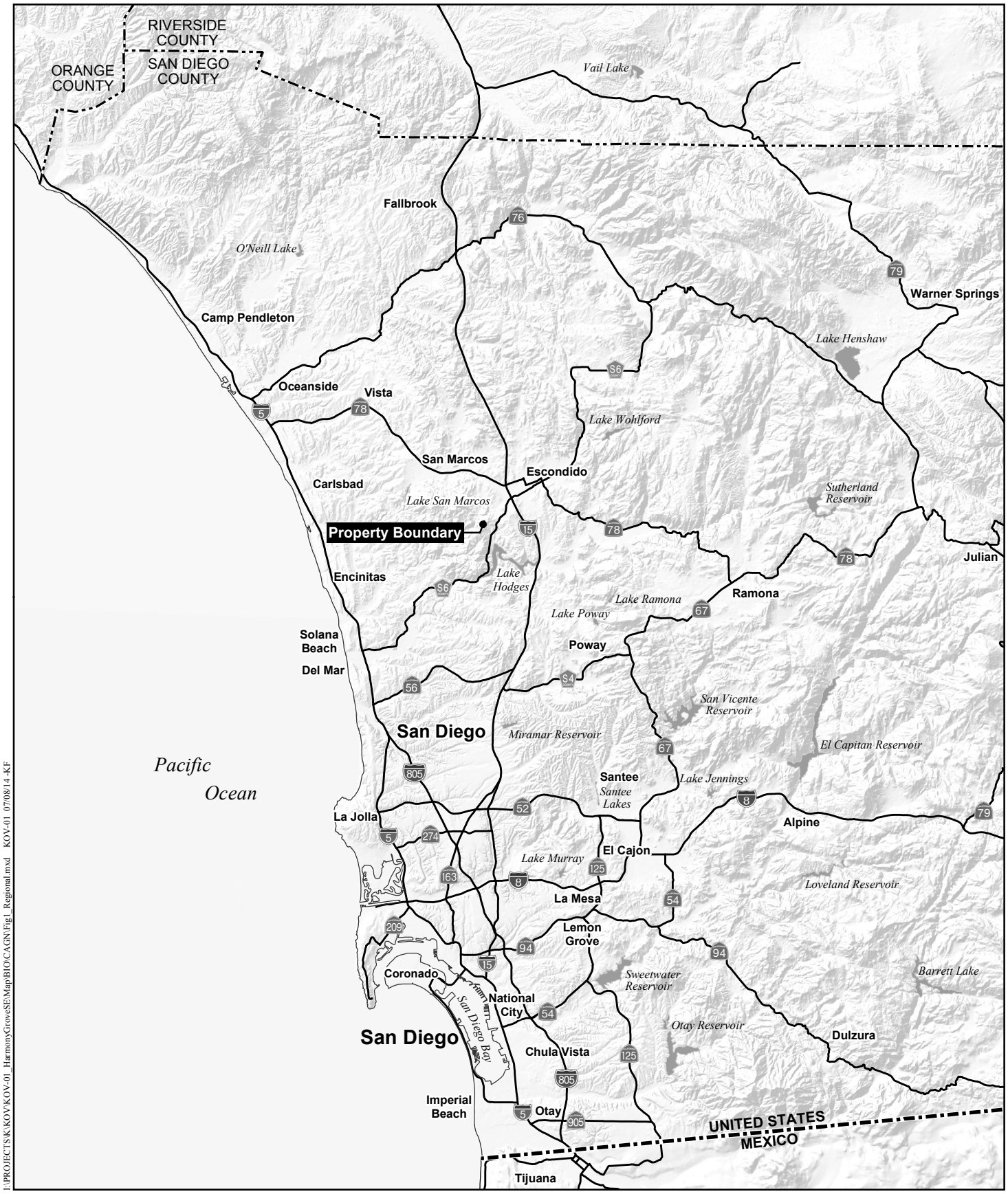
Sincerely,

Tara Baxter
Biologist

Stacy Nigro
Biologist

Laura Moreton
Biologist

Enclosures:
Figure 1 Regional Location Map
Figure 2 Project Location Map
Figure 3 Least Bell's Vireo Survey Area and Avian Locations
Attachment A Animal Species Observed or Detected



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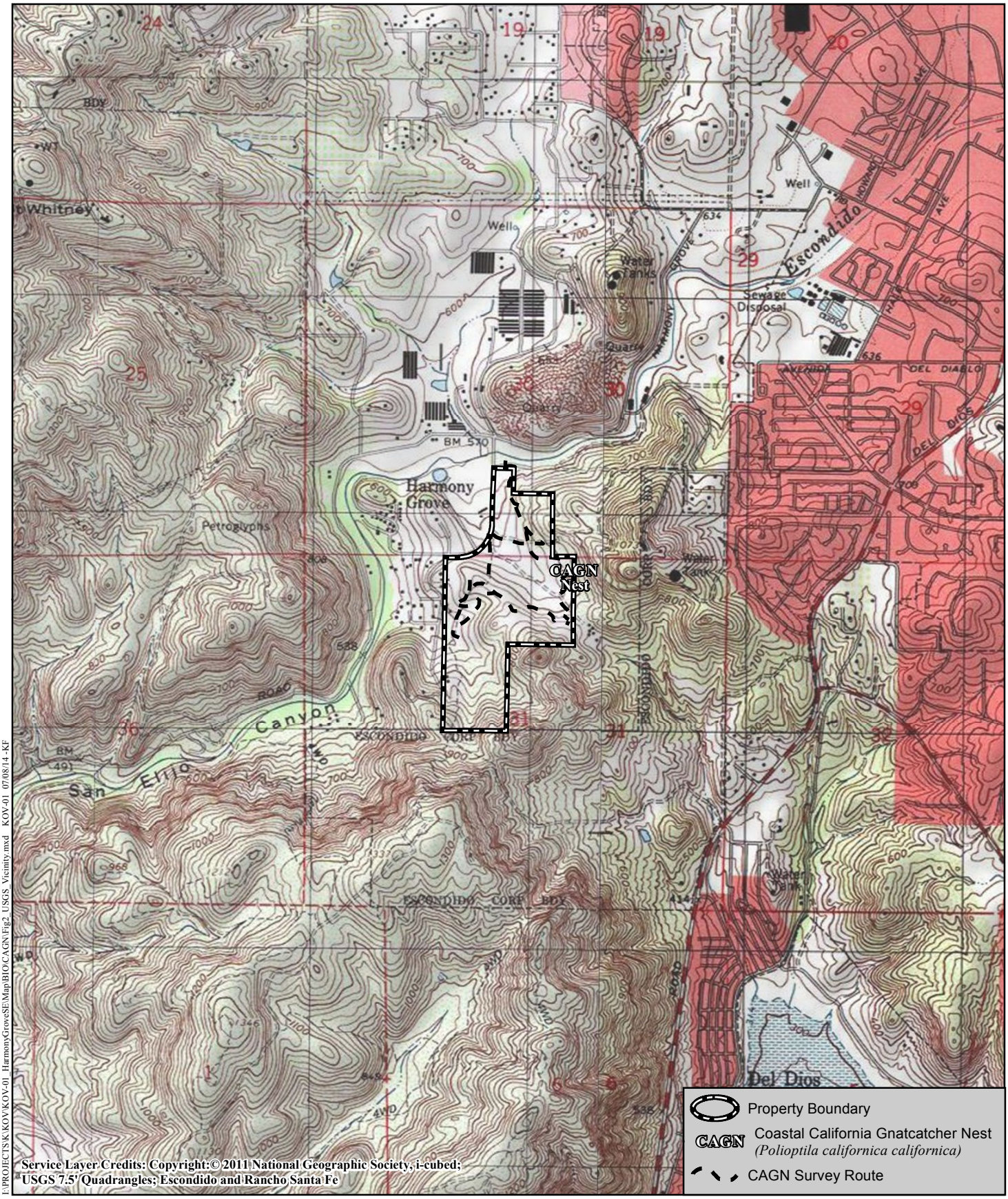
Regional Location Map

SE OF HARMONY GROVE

HELIX Environmental Planning

N 0 8 Miles

Figure 1



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Project Vicinity Map

SE OF HARMONY GROVE

HELIX Environmental Planning

N 0 2,000 Feet

Figure 2