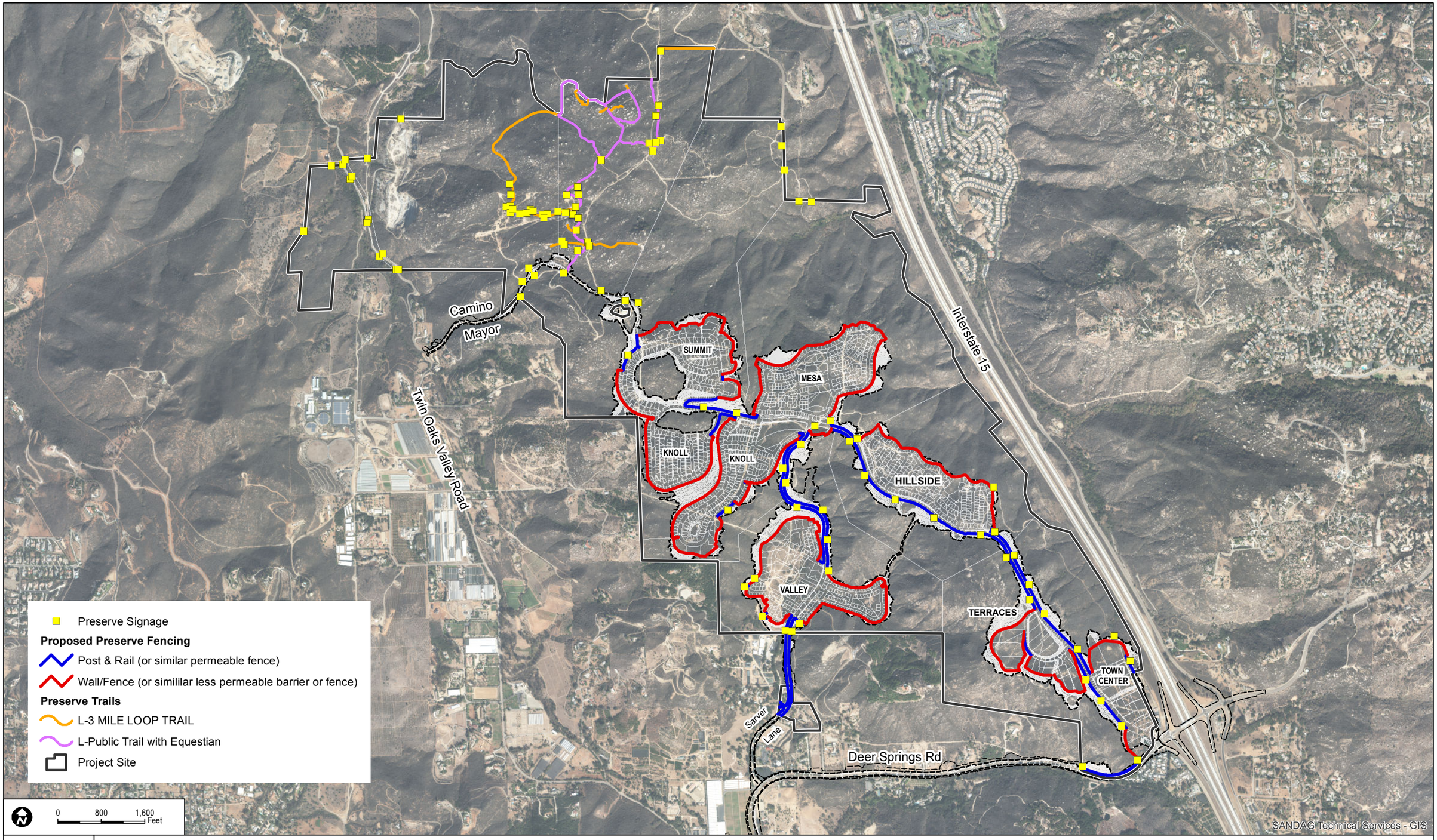

DUDEK

7608-01

SOURCE: Bing 2016; Fuscoe Engineering 2016

FIGURE 13

Proposed Biological Open Space/Conceptual Signage and Fencing

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4 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

4.1 Guidelines for the Determination of Significance

The County of San Diego's (County's) *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's Guidelines (County of San Diego 2010a).

Guideline 4.2 The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG[6] or USFWS.

A. Project-related grading, clearing, construction, or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5 [County of San Diego 2010b], excluding those without a mitigation ratio) on or off the project Site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No de minimus standard is specified under which an impact would not be significant; however, minor impacts to native or naturalized habitat that is providing essentially no biological habitat or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant. For example, an impact to native or naturalized upland habitat under 0.1 acre in an existing urban setting may be considered less than significant (depending on a number of factors). An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in the project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Just because a particular habitat area is isolated, for example, does not necessarily mean that impacts to the area would not be significant (e.g., vernal pools). An area that is disturbed or partially developed may provide a habitat "island"

[6] Although the California Department of Fish and Game changed its name to California Department of Fish and Wildlife effective January 1, 2013, this language is taken directly from the County's Guidelines and has not been modified.

that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG), and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

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 historically low groundwater levels.

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

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

- A 50-foot wetland buffer would be appropriate for lower quality RPO-wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25 percent.
- A wetland buffer of 50 to 100 feet is appropriate for moderate- to high-quality RPO-wetlands that support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater

than 25 percent) with highly erosive soils. Within the 50- to 100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.

- Wetland buffers of 100 to 200 feet are appropriate for RPO-wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species, or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.
- Buffering of greater than 200 feet may be necessary when an RPO-wetland is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) that could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO-wetland buffers, actions may be subject to other laws and regulations (such as the Endangered Species Act) that require greater wetland buffer widths.

4.2 Analysis of Project Effects

The proposed project vegetation and land cover impacts, including riparian and other sensitive habitat impacts are analyzed in Section 2.2. The applicable County Guidelines are applied in this section. The project will result in significant impacts under the guidelines presented in Section 4.1 for the following reasons.

4.2.1 Project Effects Relevant to Guideline 4.2.A (Impacts to Sensitive Upland Habitat)

Impact V-1: Temporary Direct Impacts to Special-Status Upland Vegetation

Short-term, construction-related, or temporary direct impacts to special-status upland vegetation communities would primarily result from construction activities and are analyzed in Section 2.2.1.1.

The proposed project would result in either 8.7 or 9.2 acres (Deer Springs Road Option A and Option B, respectively) of on-site temporary impacts associated with grading and improvements to Deer Springs Road. The amount of temporary impacts would be determined by the final Deer Springs Road option approved for the project. Of the temporary impacts, 8.5 to 9.0 acres would impact special-status vegetation communities (see Table 2-1). In addition, clearing, trampling, or

grading of special-status vegetation communities outside designated construction zones could occur in the absence of avoidance and mitigation measures. Impacts related to other off-site improvements of roads and sewer facilities would in an additional 8.8 acres of temporary impacts (Table 2-3). Of those impacts 3.9 acres would be to sensitive upland vegetation.

Potential temporary direct impacts to sensitive upland vegetation communities on-site and off-site would be significant **(Impact V-1)**.

The project would require construction monitoring to avoid unintentional impacts to species and habitat impacts (M-BIO-1); construction areas would have temporary construction fencing to avoid inadvertent habitat destruction (M-BIO-2); there would be monitoring verification through preparation of a biological monitoring report (M-BIO-3); and vegetation would be replaced through a vegetation plan where possible for temporary vegetation impacts (M-BIO-6); and outdoor night lighting would be in compliance with the Light Pollution Code (M-BIO-7).

Impact V-2: Permanent Direct Impacts to Special-Status Upland Vegetation

Permanent direct impacts to special-status upland vegetation communities are analyzed in Section 2.2.1. There are permanent direct impacts to 776.6 acres of onsite vegetation communities and land covers, including permanent direct impacts to 757.2 acres of special-status upland vegetation communities as a result of the proposed project (see Table 2-4). There are also permanent off-site direct impacts associated with Deer Springs Road improvements which total 47.5 acres (Option A), including 5.7 acres of special-status upland vegetation (see Table 2-5); or 50.2 acres (Option B), including 7.1 acres of special-status upland vegetation (see Table 2-5). There are additional off-site impacts that would occur to 23 acres, including 6.8 acres of special-status upland vegetation (see Table 2-6). The proposed project would permanently impact up to 757.2 acres of sensitive upland vegetation. Permanent direct impacts to special-status upland vegetation communities would be considered a significant impact **(Impact V-2)**.

Tables 2-3 and 2-4 in Section 2.2 summarize permanent direct impacts to vegetation communities and land covers found in the project Site. Figures 11A–11E illustrate the distribution of biological resources on Site and the locations where proposed impacts would occur. Table 4-1, Summary of Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas, summarize the impacts and required mitigation for special-status vegetation communities in the project Site. Jurisdictional resources are discussed in Section 4.2.2.

Table 4-1
Summary of Permanent Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas (Acres)

Habitat Types/Vegetation Communities	On-Site Existing Acreage	Total On-Site Impacts[1]	Total Off-Site Impacts[2]	Mitigation Ratio	Mitigation Required	On-Site Open Space[3]	Off-Site Mitigation Area	Mitigation Excess/ (Deficit)
Coastal Scrub								
Diegan coastal sage scrub (including disturbed)*	68.2	45.6	0.5	2:1	92.2	22.6	106.4	36.8
Coastal sage scrub – Baccharis dominated (including disturbed)	2.0	1.5	—	2:1	3.0	0.5	—	(2.5)
Flat-topped buckwheat – disturbed*	1.7	0	—	2:1	0	1.7	—	1.7
Coastal sage – chaparral transition*	7.8	7.4	1.7	2:1	18.2	0.4	—	(17.8)
Subtotal	*79.7*	*54.5*	*2.2*	*n/a*	*113*	*25.2*	*106.4*	18.2
Chaparral								
Chamise chaparral[4]*	—	—	—	—	—	—	19.7	19.7
Granitic southern mixed chaparral (including disturbed)*	1,700.7	626.9	6.3	0.5:1	316.6	1,073.8	—	757.2
Mafic southern mixed chaparral*	58.8	0.8	—	3:1	2.4	58.0	—	55.6
Scrub oak chaparral*	44.3	39.2	—	0.5:1	19.6	5.1	—	(14.5)
Subtotal	*1,803.8*	*666.9*	*6.3*	*n/a*	*338.6*	*1,136.9*	19.7	*818.0*
Woodland								
Coast live oak woodland*	9.1	6.5	2.8	3:1	27.9	2.6	—	(25.3)
Engelmann Oak Woodland - Open[4]*	—	—	—	n/a	—	—	29.0	29.0
Subtotal	9.1	6.5	2.8	*n/a*	26.1	2.6	29.0	3.7
Riparian								
Freshwater marsh*	0.1	—	—	3:1	—	0.1	—	0.1
Southern coast live oak riparian forest*	5.2	1.9	0.8	3:1	8.1	3.3	—	(4.8)
Mulefat scrub*	0.2	0.1	0.03	3:1	0.4	0.1	—	(0.3)
Southern sycamore-alder riparian woodland*[4]	—	—	—	—	—	—	7.9	7.9
Southern willow scrub*	2.5	0.1	0.5	3:1	1.8	2.4	—	0.6

Table 4-1
Summary of Permanent Impacts, Mitigation, and Open Space for Vegetation Communities and Jurisdictional Areas (Acres)

Habitat Types/Vegetation Communities	On-Site Existing Acreage	Total On-Site Impacts[1]	Total Off-Site Impacts[2]	Mitigation Ratio	Mitigation Required	On-Site Open Space[3]	Off-Site Mitigation Area	Mitigation Excess/ (Deficit)
Southern willow scrub/tamarisk scrub*	0.3	—	—	3:1	—	0.3	—	0.3
Arundo-dominated riparian	—	—	0.1	3:1	0.3	—	—	(0.3)
Subtotal	*8.3*	*2.1*	*1.4*	*n/a*	*10.6*	*6.2*	*7.9*	*3.5*
Grassland								
Valley needlegrass grassland[4]*	—	—	—	—	—	—	8.5	8.5
Non-native grassland*	16.1	15.3	2.6	0.5:1	9.0	0.8	33.8	25.7
Subtotal	16.1	15.3	2.6	n/a	9.0	0.8	42.3	34.2
Non-native Communities and Land Covers								
Agriculture	—	—	2.0	None	—	—	—	(2.0)
Eucalyptus woodland	0.5	—	2.0	None	—	0.5	3.2	1.7
Intensive agriculture	<0.0	<0.0	1.4	None	—	—	—	(1.4)
Extensive agriculture	—	—	4.5	None	—	—	—	(4.5)
Orchard and vineyards	2.0	1.0	1.9	None	—	1.0		(1.9)
Urban/developed	9.2	9.2	40.8	None	—	—	0.1	(49.9)
Disturbed habitat	57.0	21.0	5.1	None	—	36.0	3.3	13.2
Non-native woodland	—	—	0.2	None	—	—	—	(0.2)
Subtotal	*68.7*	*31.2*	*57.9*	—	*0*	*37.5*	*6.6*	*(35.5)*
Total[1]	**1,985.6**	**776.6**	**73.2**	**n/a**	**497.3**	**1,209.1**	**211.8**	**923.6**
Other								
RPO wetland buffer[5]	30.2	8.7	3.9	n/a	n/a	n/a	28.09	n/a
Oak Root Zone[5]	32.9	11.2	8.4	3:1	58.8	21.7	16.8	-2.1
Non-wetland waters (ephemeral and intermittent)[5]	5.33	1.41	0.16	1:1	1.59	3.92	—	n/a

1 Totals may not add due to rounding.
2 This includes impacts for Deer Springs Road Option B and all other off-site impacts.
3 The open space acreage includes the on-site temporary impacts since they would be restored and conserved in permanent open space.

[4] These communities occur in the off-site Ramona mitigation site and are described in Appendix J.
[5] These features are overlays to the vegetation community layer and are not counted toward the total existing acreage.
* Considered special-status by the County (2010b).
3:1 for riparian areas includes a 1:1 creation and 2:1 enhancement requirement.

The project's proposed preservation of existing populations of sensitive species, suitable habitat, and special-status vegetation communities would conserve approximately 1,209.1 acres of habitat of equivalent function and value on the project Site. In addition, the project would preserve 211.8 acres within the off-site Ramona mitigation site (M-BIO-8A through M-BIO-8E). Together, the on-site and off-site preservation would adequately mitigate the project's impacts to sensitive-status upland habitat.

The project would not result in net mitigation deficit for any vegetation communities. Impacts to scrub oak chaparral would be mitigated through the on-site preservation of granitic southern mixed chaparral, which serves the same habitat function as scrub oak chaparral. The scrub oak chaparral on Site is surrounded by southern mixed chaparral. Areas mapped as scrub oak chaparral are largely composed of stands of scrub oaks, but chamise and other chaparral species, such as a variety of chaparral species including chamise, scrub oak, manzanita, and ceanothus, are also intermixed. Since these vegetation communities contain overlapping plant species, they provide habitat for similar plant and wildlife species. The preservation of 2.4 acres of southern willow scrub would serve as mitigation for impacts to 1 acre of mulefat scrub and 0.1 acre of arundo-dominated riparian. The mulefat scrub within the development footprint occurs along a dirt road isolated from other riparian habitat and does not provide habitat for sensitive wildlife species. The arundo-dominated habitat is composed of a non-native invasive species that is not known to support sensitive plant or wildlife species. Since the mule fat scrub is isolated and the arundo-dominated habitat is a non-native vegetation community, preservation of a continuous area of native habitat would be considered greater than like functioning. The preservation of southern willow scrub areas that are located adjacent to native habitat areas support more mature riparian scrub species and provide better foraging and cover for wildlife species.

This impact would be mitigated to less than significant through implementation of the above mitigation measures.

4.2.2 Project Effects Relevant to Guideline 4.2.B (Impacts to Wetlands and Riparian Habitats)

Any adverse change to jurisdictional wetlands or riparian habitats (i.e., jurisdictional resources) would be significant and they would result from construction activities, as analyzed in Section 2.5. Section 7.2.3 discusses Guideline 4.5.C, which pertains specifically to RPO Wetlands.

Impact V-3: Temporary Direct Impacts to Jurisdictional Resources

As described in Section 2.5.1.1, there is 0.06 acre of impacts to ACOE/RWQCB/CDFW non-wetland waters associated with temporary grading. There are no temporary direct impacts to

resources under the combined jurisdiction of ACOE/RWQCB/CDFW/County within the on-Site components of the project.

Temporary off-site impacts are summarized in Table 2-10. Off-site temporary grading impacts are the same for both Deer Springs Road options and includes 0.52 acre of temporary impacts to southern coast live oak riparian forest (CDFW riparian habitat and County RPO), and 0.01 acre of non-wetland waters (ACOE/RWQCB/CDFW). Additional impacts from off-site road improvements include impacts to 0.01 acre of non-wetland waters and less than 0.01 acre of southern willow scrub (CDFW only) associated with Camino Mayor and 0.04 acre of impacts to non-wetland waters and 0.39 acre of impacts to coast live oak woodland (CDFW only) associated with Sarver Lane. Mar Vista and I-15 interchange improvements would result in less than 0.01 acre and 0.12 acre of temporary impacts to coast live oak woodland which is assumed to be under the jurisdiction of all three agencies as well as the County.

Temporary wetland impacts are considered significant (**Impact V-3**), and they would be mitigated to less than significant through implementation of mitigation measure M-BIO-6 (revegetation plan) (Appendix J) and M-BIO-12, which requires permits from the appropriate federal and state agencies to impact jurisdictional resources. Revegetation would occur at a 1:1 ratio for the temporary impact of 0.52 acre of southern coast live oak riparian forest, 0.04 acre of southern willow scrub, 0.51 acre of coast live oak woodland, and 0.05 acre of non-wetland waters.

Impact V-3: Permanent Direct Impacts to Jurisdictional Resources

Table 2-11 quantifies the on-site permanent direct impacts to jurisdictional resources. There are permanent direct impacts to 2.13 acres of CDFW/County RPO wetlands and impacts to 3.30 acres of CDFW-only riparian habitat from the proposed project. These impacts include both development and FMZ activities. There are additional impacts to 1.41 acres of ACOE/RWQCB/CDFW non-wetland waters.

For permanent off-site impacts associated with Deer Springs Road, both options are identical. Both options would result in impacts to 0.09 acre of ACOE/RWQCB/CDFW/County resources including 0.06 acre of southern willow scrub and 0.03 acre of mulefat scrub. In addition, 0.83 acre of CDFW and County jurisdictional southern coast live oak riparian forest would also be permanently impacted. Both options include 0.08 acre of permanent impacts to non-wetland waters (ACOE/RWQCB/CDFW). Other off-site road improvements would result in impacts to jurisdictional resources including 0.06 acre of impacts to non-wetland waters and 0.06 acre of impacts to southern willow scrub (CDFW riparian habitat/County RPO) associated with Camino Mayor. Improvements to Sarver Lane would result in impacts to less than 0.01 acre of non-wetland waters and 0.56 acre of CDFW only coast live oak woodland while impacts associated with the sewer improvements include 0.35 acre of southern willow scrub and 0.14 acre of arundo

dominated riparian. Permanent impacts resulting from improvements to the I-15 interchange include 0.02 acre of coast live oak woodland which is assumed to be under the jurisdiction of all three agencies as well as the County (Table 2-12).

Permanent impacts to County RPO wetlands, CDFW riparian habitat, ACOE/RWQCB wetlands and non-wetland waters of the United States/state are considered a significant impact **(Impact V-4)**. This project includes habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities (M-BIO-8A); easement for the open space (M-BIO-8B); limited building zone easement (M-BIO-8C); development of a resource management plan (M-BIO-8D); open space fencing and signage (M-BIO-8E); and obtaining permits from the appropriate federal and state agencies to impact jurisdictional resources (M-BIO-12). Overall, creation of 1:1 ratio and enhancement of 2:1 ratio for the impact is required for achieving "no-net loss" of wetlands required through agency permitting (M-BIO-12). Additionally, M-BIO-8D includes preparation and implementation of an RMP, which would provide specific management for the RPO wetlands including exotic plant control; non-native predator/pest control; prohibition of off-road vehicles; prohibition of herbicides and other chemicals that can affect wetlands; and prohibition of manipulating, impounding, or altering any natural watercourse, body of water, or water circulation on the open space, except as specified for restoration activities.

This impact would be mitigated to less than significant through implementation of the above mitigation measures.

4.2.3 Project Effects Relevant to Guideline 4.2.C (Impacts to Groundwater Table)

Water supply for the proposed project would be supplied by Vallecitos Water District. No ground-water pumping would occur; therefore, there are no impacts to the groundwater table.

4.2.4 Project Effects Relevant to Guideline 4.2.D (Indirect Impacts)

Impact V-5: Temporary Indirect Impacts to Special-Status Vegetation Communities and Jurisdictional Resources

Any indirect impacts that would cause adverse changes to special status vegetation communities and jurisdictional resources over the long term would be significant; typically, they result from errant construction activities and from long-term edge effects analyzed in Sections 2.2.2 and 2.5.2.

Due to the large scale of the project, short-term, construction-related indirect impacts, such as generation of fugitive dust, changes in hydrology resulting from construction, and the introduction of chemical pollutants (including herbicides) to special-status vegetation

communities and jurisdictional resources would be considered a potentially significant impact **(Impact V-5)**. The project includes biological monitoring to avoid unintentional species and habitat short-term, construction-related indirect impacts (M-BIO-1); temporary construction fencing (M-BIO-2); monitoring verification through preparation of a biological monitoring report (M-BIO-3); retaining the required federal and state agency permits for impacts to jurisdictional resources (M-BIO-12). With these measures short-term, construction-related impacts would be mitigated to less than significant through implementation of the above mitigation measures.

Impact V-6: Permanent Indirect Impacts to Special-Status Vegetation Communities and Jurisdictional Resources

Potential long-term, permanent indirect impacts to special-status vegetation communities and jurisdictional resources as a result of the proposed project are analyzed in Sections 2.2.2 and 2.5.2, and include fugitive dust, habitat fragmentation, chemical pollutants, altered hydrology, non-native invasive species, and alteration of the natural fire regime. Potential long-term, indirect impacts to special-status vegetation communities and jurisdictional resources would be considered a significant impact **(Impact V-6)**. The project includes prevention of invasive species through review of landscaping plants (M-BIO-4); edge effects and other indirect impacts would be minimized through preservation and management of open space (M-BIO-8A); easement for the open space (M-BIO-8B); limited building zone easement (M-BIO-8C); development of a resource management plan (M-BIO-8D); open space fencing and signage (M-BIO-8E); potential indirect effects from dust would be minimized through implementation of a fugitive dust control plan (M-BIO-1); herbicide regulations (M-BIO-10); implementation of a fire protection plan to minimize fire hazards (M-BIO-11); and obtaining federal and state agency permits for impacts to jurisdictional resources (M-BIO-12, federal and state agency permits). With these measures, long-term indirect impacts to special-status vegetation communities and jurisdictional resources would be mitigated to less than significant through implementation of mitigation measures.

4.2.5 Project Effects Relevant to Guideline 4.2.E (Wetland Buffers)

As described in Section 2.2.2, the County requires all RPO wetlands to have a buffer to protect their functions and values. The buffer requirements depend on the overall quality of the wetlands, and are between 50 and 200 feet. The functions and values of the on-site drainages are described in Section 1.4.7 and are categorized by flood storage and flood flow modification, nutrient retention and transformation, groundwater recharge, sediment trapping, toxicant trapping, wildlife habitat, aquatic habitat, and public use. Based on this information, and the information provided in Section 1.4.7.1, a 75-foot wetland buffer is proposed for RPO wetlands

within the project Site. Many of the RPO wetlands are located in the open space and have a much larger buffer.

Based on the *Fire Protection Plan for the Newland Sierra Project* (see Appendix N of EIR; FPP), the fire modeling resulted in FMZs that are at least 250 feet wide for most of the Site, 2.5 times larger than the standard 100-foot-wide requirement. The fire buffers are separated into two zones. Zone 1 (Irrigated Structure Setback Zone) extends a minimum of 100 feet starting at a structure and moving outward; all flammable native vegetation shall be removed except for species approved by the Deer Springs Fire Protection District (see Appendix N of EIR). This zone would be planted with drought-tolerant, fire-resistive plants from San Diego County Fire Chief's Association Fuel Modification Zone Plant Reference List, and an automatic irrigation system would be installed in this area to maintain hydrated plants without over-watering, allowing for run-off, or attracting nuisance pests. Zone 2 (Thinning Zone) adjoins Zone 1 and measures up to 150 feet in most areas. Zone 2 includes 50 percent thinning or removal of plants and low ground cover; California sycamore (*Platanus racemosa*), coast live oak, and Engelmann oak are allowed in Zone 2. The FPP also includes a Special Management Zone where native fuels would be managed such that the highly flammable prohibited species and the dead and dying plants are removed while other native plants that are less prone to ignition and fire spread are allowed to remain (see Appendix N of EIR). As described above, the RPO wetlands have at least a 75-foot buffer between the proposed FMZs and the RPO wetland. There are potential impacts 0.4 (0.25 acre of permanent impacts and 0.15 acre of temporary impacts) acre of RPO wetland buffer from FMZ Zone 2 thinning activities. In this area, the RPO wetland abuts the project boundary on the east side where the resource appears to extend farther to the slope of I-15. The RPO wetland is buffered by open space to the north–northwest for the entire length of the project boundary, ranging in widths from 400 feet to over 6,000 feet. To the south–southeast, the RPO wetland is buffered by 350 feet which is reduced as the open space ends at the project boundary. The majority of the open space surrounding the RPO wetland, including the habitat type impacted, is southern mixed chaparral, a non-wetland habitat type. A portion of the southern mixed chaparral is elevated above the RPO wetland but is not steeply sloped and would not be subject to high erosion. In addition, the chaparral is thick, and the removal of 50 percent of fuel load would still maintain a natural vegetation community that provides soil compaction and erosion control. Other edges effects typical of a reduced buffer area (such as lighting, noise, and trash) would not occur in this area, because Zone 2 fuel modification is the only allowed activity within the buffer. Because the southern mixed chaparral habitat within the buffer would still provide erosion protection and no other edge effects are expected, the fuel modification activities would not affect the functions and values of the RPO wetland (southern coast live oak riparian forest). With a relatively large buffer between the outer edge of the RPO wetlands to development and minimal fire management activities within a portion of the 75-foot RPO buffer,

the buffers are adequate to protect the functions and values of the existing wetlands and this is not considered a significant impact per the County significance criteria 4.2(e).

The existing North Twin Oaks Valley Road is located within approximately 1.1 acres of RPO wetlands and wetland buffer. No road widening or other improvements are planned for this portion of Twin Oaks Valley Road to maintain the rural character of the road. This County-maintained paved road is regularly used by residents, and the creek continues to function and maintain riparian scrub and woodland habitat. In addition, all of the land to the east and west of the road are preserved in open space (Figures 12A–12E). Because this is an existing road and no widening or other improvements are planned, this area is not considered an impact to RPO wetland buffers, and would not be significant per the County significance criteria 4.2(e).

Impact V-7: Permanent Direct Impacts to RPO Wetlands and Buffers

The off-site improvement areas would impact ~~1.49~~0.99 acres of RPO wetlands and 3.85 acre of RPO wetland buffer. These off-site impacts would be significant per the County significance criteria 4.2(e) (**Impact V-7**). This impact would be mitigated to less than significant through implementation of mitigation measure M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities); easement for the open space (M-BIO-8B); limited building zone easement (M-BIO-8C); development of a resource management plan (M-BIO-8D); open space fencing and signage (M-BIO-8E); and M-BIO-12 (federal and state agency permits). Additionally, M-BIO-8D includes preparation and implementation of an RMP (Dudek 2017a~~b~~), which would provide specific management for the RPO wetlands. The RPP also includes information about the project's general consistency with the RPO and how the proposed project design is the superior alternative (Dudek ~~2017a~~2018).

4.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they are discussed thoroughly in the proposed project's EIR.

4.4 Mitigation Measures and Design Considerations

The proposed project would impact 40 percent (776.6 acres of 1,985 acres) through development and fuel modification. The off-site improvements would impact between 70 and 72.6 acres.

Mitigation for short-term, direct impacts to special-status vegetation communities include mitigation measures M-BIO-1 (biological monitoring to avoid unintentional construction impacts), M-BIO-2 (temporary construction fencing), and M-BIO-3 (monitoring verification through preparation of a biological monitoring report), which are described in Section 3.4.

Mitigation for short-term and long-term indirect impacts to special-status vegetation communities are analyzed in Sections 2.2.1 and 2.2.2. The project would require construction monitoring to avoid unintentional impacts to species and habitat impacts (M-BIO-1); construction areas would have temporary construction fencing to avoid inadvertent habitat destruction (M-BIO-2); there would be monitoring verification through preparation of a biological monitoring report (M-BIO-3); landscape plans would prohibit invasive species and landscape products would be verified on the job site (M-BIO-4); by compensation with like- (occupied) habitat and habitat management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities and placing an easement over the open space (M-BIO-8A and M-BIO-8B), installing fencing and signage around open space (M-BIO-8E), limiting clearing or modification of vegetation adjacent to open space (M-BIO-8C), by construction monitoring to include a fugitive dust control plan to prevent dust related impacts (M-BIO-1), a Resource Protection Plan to coordinate regulated herbicide application to control invasive species, implementation of a fire protection plan to minimize the potential exposure of the project Site to fire hazards, and ongoing annual monitoring and reporting (M-BIO-8D, M-BIO-10, and M-BIO-11), and federal and state agency permits for jurisdictional wetland would result in no-loss of wetlands through revegetation and enhancement (M-BIO-12). This impact would be mitigated to less than significant through implementation of the above mitigation measures.

In accordance with County guidelines (County of San Diego 2010a), impacts to special-status vegetation communities would require mitigation. There are permanent direct impacts to approximately 760.6 acres of special-status vegetation communities, and 497.3 acres of habitat with equivalent function and value are required to be conserved to offset this significant impact. Mitigation measure M-BIO-8 describes the on-site and off-site preservation of 1,420.9 acres of open space (see Section 3.4), which would mitigate for impacts to special-status vegetation communities.

M-BIO-12 **FEDERAL AND STATE AGENCY PERMITS:** To comply with the state and federal regulations for impacts to U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdictional resources, the following agency permits are required, or verification that they are not required shall be obtained.

The following permit and agreement shall be obtained, or evidence from the respective resource agency, satisfactory to the director of PDS that such an agreement or permit is not required, shall be provided:

a. A Clean Water Act, Section 401/404 permit issued by the California RWQCB and ACOE for all project-related disturbances of waters of the United States and/or associated wetlands.

b. A Section 1602 Streambed Alteration Agreement issued by the CDFW for all project-related disturbances of any streambed and/or associated riparian habitat.

Documentation: The applicant shall consult each agency to determine if a permit or agreement is required. Upon completion of the agency review of this project, the applicant shall provide a copy of the permit(s)/requirements/agreement(s).

Timing: Prior to approval of any grading and or improvement plans and issuance of any grading or construction permits.

Monitoring: PDS shall review the permits/agreement for compliance with this condition. Copies of these permits should be implemented on the grading plans.

4.5 Conclusions

Impact V-1 The significant short-term, direct impacts to special-status vegetation communities will be reduced to less than significant through implementation of mitigation measures M-BIO-1, M-BIO-2, M-BIO-3, M-BIO-6, and M-BIO-7, which require biological monitoring, placement of temporary construction fencing, preparation of a biological monitoring report, revegetation plan for temporary impacts and minimization of night and outdoor lighting. Biological monitoring and reporting will ensure that additional habitat is not impacted during construction and that the BMPs outlined in the SWPPP are adhered to.

Impact V-2 The significant permanent, direct impact to 757.2 acres of special-status upland vegetation communities located both onsite and offsite will be reduced to less than significant through implementation of mitigation measure M-BIO-8A through M-BIO-8E, which provides for 1,420.9 acres of habitat conservation and management of equivalent function and value in an amount in accordance with the County *Guidelines for Significance and Report Format and Content Requirements: Biological Resources*.

Implementation of M-BIO-8A would reduce the impact to vegetation because in-kind habitat/vegetation preservation and management of special-status vegetation communities, based on the appropriate ratio specific to each type of vegetation community, in conformance with the mitigation ratios required by the County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (2010a) has been proposed. The required mitigation ratios were determined through consideration of the rarity and sensitivity of each individual vegetation community throughout the County and are appropriate to maintain, preserve, and protect each specific habitat community.

Typically, the required mitigation ratios are higher (i.e., 3:1) for vegetation communities that are most sensitive and rare to provide a higher level of preservation and protection. The on-site and off-site RMPs (provided in M-BIO-8D) provides for the long-term funding, management, and monitoring efforts including performance standards to measure the success of mitigation and will ensure that impacts to the habitat communities are truly mitigated. All mitigation land will be located within a biological open space easement (or owned by a governmental agency for the purpose of conservation) and would be part of the North County Plan. The larger undeveloped framework of the surrounding landscape is currently under review for incorporation into the draft North County Plan The designated open space as part of the proposed project would be consistent with North County MSCP draft guidelines, thereby preserving a portion of the connections of large and diverse landscapes for wildlife. Implementation of these mitigation measures will reduce significant impacts to vegetation communities to less than significant in accordance with the County *Guidelines for Significance and Report Format and Content Requirements: Biological Resources,* the Southern California CSS NCCP Process Guidelines, and the Planning Agreement between the County and the Wildlife Agencies (2014).

Impact V-3 The proposed project would result in temporary impacts to ACOE/ RWQCB/CDFW resources associated with temporary grading and would be reduced to less than significant through M-BIO-6 and M-BIO-12. M-BIO-6 requires the restoration and revegetation of temporarily impacted areas to pre-project conditions (i.e., a 1:1 ratio) (Appendix J) thus restoring the functions and values of those resources. M-BIO-12 requires permits from the appropriate federal and state agencies to impact jurisdictional resources.

Impact V-4 The proposed project would result in permanent direct impacts to County RPO wetlands, CDFW riparian habitat, and non-wetland waters of the United States/state, and would be reduced to less than significant through M-BIO-8A through M-BIO-8E, which includes the permanent preservation and management of open space, and M-BIO-12, which requires permits from the appropriate federal and state agencies to impact jurisdictional resources. County RPO wetlands, CDFW riparian habitat, and non-wetland waters of the United States/state would be conserved within the open space, thus retaining the functions and values of those resources. Mitigation for permanently impacted jurisdictional resources will be identified through the permitting process to ensure that impacts to these resources are mitigated in accordance with state and federal laws and regulations. Mitigation for permanently impacted jurisdictional resources will be identified through the permitting process to ensure that impacts to these resources are mitigated in accordance with state and federal laws and regulations.

Impact V-5 The significant short-term, indirect impacts to special-status upland vegetation and riparian habitat will be reduced to less than significant through implementation of mitigation measures M-BIO-1, M-BIO-2, M-BIO-3, and M-BIO-12, which require temporary construction fencing, biological monitoring, preparation and implementation of a SWPPP, preparation of a biological monitoring report, implementation of a fugitive dust control plan, and obtaining permits from the appropriate federal and state agencies. Fencing, biological monitoring, and reporting will ensure that additional habitat is not impacted during construction and that the BMPs outlined in the SWPPP are adhered to. Implementation of the fugitive dust control plan will ensure that impacts related to dust are avoided to the maximum extent possible.

Impact V-6 The significant long-term, indirect impacts to special-status upland vegetation communities and jurisdictional resources will be reduced to less than significant through implementation of mitigation measures M-BIO-1, M-BIO-4, M-BIO-8A through M-BIO-8E, M-BIO-10, M-BIO-11, and M-BIO-12, which provide for biological monitoring and the implementation of a fugitive dust control plan, biological review of landscape plants, 1,420.9 acres of habitat conservation and management of equivalent function and value, regulated herbicide application, implementation of a fire protection plan, and obtaining permits from the appropriate federal and state agencies.

Impact V-7 The significant direct impacts to County RPO wetlands and wetland buffers will be reduced to less than significant through implementation of M-BIO-8A through M-BIO-8E, which includes the permanent preservation and management of open space, and management of RPO resources as specified in the RPP. Much of the County RPO wetlands would be conserved within the open space, thus retaining the functions and values of those resources. Additionally, the RPP (Dudek ~~2017a~~2018) provides information about the proposed project as generally consistent with the RPO, and where not consistent, it meets the RPO exemption because the project design concentrates the development in the southern portion of the property to create a biological preserve in the northern portion of the property, providing a core habitat block in the Merriam Mountains, and required improvements to Deer Springs Road, a General Plan Mobility Element road and essential facility in the County's General Plan. . Since the County RPO wetlands are also jurisdictional resources of the state, implementation of M-BIO-12, which requires permits from the appropriate federal and state agencies to impact jurisdictional resources, will identify additional mitigation through the permitting process to ensure that impacts to these resources are mitigated in accordance with state and federal laws and regulations.

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5 JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 Guidelines for the Determination of Significance

The County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guideline for the determination of significance comes directly from the County's guidelines (County of San Diego 2010a) and refers only to federally protected wetlands.

Guideline 4.3 The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impacts to federally protected wetlands defined by Section 404 of the CWA are discussed under Guidelines 4.2.B and 4.2D.

5.2 Analysis of Project Effects

5.2.1 Project Effects Relevant to Guideline 4.3 (Federally Protected Wetlands)

Impacts to federally protected wetlands defined by Section 404 of the CWA are discussed under Guidelines 4.2.B and 4.2D.

5.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they are discussed thoroughly in the proposed project's EIR.

5.4 Mitigation Measures and Design Considerations

Mitigation associated with impacts to federal wetlands are described in Section 4.4.

5.5 Conclusions

See Section 4.5.

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6 WILDLIFE MOVEMENT AND NURSERY SITES

6.1 Guidelines for the Determination of Significance

The County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a):

Guideline 4.4 The project would interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

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

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges will be required to provide connectivity. Wildlife underpasses shall have dimensions (length, width, height) suitable for passage by the affected species based on a Site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant road-kill or interference with an existing wildlife corridor/linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns; for example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.

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

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

adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages.

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

6.2 Analysis of Project Effects

6.2.1 Project Effects Relevant to Guideline 4.4.A (Wildlife Access to Key Habitat Areas)

Impact WM-1: Temporary Direct Impacts to Foraging and Nesting Habitat

Temporary direct impacts (short-term or construction-related) to potential avian foraging and nesting habitat, and potential habitat connectivity and wildlife movement for species that use the project Site would primarily result from errant construction activities and from 8.7 to 9.2 acres of temporary impacts associated with grading (see Table 2-1 and analysis in Section 2.4.1). Clearing, trampling, or grading of foraging and breeding habitat outside designated construction zones could occur in the absence of avoidance measures and potential temporary direct impacts to avian foraging and nesting habitat and to wildlife, especially to wildlife that move slowly or are fossorial on Site would be significant **(Impact WM-1)**.

The project proposes monitoring to avoid unintentional construction impacts (M-BIO-1); construction areas would have temporary construction fencing to avoid inadvertent habitat destruction (M-BIO-2); there would be monitoring verification through preparation of a biological monitoring report (M-BIO-3), and impacted vegetation would be replaced through a vegetation plan where possible for temporary vegetation impacts (M-BIO-6). With these measures, temporary direct impacts to avian foraging and nesting habitat would be less than significant.

Impact WM-2: Permanent Direct Impacts to Foraging and Nesting Habitat

The proposed project would result in permanent direct impacts to approximately 776.6 acres that has the potential to provide avian foraging, roosting and nesting habitat; foraging,

breeding, and nursery habitat for terrestrial wildlife; access to water, shelter, and reproduction habitat; and connectivity and wildlife movement for species that use the project Site. As described in Section 2.4.1 and Tables 2-7 and 2-8, avian foraging, roosting, nesting and dispersal habitat for the native species that were previously using the habitats of the development area would be eliminated from those areas. According to Project Effects Relevant to Guideline 4.4.A, permanent direct impacts to foraging and breeding habitat would be considered a significant impact **(Impact WM-2)**.

The project proposes habitat preservation and management of 1,420.9 acres of habitat that provides for avian breeding and foraging, as well as compensation for loss of wildlife foraging, breeding and movement (M-BIO-8A). M-BIO-8A includes on-site habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities and off-site preservation of sensitive habitat and species, in conformance with the County *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources*. See Section 1.4.8 for a detailed description of the proposed open space design. Table 4-1 summarizes the impacts and required mitigation for vegetation communities in the project Site. Wildlife movement within the proposed open space design would occur within three large blocks of open space and four corridors located between development (Figure 9). The proposed open space design would allow for wildlife movement within on-site open space and surrounding preserves to the north and south. Access to intermittent and perennial water sources outside of the project Site would be retained. Block 2 would retain access to Deer Spring Creek to the south while Block 1 would retain access to the creek that runs along Twin Oaks Valley Road to the west and wildlife in the steep eastern slopes facing the freeway of Block 3 can cross Deer Springs Road to access the unnamed stream channel south of the project Site. It is unlikely, though possible, for wildlife to cross Interstate 15, however that is an existing condition that is unrelated to this project. Improvements to Deer Springs Road has the potential to impact wildlife movement by causing direct mortality through road kill, or reducing the amount of attempted crossings due to increased noise and activity. Species which occur, or are anticipated to occur within all blocks include typical upland reptile, avian, and mammal species. Larger species would be expected to search out water resources, while smaller species would support their hydration needs by seeds, prey, or dew. In support of the habitat preservation and management, these additional mitigation measures would be implemented: an easement would be placed over the open space (M-BIO-8B), fencing and signs would be constructed around the open space (M-BIO-8E), the project would limit the clearing or modification of vegetation adjacent to open space (M-BIO-8C), and on-site and off-site RMPs have been provided (M-BIO-8D).

Impact W-3: Temporary and Permanent Indirect Impacts to Foraging and Nesting Habitat

Short-term and long-term indirect impacts to avian foraging and wildlife access to foraging, roosting, nesting, or water resources are described in Sections 2.4.2 and 2.6.2 and include generation of fugitive dust, noise from construction activities, chemical pollutants, increased human activity during construction; invasive predators and non-native plant and animal species, lighting; habitat fragmentation; and the proposed urban development and recreational facilities. These indirect impacts are considered a significant impact **(Impact WM-3)**. As analyzed in previous sections (Project Effects Relevant to Guidelines 4.1.H and 4.2.D), this impact would be mitigated through mitigation measure M-BIO-8A through M-BIO-8E (e.g., habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities, easement, signage and fencing), which would conserve approximately 1,209.1 acres in an on-site preserve with superior preserve function and value. Wildlife movement within the proposed on-site open space design would occur within three large blocks of open space and four corridors located between development blocks (Figure 9). Small mammals that regularly use the dense chaparral occurring on Site often do not require access to water sources and have small territories; larger mammals such as mule deer, mountain lion, and coyote are expected to use dirt trails, and any riparian corridors occurring throughout the open space as their primary means of travel. Similarly, small wildlife species (e.g., lizards and small mammals) would continue to use the dense chaparral and dirt trails within the proposed open space. Additionally, the off-site mitigation area in Ramona would aid in the connection of segments of the Cleveland National Forest and San Diego Parks and provide protection for continued use by a variety of wildlife (Appendix K). The preservation of 211.8 acres of one large off-site parcel situated in a key natural gap in the adjacent agricultural (ranches, poultry farms) landscape amid cattle ranch lands and open space provides for preservation of habitat ~~connectivity~~ between segments of the Cleveland National Forest located approximately 2 miles to the east and west, and San Diego County Parks land located approximately 3 miles to the north and south (Appendix K).

6.2.2 Project Effects Relevant to Guideline 4.4.B (Connectivity Between Blocks of Habitat)

The proposed project Site is located within the northern portion of the Merriam Mountains, a narrow chain of low mountains generally running north–south with a variety of east–west trending ridgelines and scattered peaks. The undeveloped Site contains natural features of scenic and biological value, including rugged topography and rock outcroppings with a wide range of elevations occurring on Site. Land use within the project Site and in the surrounding areas is a mixture of undeveloped lands and rural residential areas. For the most part, the area in and around the project Site is very similar with regard to undeveloped landscapes with limited human disturbance, similar topographic relief,

and similar vegetation communities. The Site currently facilitates the movement of small and larger mammals to traverse across to adjacent undeveloped landscapes.

The proposed project would limit wildlife (particularly large mammals) from traversing directly through the project Site in a southward direction toward Deer Springs Creek. A southern connection to Deer Springs Creek would be maintained, but it would be narrower than current conditions. In this area, open space is proposed both between development areas and areas surrounding the development that are adjacent to open space; these open space areas would continue to provide some opportunity for movement through the project Site. The majority of the northern portion of the project would remain as open space and development would not occur around Twin Oaks Valley Road. Wildlife are expected to cross Deer Springs Road and Twin Oaks Valley Road similar to current conditions because the open space configuration allows for continued movement to the south and west. Wildlife crossing would occur at the proposed internal roads within the development in areas where wildlife are expected to move (see wildlife corridors on Figure 9). The speed limits within the internal roads are slower, which helps reduce vehicle collisions, and vehicle collisions along Deer Springs Road and Twin Oaks Valley Road are not expected to increase significantly. Additionally, wildlife crossing these roads are common (e.g., skunk, opossum, mule deer) and genetic flow through the Site and surrounding areas would be maintained both in the short-term and long-term. In addition, dedicating the northern half of the project Site as biological open space would continue to facilitate wildlife movement to the adjacent PAMA-designated lands of the draft North County Plan, which are largely situated along the northern and eastern boundaries of the project Site. Draft North County Plan PAMAs are also located along the southern boundary of the project Site and open space within developed landscapes would continue to facilitate movements to these areas. Overall, the project effects are expected to be greater along the central and southern portion of the project Site and for large mammals rather than small mammals or reptiles (due to the home range size and mobility of large mammals).

As discussed earlier, the project would preserve three blocks of habitat (Figure 9), including an 870.2-acre Block 153.9-acre Block 2, and 185-acre Block 3. These are not necessarily considered to be corridors so much as blocks of open space, as they are capable of supporting most of the species present or expected on Site both from a multiple territory standpoint and from a generational standpoint. Although the project Site is not located in the adopted South County Plan, the following discussion is within the context of the goals and criteria for linkages and corridors as discussed in the MSCP County of San Diego Subarea Plan (County 1997): “If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide corridors are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds.

Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages, especially if the topography is steep."

Block 1 is situated along the northern portion of the project Site. It includes a minimum 10,000-foot by 5,000-foot block that is adjacent to draft North County Plan PAMA-designated lands to the north, so meets the minimum width goals. It also includes rim-to-rim recommendations. It maintains connectivity to the remainder of the Core Area to the north and west, builds off of, and buffers existing conservation areas, and conserves Gopher Canyon Creek and associated riparian resources, coastal sage scrub, mafic southern mixed chaparral, California gnatcatcher and a wide variety of other smaller and medium-sized wildlife, summer holly, and Engelmann oak.

Block 2 is situated along the western side of the project Site and directly connects to Block 1. It includes a minimum 1,000-foot by 7,000-foot block of habitat so conforms to the minimum width goals. This area is intended to support the California gnatcatcher linkage along I-15 by preserving the western portion of the rim-to-rim draft North County Plan PAMA-designated area, thus fulfilling the rim-to-rim recommendations. In addition, it conserves southern mixed chaparral and species linked to that community.

Block 3 is connected to Blocks 1 and 2 by multiple short corridors (Corridors A through D as described in Section 1.4.8), all of which meet the minimum standards. Block 3 is a minimum 4,400-foot by 1,200-foot and conserves coastal sage scrub, southern mixed chaparral, rock outcrops, ridges, and valleys. The varied terrain does not strictly meet the rim-to-rim recommendation, but includes suitable topography for movement, plus unique resources on Site. It also includes habitat for all species which might occur on Site and maintains connectivity to draft North County Plan PAMA-designated areas and habitat south of the project Site, establishing preserve along the majority of the southern property boundary.

Impact WM-4: Permanent Direct Impacts to Habitat Connectivity

Although open space has been designed to reduce interference with connectivity between blocks of habitat or local/regional wildlife corridor or linkages, the proposed development could substantially interfere with connectivity between blocks of habitat, such that wildlife seeking movement to landscapes south of the project Site would need to locate and use designated corridors incorporated throughout development that would provide some opportunity for these movements. The additional effects of increased traffic may also pose barriers to direct connectivity to adjacent landscapes in the southern half of the project Site. Impacts to smaller mammals, reptiles, and birds are not expected to be significant. Impacts to connectivity between blocks of habitat would be potentially significant for larger wildlife species **(Impact WM-4)**.

This impact would be mitigated through mitigation measure M-BIO-8, which would conserve approximately 1,420.9 acres of well-designed on-site and off-site biological open space preserves in support of the draft North County Plan. The designated open space in the Newland Sierra proposed project is consistent with North County Plan draft guidelines and has been incorporated into the reserve design of the draft North County Plan as a proposed hardline area, thereby interconnecting large and diverse landscapes for wildlife. See Section 1.4.8 for a detailed description of the proposed open space design. The proposed on-site open space design consists of two large continuous blocks of key biological resources situated within the northern half, along the eastern boundary of the project Site, and open space in the center of the proposed development which connects the above-mentioned blocks of open space to open space located east and south of the project Site (Figure 9).

6.2.3 Project Effects Relevant to Guideline 4.4.C (Creation of Unnatural Movement Corridors)

The proposed project would designate open space consisting of two large continuous blocks of key biological resources situated within the northern half and along the eastern boundary of the project Site, as well as a large third block of open space in the center of the proposed development that connects the abovementioned blocks of open space to open space located east and south of the project Site (Figure 9). The off-site open space located in Ramona within the draft North County MSCP area provides a 211.8-acre block of continuous habitat situated between segments of the Cleveland National Forest and San Diego County Parks land.

Block 3 presents a fairly unique preserve area within the network of preserves already existing in this vicinity (i.e., 5-mile buffer around the project). Nearly all of the other preserves are centered around coastal sage scrub, gentle slopes, or flatter areas. This particular block provides a diversity of topography that the other preserve sites do not offer. The combination of diverse topographies, peaks, and boulder slopes provides suitable habitat for a variety of species that the other preserves likely do not. This list may include granite night lizard, granite spiny lizard, bat roosts, and raptor nesting areas in addition to woodrats, rock wren, canyon wren, slender salamanders, and other reptiles. A variety of ferns and interesting annual plants may also be supported within this block. Typical species that have been identified or are expected to occur in this block includes blue-gray gnatcatcher, northern red-diamond rattlesnake, southern California rufous-crowned sparrow, western scrub jay, spotted towhee, California kingsnake, rosy boa, night snake, among others.

Dudek reviewed a draft North County Plan map in August 2014 showing PAMA and existing preserve areas. Dudek scanned and digitized the map to provide a quick comparison of the existing preserves in the area to provide a visual and quantitative snapshot (see Table 6-1; Figure 7). Based on this, it is apparent that the acreage provided within Block 3 far exceeds many of the

existing preserves and is directly comparable to nearly all. Of the approximately 73 preserves in the vicinity, only 5 are larger than Block 3 and of these, only 2 are substantially larger.

Table 6-1
County Provided North County Plan Preserve Areas
Within 5-Mile Buffer Area Compared to On-Site Open Space Blocks

ID Number	Acres	ID Number	Acres	ID Number	Acres
Block 1	*870.2*	*Block 2*	*153.9*	*Block 3*	*185.0*
1	345.1	26	13.7	51	15.5
2	81.8	27	280.4	52	5.8
3	40.1	28	17.3	53	7.9
4	122.6	29	21.8	54	26.0
5	144.0	30	36.6	55	22.8
6	33.2	31	62.1	56	25.3
7	17.3	32	13.9	57	65.6
8	38.8	33	37.1	58	8.9
9	145.0	34	29.7	59	7.4
10	21.2	35	8.3	60	15.7
11	556.0	36	14.6	61	41.3
12	241.3	37	11.4	62	23.6
13	23.8	38	11.4	63	17.3
14	21.7	39	10.0	64	72.2
15	44.8	40	12.1	65	110.8
16	86.8	41	33.7	66	25.5
17	80.0	42	18.6	67	3.6
18	66.8	43	89.7	68	6.4
19	42.3	44	6.4	69	2.7
20	50.4	45	22.5	70	23.7
21	44.6	46	12.7	71	15.8
22	106.7	47	15.9	72	21.7
23	31.3	48	15.3	73	26.0
24	50.0	49	85.3		
25	187.3	50	177.2		

* No preserves are larger than block 1; 6 preserves are larger than block 2; 5 preserves are larger than block 3

Table 6-2 provides additional information about preserves in Southern California that were set aside for species management or as managed preserves for bio-diversity. These are all within the relative size neighborhood of Block 3, not to mention the entire proposed preserve.

Table 6-2
Comparable Open Space/Preserves

Site	Area	Location

Table 6-2
Comparable Open Space/Preserves

Site	Area	Location
Pascoe Parcel of Del Dios Preserve (SDC Parks)	153 acres	North County Inland San Diego County
Helix-Lambron Parcel of Del Dios Preserve (SDC Parks)	60 acres	North County Inland San Diego County
Escondido Creek Preserve (SDC Parks) Roughly 6 separate properties	346 acres	North County Inland San Diego County
San Luis Rey Preserve (SDC Parks) 3 separate parcels	460 acres	North County Inland San Diego County
Stoneridge Preserve (SDC Parks) 2 separate parcels	248 acres	East County San Diego
San Ramon	95 acres	Palos Verdes Peninsula
Forrestal Nature Preserve	155 acres	Palos Verdes Peninsula
Montebello Hills	260 – 320 acres	Montebello

In conclusion, Block 3 provides a diversity of topography and microhabitat features that few, if any, preserves in the vicinity provide; is directly connected to adjacent PAMA lands; supports, or is expected to support, the full range of species which could occur on the project Site; is buffered from adjacent development areas by topography; is situated similarly to other preserves in the vicinity (i.e., in and around homes, open space, and agricultural areas); and is larger than nearly all of the other preserves in the vicinity.

Four additional sections of open space corridors would be interspersed throughout development. Two of these can provide movement through a long corridor and is considered to be ancillary to the project. The other two (Corridors B and C) are described above under Section 6.2.2. These meet corridor width criteria, but are too small to support the rim-to-rim recommendation. These corridors are included within the open space and would provide for additional movement but since they are within FMZ, they are not accounted for in the open space acreages. Wildlife would be freely able to use the 1,600-foot-wide connection between Blocks 2 and 3.

An important aspect of preserve principles is to protect preserves from encroachment. Ideally, preserves would establish blocks of habitat without road access or inaccessible to human disturbance. As previously noted, much of the area is encompassed by dense chaparral. In such habitat, unmaintained dirt roads on Site may serve as important wildlife corridors for large mammals, including mule deer, coyotes, gray foxes, and bobcats. These species may be sensitive to human disturbance and/or presence. Currently the habitat sees much human use, particularly in the southeast and northwest portions of the Site. In addition, the revegetation of some of the

roads and trails to be abandoned with coastal sage scrub and chaparral species would help provide habitat expansion and linkages.

Designated public access trails are planned and would use signage and designated trail routes to protect the biological open space and control human encroachment. It is also important to protect large patches of habitat that do not currently contain trails. The proposed trails, as shown in Figure 13, would be located along pre-existing dirt roads and trails. The use of these trails would be monitored and reinforced by a preserve manager who would visit the area on a semi-weekly basis to document and reinforce these efforts.

Management of the open space areas would keep the many current trespassers from dumping trash, camping, off-road vehicle use, boulder graffiti/tagging and other illegal activities. In many areas, the portion of FMZ directly adjacent to buildings would consist of vineyards. These would provide a sense of ownership that would deter trespassing. This would also provide wildlife with a visual screen from development and might facilitate wildlife movement. In addition, the zone between the vineyard and the Limited Building Zone Easement for biological open space would be thinned to varying degrees. Since much of the habitat on Site is overly mature, making movement for large ground-based wildlife difficult except for dirt trails and dirt roads, the thinned FMZ may provide additional travel avenues for larger ground-based wildlife.

The designated open space and corridors are designed to follow natural ridgelines and landscape patterns that would facilitate wildlife movement around and through developed landscapes. In addition, developed landscapes were designed to follow, as feasible, natural contours of the landscape. Therefore, impacts to movement of wildlife as a result of artificial wildlife corridors would be less than significant.

6.2.4 Project Effects Relevant to Guideline 4.4.D (Noise and Lighting Impacts to Wildlife Corridors)

Impact WM-5: Temporary and Permanent Indirect Impacts to Wildlife Behavior

Permanent nighttime lighting associated with the proposed project includes residential units, vehicle traffic, and street lamp posts. These areas may experience high levels of nighttime lighting. In addition, there would be both short-term and long-term noise associated with construction-related activities and increased human activity, respectively (as described in Section 2.6). Although a Site-specific analysis of wildlife movement has not been conducted, it is expected that an increase in nighttime lighting and noise would affect the behavior of wildlife and, as a result, influence wildlife behavior.

For example, the long-term increase in noise and nighttime lighting is likely to affect the behavior of solitary or secluded wildlife (e.g., species that shy away from developed areas).

Noise during daylight hours may impact diurnal wildlife, such as birds, mule deer (diurnal and nocturnal), coyote (diurnal and nocturnal), small mammals and reptiles, and insects that can occur in or near developed areas. Nighttime lighting disturbance on animals may include attraction, fixation, and repulsion; improvement in orientation, or disorientation; disruption of biological rhythms; and change in habitat quality, and increase predation risk, and would impact wildlife (e.g., mammals, rodents, bats and owls) that are directly within or adjacent to developed areas or seeking to move through, near, or over these areas. It can also affect diurnal animals, particularly during nesting and nursery seasons. Artificial night lighting can affect the feeding, breeding and egg-laying of insects and can affect plants by altering their bud dormancy, flowering and leaf-fall. The proposed open space areas and corridors would be located throughout developed areas and were designed in large continuous blocks in the northern, eastern, and central portions of the Site to minimize these types of impacts. Therefore, it is expected that some species of wildlife would use these larger habitat patches as a means to escape noise during the day and night and nighttime lighting to traverse through the project Site. Although the project was designed to provide areas of refuge and corridors, noise and nighttime lighting associated with the project would impact wildlife behavior. Therefore, impacts to wildlife behavior due to an increase in noise and nighttime lighting in a wildlife corridor would be potentially significant (**Impact WM-5**).

This impact would be mitigated through minimizing outdoor lighting near the open space through the project's Lighting Plan as outlined in the Specific Plan (M-BIO-7) and through creation of an on-site habitat preserve and its management of both existing wildlife populations and suitable habitat, which would conserve approximately 1,209.1 acres with adequate movement corridors away from noise and light (M-BIO-8A).

6.2.5 Project Effects Relevant to Guideline 4.4.E (Width of Wildlife Corridors)

Because the project Site is undeveloped, wildlife is able to move freely throughout the Site. Corridors on the Site include riparian areas, ridge lines, and established animal trails. The project removes 406.6 acres of habitat and alters another 369.9 acres in the fuel management zones and LBZs. The majority of the vegetation to be impacted or altered consists of granitic southern mixed chaparral (626.9 acres). Off-site improvements associated with Deer Springs Road would permanently impact either 47.5 acres (Option A) or 50.2 acres (Option B). Other off-site improvements would permanently impact 23 acres.

The proposed project includes 1,209.1 acres of on-site open space and 4 designated corridors interspersed throughout development. The proposed biological open space was designed to maintain large patches of habitat for various wildlife movement and use. In addition, the majority of the project Site is surrounded by draft North County Plan PAMA lands and dedicated preserves (see Figure 4).

One of the goals and criteria for linkages and corridors described in the *Multiple Species Conservation Program County of San Diego Subarea Plan* (County of San Diego 1997), states:

> If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide corridors are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages, especially if the topography is steep.

The proposed on-site open space areas range from nearly 2 miles wide to areas no less than 400 feet wide. The corridors located within the development areas are smaller and function as stopover habitat for birds or habitat for smaller mammals, reptiles, and birds that do not require large home ranges and are more tolerant of urban-related activities. The corridors within the development only make up 74 acres out of the designated 1,209.1 acres of on-site biological open space.

The remaining on-site open space is characterized by wide and long corridors, and when adjacent undeveloped land is considered, there are only two areas less than 400 feet wide for a length greater than 500 feet located in the southwest portion of the project boundary near some rural residential homes and associated agriculture. When considered as a whole, the proposed open space is designed to allow for wildlife movement from the north to the south, and the proposed project would allow for that through the large blocks of open space at the north, east, and south, and the undeveloped lands (FMZs). Additionally, the off-site mitigation area in Ramona would aid in connecting segments of the Cleveland National Forest and San Diego Parks, and provide protection for continued use by a variety of wildlife (Appendix K). Therefore, this impact is less than significant.

6.2.6 Project Effects Relevant to Guideline 4.4.F (Visual Continuity Within Wildlife Corridors)

As described above, the open space is designed to maintain and preserve large blocks of habitat that include varying topography and riparian and upland habitat types. These large open space areas allow for adequate visual continuity and adequate ~~unimpeded~~ wildlife movement. The smaller corridors interspersed within the development are along slopes which allow for a grade separation that would increase the visual continuity within those areas. While the smaller corridors are not considered in the preservation acreages, they would provide for ancillary movement of wildlife. Likewise, the outer brush management zones, while not included in preservation acreages, would provide a significant swath of movement areas adjacent to the entire Site. Clearing within these areas would remove approximately 20 to 50 percent of the

vegetation, thus providing suitable cover. Because of the density of surrounding vegetation, some wildlife would be able to more easily use these areas. The proposed project would not be considered a significant impact under significance guideline 4.4(f).

6.3 Cumulative Impact Analysis

Cumulative impacts are not assessed in this document; they are discussed thoroughly in the proposed project's EIR.

6.4 Mitigation Measures and Design Considerations

The project includes construction monitoring to avoid unintentional species and habitat impacts (M-BIO-1); construction areas would have temporary construction fencing to avoid inadvertent habitat destruction (M-BIO-2); there would be monitoring verification through preparation of a biological monitoring report (M-BIO-3); and vegetation would be replaced through a vegetation plan where possible for temporary vegetation impacts (M-BIO-6). With these measures, short-term, direct impacts that would impact potential foraging and breeding habitat would be significant and mitigated. Mitigation for long-term direct impacts to potential foraging and breeding habitat for wildlife species includes M-BIO-8A through M-BIO-8E (habitat preservation and management), described in Section 3.4.

6.5 Conclusions

Impact WM-1 The significant short-term direct impacts to potential foraging and nesting habitat will be reduced to less than significant through implementation of mitigation measures M-BIO-1, M-BIO-2, M-BIO-3, and M-BIO-6 which require biological monitoring, preparation and implementation of a SWPPP, preparation of a biological monitoring report, and a revegetation plan for temporarily impacted areas. Temporary construction fencing, biological monitoring, and reporting will ensure that additional habitat is not impacted during construction and that the BMPs outlined in the SWPPP are adhered to. Revegetation of temporary impacts will ensure that native vegetation will be restored, thus reducing the potential for invasive species to encroach upon existing native habitat.

Impact WM-2 The significant permanent, direct impact to the loss of potential foraging and nesting habitat will be reduced to less than significant through implementation of mitigation measures M-BIO-8A through M-BIO-8E, which provides commensurate habitat management and conservation of open space areas. This would reduce the impact to less than significant because there would be adequate habitat to support wildlife species in perpetuity, and in accordance with the County's *Guidelines for*

Determining Significance and Report Format and Content Requirements: Biological Resources equivalent function and value, as well as management of that habitat.

Impact WM-3 Short-term or long-term indirect impacts to suitable foraging and nesting habitat for wildlife species would be less than significant as a result of the proposed project, and no mitigation is proposed. The significant impact to movement of large mammals from loss of wildlife corridors would be reduced to less than significant through implementation of mitigation measures M-BIO-8A through M-BIO-8E, which provides commensurate habitat management and conservation of open space areas. This would reduce the impact to less than significant because there would be adequate habitat conserved within the open space available for wildlife movement to cross through the project Site to adjacent open space. In addition, the preserve created by the open space would constitute a core habitat for most species.

Impact WM-4 Significant impacts to habitat connectivity for larger wildlife species would be less than significant through implementation of mitigation measures M-BIO-8A through M-BIO-8E, which provides for habitat management and conservation of open space areas that allow for adequate ~~unimpeded~~ wildlife movement and use. This would reduce the impact to less than significant because the proposed open space design consists of two large continuous blocks of key biological resources situated within the northern half, along the eastern boundary of the project Site, and open space in the center of the proposed development which connects the above-mentioned blocks of open space to regional open space located east and south of the project Site. The analysis demonstrates there would be adequate habitat available for wildlife to use on Site, or to move to available habitat areas outside of the project Site.

Impact WM-5 Significant impacts to wildlife behavior resulting from noise and/or nighttime lighting in a wildlife corridor would be reduced to less than significant through implementation of mitigation measures M-BIO-7, which minimizes nighttime and outdoor lighting, and M-BIO-8A, which provides commensurate habitat management and conservation of open space areas. This would reduce the impact to less than significant because lighting will not interfere with nocturnal wildlife movements, and the proposed open space design consists of two large continuous blocks of key biological that are buffered by FMZs where adjacent to residences. These features help reduce the urban-wildland interfaces and allow wildlife to move through the open space areas relatively uninterrupted.

7 LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

7.1 Guidelines for the Determination of Significance

The County of San Diego's (County's) *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a).

Guideline 4.5 The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

A. For lands outside of the Multiple Species Conservation Plan (MSCP), the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Community Conservation Planning (NCCP) Process Guidelines.

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

C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO).

D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the Natural Community Conservation Planning (NCCP) Process Guidelines.

E. The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.

F. For lands within the Multiple Species Conservation Program (MSCP), the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO).

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub Natural Community Conservation Planning (NCCP) Process Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the Biological Mitigation Ordinance (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 (Migratory Bird Treaty Act).

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

7.2 Analysis of Project Effects

7.2.1 Project Effects Relevant to Guideline 4.5.A (Coastal Sage Scrub Habitat Loss)

The proposed project is designed in accordance with the draft North County Plan. The Section 4(d) HLP findings are included as Appendix E. The HLP findings show that the proposed project would not impact 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 Process Guidelines. Therefore there is no significant impact related to Guideline 4.5.A.

7.2.2 Project Effects Relevant to Guideline 4.5.B (NCCP Planning)

The proposed project would not preclude or prevent the preparation of the subregional NCCP because the project has been planned in accordance with the planning principles of the draft North County Plan. First, the proposed project has been identified as a proposed hardline area in the draft North County Plan, which means the proposed project's development areas and biological open space areas have been predetermined and hardlined for the purposes of the draft North County Plan (County of San Diego 2016). Additionally, the proposed project has been developed consistent with the Preliminary Conservation Objectives outlined in the Planning Agreement for the North County Plan (County of San Diego 2008a and 2014). The Planning Agreement identifies preserve design principles in the process for evaluating "Interim Projects" and the proposed project has also been developed to be consistent with these principles. Finally, the draft North County Plan identifies conservation goals for each of the adjacent PAMA-designated lands, and the proposed

project has been designed to be consistent with these goals. The project design has been evaluated according to the Preliminary Conservation Objectives outlined in the Planning Agreement for draft North County Plan (County of San Diego 2008a and 2014). These objectives and project applicability/compliance are listed in Table 7-1. Based on the proposed hardline area as shown for the draft North County Plan, the proposed biological open space would assemble 1,209.1 acres of on-site habitat into three cohesive, contiguous blocks as well as an additional off-site block of habitat totaling 212 acres (providing habitat value for proposed MSCP-covered species), and protect the biological open space from future encroachment through organized habitat management and land stewardship in perpetuity (Figure 5).

Therefore, the proposed project would not preclude or prevent the preparation of the subregional NCCP and would not be a significant impact. Additional support for this determination is provided below.

Draft North County Plan Preliminary Conservation Objectives

As outlined in Table 7-1, the habitat loss from the proposed project would not preclude or prevent the North County Plan from achieving the preliminary conservation objectives from the draft North County Plan Planning Agreement (County of San Diego 2008 and 2014).

Table 7-1
Consistency of the Newland Sierra Project with the
Draft North County Plan Planning Agreement Conservation Objectives

Conservation Objective	Consistency
Provide for the protection of species, natural communities, and ecosystems on a landscape level	The proposed project, with mitigation, would provide for protection and conservation of special-status species and natural communities. Through the preservation and long-term management of 1,420.9 acres of on-site and off-site open space of multiple species and multiple communities with connection to off-site PAMA areas, the proposed project would allow for protection of species, natural communities, and ecosystems at a landscape level.
Preserve the diversity of plant and animal communities throughout the Planning Area	The proposed project would conserve and provide long-term habitat management for 1,420.9 acres of biological open space designed to capture the range of plant and animal diversity found on Site, which would contribute to the preserved biodiversity in the draft North County Plan Planning Area. All of the native vegetation communities and habitat types that occur on the project Site are represented within the proposed on-site biological open space. In addition to the California gnatcatcher movement corridors and coastal sage scrub conserved by the project, the on-site and off-site biological open space would preserve unique communities like Mafic southern mixed chaparral and diverse riparian communities along a segment of Gopher Canyon Creek, which would contribute to the diversity of plant and animal communities preserved in the North County Plan Planning Area. The proposed biological open space would also capture an array of landscape features and microhabitats, like rock outcrops and varying landforms (ridgelines, valleys, and slopes), across a range of topographic gradients and differing aspects, which would contribute to the plant and animal communities preserved in the North County Plan Planning Area.

Table 7-1
Consistency of the Newland Sierra Project with the
Draft North County Plan Planning Agreement Conservation Objectives

Conservation Objective	Consistency
Protect threatened, endangered, or other special status plant and animal species, and minimize and mitigate the take or loss of proposed Covered Species	The proposed project, with mitigation, would provide for protection and conservation of special-status plant and animal species, thereby contributing to the conservation of the planned North County Plan, consistent with the draft North County Plan conservation strategy. Specifically, the proposed project would provide conservation of populations and/or suitable habitat, for the following draft North County Plan Covered Species: summer holly, sticky dudleya, felt-leaved monardella, Engelmann oak, orange-throated whiptail, Blainville's horned lizard, red-diamond rattlesnake, northern harrier, California gnatcatcher, southern California rufous-crowned sparrow, Bell's sage sparrow, pallid bat, and mountain lion.
Identify and designate biologically sensitive habitat areas	Consistent with federal, state, and County standards, biological studies have been conducted on the project Site between 2000 and 2017, which contributes to the biological database and knowledge for nearly 2,000 acres in the draft North County Plan Planning Area. Field surveys, mapping, and documentation has been conducted for vegetation communities, rare plants, jurisdictional waters and wetlands, nesting raptors, reptiles, wildlife crossing and culverts, and focused surveys for burrowing owl least Bell's vireo, southwestern willow flycatcher, coastal California gnatcatcher, and Harbison's dun skipper..
Preserve habitat and contribute to the recovery of Covered Species	The proposed project, with mitigation, would provide for protection and conservation of special-status plant and animal species, thereby contributing to the recovery of the draft North County Plan Covered Species, consistent with the draft North County Plan conservation strategy. Specifically, the proposed project would provide conservation of populations and/or suitable habitat for the following draft North County Plan Covered Species: summer holly, sticky dudleya, felt-leaved monardella, Engelmann oak, orange-throated whiptail, western spadefoot, Blainville's horned lizard, red-diamond rattlesnake, northern harrier, California gnatcatcher, southern California rufous-crowned sparrow, Bell's sage sparrow, pallid bat, and mountain lion.
Reduce the need to list additional species	The long-term conservation of large areas of open space resulting from the proposed project would contribute to building the draft North County Plan reserve system and build upon and buffer existing adjacent preserve areas within the PAMA. By implementing the proposed project consistent with the draft North County Plan conservation strategy, the proposed project would contribute to reducing the need to list draft North County Plan Covered Species that are currently not listed.
Set forth species-specific goals and objectives	For the Covered Species, the draft North County Plan describes the general species goals as: Conserve the ecosystem functions and values, appropriate natural communities, and opportunities for genetic exchange needed for the Covered Species to persist in the Plan Area. As described above under separate objectives, the proposed project would provide conservation of populations and/or suitable habitat, for the Covered Species to contribute toward meeting the species-specific goals of the draft North County Plan.
Set forth specific habitat-based goals and objectives expressed in terms of amount, quality, and connectivity of habitat.	The proposed project, with mitigation, would provide for protection and conservation of Covered Species habitat and natural communities, consistent with the conservation strategy of the draft North County Plan, thereby contributing to and not precluding the ability of the County to meet the goals and objectives of the draft North County Plan. Through the preservation and long-term management of 1,420.9 acres of on-site and off-site biological open space within the draft North County Plan the proposed hardline area on Site and PAMA in the off-site mitigation parcel, multiple Covered Species and natural communities would be protected in an interconnected system of biological open space, consistent with the goals and objectives of the draft North County Plan.

Interim Project Preserve Design Principles

In addition to the preliminary conservation objectives, the Planning Agreement for the draft North County Plan identifies an interim project review process, including a set of preserve design principles that interim projects would be evaluated against during the period when the North County Plan is in preparation. As described below, the habitat loss resulting from the proposed project would not preclude or prevent the County from preparing the North County Plan because it has been developed consistent with the interim project preserve design guidelines.

Principle: On-site open space should provide a long-term biological benefit.

- The biological open space proposed for protection on the Site is located within a proposed hardline area of the draft North County Plan (County of San Diego 2016), which means that the proposed project's development areas and biological open space areas have been predetermined and hardlined for the purposes of preparing draft North County Plan. By identifying the proposed on-site biological open space as a proposed hardline area, the County of San Diego has determined that the proposed biological open space would provide long-term biological benefit consistent with the draft North County Plan. The proposed 1,209.1 acres of on-site biological open space occur in an interconnected system of 3 blocks, consisting of a 870.2-acre northern block, a 153.9-acre eastern block, and a 185-acre southern block. Each of these blocks is connected to adjacent draft North County Plan PAMA Core Areas and linkages. Therefore, the proposed large, interconnected on-site biological open space would provide long-term biological benefit.

Principle: On-site open space must protect habitat of equal or greater value as that being impacted. No isolated pockets of open space should be used for mitigation credit.

- The proposed project's development area and associated roadways and fuel modification zones have been strategically designed to maintain connectivity and retain the functionality of the reserve design for the draft North County Plan, as reflected by the designation of a proposed hardline area for the Site. By situating a majority of the development area in the southwestern corner of the project Site, the proposed biological open space is connected to the draft North County Plan PAMA in three key locations:
    - North – Establishing a large, contiguous biological open space (approximately 870.2 acres) in the northern portion of the Site (referred to as Block 1) retains the connectivity to the remainder of the draft North County Plan Core Area. This portion of the project Site is located in the most interior part of the Core Area and conserving it would retain the integrity of the draft North County Plan reserve design. The proposed Block 1 biological open space also builds off and buffers existing protected

lands north of the project Site. Additionally, the Block 1 open space area conserves key biological resources, including a section of Gopher Canyon Creek and associated riparian resources, patches of coastal sage scrub, Mafic southern mixed chaparral, and North County Plan Covered Plant Species (i.e., summer holly and Engelmann oak).

- East – Establishing a north–south biological open space area along nearly the entire eastern portion of the project Site (referred to as Block 2; approximately 153.9 acres) would maintain the landscape connectivity by establishing dedicated conserved lands within the north–south coastal sage scrub "stepping stone" corridor for identified as important for California gnatcatcher regional movement. Additionally, the Block 2 biological open space would establish permanently protected habitat for approximately 1.5 miles along the western side of I-15 valley, which establishes good sight lines for moving and dispersing avian species.
- South – Establishing open space along the southern portion of the property (referred to as Block 3; approximately 185 acres) maintains the integrity of the draft North County Plan reserve design by dedicating open space adjacent to and connected with the Escondido-Temecula Linkage area located south of the project Site.

Therefore, the proposed on-site biological open space would protect habitat of equal or greater value as that being impacted, and no isolated pockets of open space are proposed by the project.

Principle: Separate lots should be used whenever possible for on-site open space to help protect the biological value of the preserved areas.

- The proposed project's on-site biological open space would be protected within individual lots, and this biological open space would be managed for its biological value for the long-term.

Principle: On-site open space shall contribute to regional conservation efforts.

- The proposed on-site and off-site biological open space would establish long-term protection for 1,420.9 acres of habitat for Covered Species and natural communities within the draft North County Plan proposed hardline area and off-site PAMA area, consistent with the conservation strategy for the draft North County Plan. Therefore, the proposed project would contribute to the regional conservation efforts on the County and the Wildlife Agencies under the MSCP draft North County Plan.

Principle: Open space design, to the extent known, should not reduce the biological diversity found on the site.

- The proposed project's biological open space was designed to capture the range of plant and animal diversity found on Site in a system of interconnected open space blocks. All of the native vegetation communities and habitat types that occur on the project Site are represented within the proposed on-site biological open space. In addition to the California gnatcatcher movement corridors and coastal sage scrub that would be conserved by the project, the on-site biological open space would preserve unique communities like Mafic southern mixed chaparral and diverse riparian communities along a segment of Gopher Canyon Creek, which would contribute to the diversity of plant and animal communities preserved in the draft North County Plan. The proposed biological open space also captures an array of landscape features and microhabitats, like rock outcrops and varying landforms (ridgelines, valleys, and slopes), across a range of topographic gradients and differing aspects, which would contribute to the diversity of plant and animal communities preserved on Site. Therefore, the design of the proposed project biological open space, to the extent known using the best available information, would not reduce the biological diversity found on the Site.

Principle: Open space design shall maintain habitat connectivity between areas of high quality habitat.

- The proposed biological open space is interconnected within the project Site and also maintains connectivity to the remainder of the San Marcos–Merriam Mountains Core Area and adjacent PAMA linkages. The proposed project's development area and associated roadways and fuel modification zones have been strategically designed to maintain connectivity of the PAMA and retain the functionality of the reserve design of the draft North County Plan, as reflected by the designation of a proposed hardline area for the Site.. By situating a majority of the development area in the southwestern corner of the project Site, the proposed biological open space is connected to the areas of high-quality habitat off Site within the draft North County Plan PAMA in three key locations: north, east, and south. The northern connection is provided by the 870.2-acre Block 1 open space area, which connects to adjacent PAMA Core Area and existing reserves to the north and west of the project Site. The eastern connection is provided by the 153.9-acre Block 2 open space area, which maintains the connection to the Escondido-Temecula Linkage PAMA and facilitates California gnatcatcher and other avian movement both north–south along the I-15 stepping stone corridor and east–west across the I-15 valley.

Principle: The most sensitive resources shall be protected to maximize long-term viability.

- The project Site is a large property characterized by predominantly (95 percent) native vegetation communities that support important biological resources, some of which are considered sensitive. A majority of the Site (91 percent), however, is characterized by chaparral communities that are fairly common in the region. Of the chaparral communities, southern mixed chaparral on mafic soils is considered more rare/sensitive, and the proposed project would include nearly all (99 percent) of this vegetation type in biological open space. All of the other vegetation groups found on the Site are also represented in the biological open space, including coastal scrub, oak woodlands, and riparian.

  With respect to plant species considered sensitive, biological surveys of the project Site identified six special-status species, two of which are draft North County Plan Covered Species (summer holly and Engelmann oak). Additionally, the Site is considered to have the potential to support two other draft North County Plan Covered Species (sticky dudleya and felt-leaved monardella), but these species were not detected on the Site. The Site supports a relatively large population of summer holly (1,356 individuals), of which the proposed project would protect 86 percent (1,160 individuals). The Site supports a relatively small population of Engelmann oaks, and the proposed project would protect 36 percent (10 individuals).

  With respect to wildlife species considered sensitive, the Site supports or has the potential to support 16 special-status wildlife species (SSC/County Group 1 species). The Site supports or has the potential to support 10 draft North County Plan Covered Species: western spadefoot, orange-throated whiptail, Blainville's horned lizard, red-diamond rattlesnake, northern harrier, California gnatcatcher, southern California rufous-crowned sparrow, Bell's sage sparrow, pallid bat, and mountain lion; however, the Site is not considered to support major or critical populations of these species. Habitat for all of these wildlife species would be protected within the proposed biological open space.

  An important function of the proposed biological open space would be to protect open space in this key geographic location in the region in order to maintain the connectivity of the regional reserve design and to facilitate the continued movement of California gnatcatcher and other avian species. As described previously for other principles, the biological open space system blocks have been designed to protect these landscape functions for long-term viability.

Principle: Edge effects and habitat fragmentation shall be minimized by maximizing the surface area to perimeter ratio, preserving large blocks of contiguous open space. Edge effects shall be further minimized by establishing buffers, providing fencing and/or permanent signs, and limiting trails and/or lighting.

- The proposed project's biological on-site open space is a large, interconnected system consisting of three open space blocks. These three open space blocks would be connected internally within the Site and externally to off-site PAMA and off-site existing reserves. Both the size and configuration of the proposed biological open space minimize edge effects and habitat fragmentation. In terms of open space patch size, the proposed biological open space system includes Block 1 (870.2 acres), Block 2 (153.9 acres), and Block 3 (185.0 acres). These are considered large open space patches when compared to existing reserves in the San Marcos–Merriam Mountains Core Area of the draft North County Plan PAMA. Based on a review of the Conserved Lands dataset maintained by the San Diego Association of Governments (SANDAG) (2015), there are approximately 532 acres of existing reserve within the San Marcos–Merriam Mountains Core Area in approximately 23 discrete open space patches. The largest existing reserve patch in this Core Area is currently 148 acres and the average open space size across these 23 patches is 24 acres. The three proposed open space blocks would also have very high Area-to-Perimeter ratios (expressed in units of square feet-to-feet): Block 1 (886), Block 2 (386), and Block 3 (384). By way of comparison, only one of the existing open space patches in the Core Area has a comparable Area-to-Perimeter ratio (an 89-acre square patch with a ratio of 413). The average Area-to-Perimeter ratio of the existing open space patches in the Core Area is 132. By designing the biological open space in large blocks with high Area-to-Perimeter ratios, the proposed project would minimize edge effects and habitat fragmentation. Additionally, the design features and mitigation measures of the proposed project include a LBZE, which is a required minimum 100-foot easement adjacent to biological open space that would prohibit the building of structures that would require vegetation clearing for fire purposes, would include directional lighting and other lighting specifications, and would include open space fencing and signage, all of which would minimize edge effects.

San Marcos – Merriam Mountain Core Area Conservation Goals

The County is in the process of developing the draft North County Plan. The draft North County Plan includes conservation goals for each PAMA planning unit. The following describes the consistency of the proposed project with the draft conservation goals for the San Marcos–Merriam Mountains Core Area, which is the PAMA designated by the draft North County Plan adjacent to the Site (County of San Diego 2014).

- To the maximum extent practicable, conserve oak woodlands, coastal sage scrub (particularly in Twin Oaks) to maintain populations and connectivity of coastal California gnatcatcher and other coastal sage scrub-dependent species, and chaparral on mafic or gabbro soils that support sensitive plant species, such as chaparral beargrass and Parry's tetracoccus, San Diego thornmint (particularly in San Marcos Mountains), or California adolphia. Refer to natural community and species goals and objectives in the Conservation Analysis (Volume II).
    - To the maximum extent practicable and in consideration of all the competing goals and principles that relate to this project Site, the proposed on-site biological open space of the proposed hardline area for the Site has been developed consistent within this conservation goal. Considering that this Site is predominantly characterized by chaparral habitats, chaparral plant and animal species are the primary species supported by the Site. Mafic chaparral communities would be 99 percent conserved in the proposed on-site biological open space. The chaparral-related plant species listed in this draft goal (i.e., chaparral beargrass, Parry's tetracoccus, San Diego thornmint, and California adolphia) were not documented on the Site. At the regional scale, the importance of the Site is in its location and geographic position within the reserve design for the draft North County Plan. By designing the Site with three interconnected biological open space block covering over 1,209 acres, the proposed project would maintain populations and connectivity of California gnatcatcher and other avian species, particularly by maintaining the north–south I-15 "stepping-stone" corridor and the east–west movement corridor across the I-15 valley. Biological open space Block 2 would avoid coastal sage scrub found to be occupied by California gnatcatcher. A portion of the oak woodlands with buffers would also be conserved within the large interconnected open space system. Volume II of the draft North County Plan has not been made available; therefore, an evaluation of consistency with the natural community and species goals and objectives from the draft North County Plan Conservation Analysis was not possible.
- Ensure that a core community of coastal California gnatcatcher and other coastal sage scrub-dependent species remains in the coastal sage scrub block in Twin Oaks. Refer to species goals and objectives in the Conservation Analysis (Volume II).

  - The proposed project is not located in the Twin Oaks area of the San Marcos–Merriam Mountains Core Area; therefore, this draft conservation goal is not applicable. The proposed project would conserve California gnatcatcher habitat on Site and maintain generational movement of California gnatcatcher north and south, and east and west, across the Site.

- Conserve the north–south connectivity of coastal California gnatcatcher habitat along I-15 between the Riverside County line and the City of Escondido. Maintain the east–west connectivity of natural habitats on either side of I-15 for dispersal of coastal sage scrub community birds.
  - As above for previous draft conservation goals and in the principles above, the proposed open space design would conserve the north–south connectivity of coastal California gnatcatcher habitat along I-15. In addition, a potential east–west connection in the northwestern portion of the open space would be conserved over the long-term in the proposed biological open space.
- Promote conservation of riparian and upland habitats of Gopher Canyon Creek for water quality and sensitive species, such as southwestern pond turtle and least Bell's vireo.
  - The proposed open space design includes preservation of a portion of the South Fork of Gopher Canyon that is located within the western edge of the project Site, which is a tributary to Gopher Canyon Creek and the San Luis Rey River. Inclusion of the headwaters to Gopher Canyon Creek into the proposed open space design assists in the maintenance of water quality and the conservation of riparian habitat. In addition, upland habitat surrounding this tributary is included in the proposed open space design. The Site was not found to support southwestern pond turtle or least Bell's vireo, but the proposed project would protect upstream reaches of Gopher Canyon Creek that supports riparian habitat and resources.
- Ensure the San Diego thornmint population in the Palisades open space preserve is maintained and enhanced, if practicable. Refer to species goals and objectives in the Conservation Analysis (Volume II).
  - This draft conservation goal is not applicable to the Site and this species does not occur on the Site.

Overall, the proposed open space design is be consistent with planning guidelines for the adjacent San Marcos Hills–Merriam Mountains Core Area.

7.2.3 Project Effects Relevant to Guideline 4.5.C (RPO Wetlands)

Impact P-1: Permanent Direct Impacts to RPO Wetlands

The project Site includes RPO wetlands and RPO wetland buffers. As described in Section 4.2.2, and shown in Table 2-5, there are permanent direct impacts to approximately 2.13 acres of County RPO wetlands, which is considered a significant impact **(Impact P-1)**. The RPP provides information on the RPO resources, including sensitive habitat lands, RPO wetlands, steep slope lands, floodplains and lands containing significant prehistoric and historic sites (Dudek ~~2017a~~2018). The RPP includes a discussion of the project's general consistency with the RPO and how the RPO impacts meet the exemption criteria under Section 86.605 of the RPO. The on-site and off-site RMPs (Dudek 2017a~~b~~, 2017b~~c~~) describe the management activities for the open space preserve, which includes RPO wetlands and wetland buffers. This impact would be mitigated less than significant through implementation of mitigation measures M-BIO-8A (habitat preservation and management), M-BIO-8D (development of a resource management plan), and M-BIO-12 (federal and state agency permits).

In addition, there are impacts to RPO wetland buffers; these impacts are described in detail in Section 4.2.5.

7.2.4 Project Effects Relevant to Guideline 4.5.D (Coastal Sage Scrub)

The proposed project is designed to minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the Southern California Coastal Sage Scrub NCCP Process guidelines.

The Draft HLP, including 4(d) Findings, is included in Appendix E. These Findings describe how the project's mitigation for loss of coastal sage scrub habitat conforms with the NCCP Process Guidelines by incorporating the following features: (i) the project has been designed to minimize habitat loss; (ii) the project limits habitat loss to less than 5 percent, as recommended by guidelines; (iii) the project achieves connectivity among high-value habitat by preserving biological open space that is connected to most of the existing core populations in the 5-mile study area and maintaining the north/south I-15 stepping stone corridor; and (iv) the project ensures that development would not reduce the likelihood of the survival and recovery of listed species. Therefore, this impact would be less than significant.

7.2.5 Project Effects Relevant to Guideline 4.5.E (Regional Planning Efforts)

The proposed project conforms to the goals and requirements as outlined in the applicable regional planning efforts (draft North County Plan, NCCP, HLP, General Plan, and North County Metro Subarea Plan) and described in detail in Section 7.2.2. There are no habitat

management plans or special are management plans for the project Site; therefore, there would be no impacts.

7.2.6 Project Effects Relevant to Guideline 4.5.F (Biological Mitigation Ordinance)

The BMO does not apply to the draft North County Planning area. Therefore, there are no impacts to BRCAs.

7.2.7 Project Effects Relevant to Guideline 4.5.G (Connectivity Between Areas of High Habitat Value)

The project would not preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.

The project Site is characterized by approximately 95 percent native vegetation and 5 percent non-native communities and other land cover. A majority of the Site (nearly 91 percent; 1,803.8 acres) is characterized by chaparral communities. Approximately 4 percent (79.7 acres) of the Site is characterized by coastal scrub communities. The remainder of the Site supports oak woodland (0.5 percent; 9.1 acres) and riparian communities (0.4 percent; 8.3 acres).

The 79.7 acres of coastal scrub communities on the Site consist of the following types: 68.2 acres of Diegan coastal sage scrub, 2.0 acres of coastal sage scrub–Baccharis dominated, 1.7 acres of flat-topped buckwheat, and 7.8 acres of coastal sage–chaparral transition. Based on the 2009 draft North County Plan, there is approximately 29,888 acres of coastal sage scrub in the North County Plan area. Therefore, the project Site contains 0.27 percent of the total coastal sage scrub in the draft North County Plan area.

The 79.7 acres of coastal sage scrub on the project Site occurs in five general patch locations: three patch locations in the northern portion of the Site, one in the central portion of the Site, and one patch location in the southeastern portion of the Site. The coastal sage scrub patches in the northern portion of the Site are small, comprising 7.18 acres, 4.76 acres, and 2.90 acres. The central coastal sage scrub patch is the largest, with a combined acreage of all coastal sage scrub types of 48.73 acres. The southeastern coastal sage scrub patch totals 16.13 acres.

The draft North County Plan California Gnatcatcher Habitat Evaluation Model shows a majority of the project Site as "None" with several small patches of "Low" value for California gnatcatcher (County of San Diego 2008b). In terms of the draft North County Plan composite Habitat Evaluation Model, the majority of the project Site (58 percent) is considered moderate value. The remainder of the Site is classified as High or Very High (31

percent) or Low, Agricultural, or Developed (11 percent). The High and Very High values from the North County Plan composite Habitat Evaluation Model on the project Site are not a result of habitat value for California gnatcatcher and do not correspond to the areas of mapped coastal sage scrub on the Site.

The conservation strategy for the draft North County Plan is based on a reserve design that includes existing preserves, PAMAs, and biological open space within proposed hardline areas. The project Site is designated as a proposed hardline area within the approximately 7,640-acre San Marcos–Merriam Mountains Core Area of the North County Plan PAMA. This Core Area comprises approximately 5 percent of the overall North County Plan PAMA.

In the reserve design of the draft North County Plan, the San Marcos–Merriam Mountains Core Area is connected to other portions of the reserve design through the adjacent Escondido-Temecula Linkage located along I-15 north and south of the Site, and through the Moosa Canyon Linkage and Lower San Luis Rey River Linkage that are both located north of the project Site. In the vicinity of the project Site, the largest and highest proportion of Very High and High habitat value areas occurs in the western portion of the San Marcos–Merriam Mountains Core Area, in the predominantly open space areas west of Twin Oaks Valley Road and west of the Vista Valley Country Club south and north of Gopher Canyon Road. Farther to the north, Very High and High habitat value areas are concentrated along Moosa Canyon (along Camino del Rey) and the Lower San Luis Rey River (along SR-76). Off Site along the I-15 corridor, smaller scattered areas of Very High and High habitat value occur that is often referred to as the coastal sage scrub "ladder" or "stepping stone" corridor. East of the I-15 corridor, patches of Very High and High habitat value occur on the open space slope east of Lawrence Welk Resort Village.

The loss of 56.7 acres of coastal sage scrub resulting from the proposed project would not preclude connectivity between areas of high habitat values. The proposed on-site biological open space maintains connectivity to the adjacent San Marcos–Merriam Mountains Core Area and adjacent PAMA linkages. The proposed project's development area and associated roadways and fuel modification zones have been strategically designed to maintain connectivity to the adjacent PAMA and retain the functionality of the reserve design for the draft North County Plan. By situating a majority of the development area in the southwestern corner of the project Site, the proposed on-site biological open space is connected to the draft North County Plan PAMA in three key locations (north, east, and south), as discussed in Section 7.2.2.

The areas of Very High and High habitat value on the project Site that would be impacted by the proposed project are isolated from other areas of contiguous Very High or High value habitat areas by existing land uses (e.g., existing development areas and the I-15 corridor). Therefore, the proposed project would not increase or contribute to the isolation of high-value areas.

Approximately 47 percent (291 acres) of the Very High and High habitat value areas on the project Site would be conserved in proposed on-site biological open space. Therefore, the proposed project would retain areas of high habitat value within an interconnected biological open space system developed consistent with the reserve design objectives of the draft North County Plan.

The proposed project would conserve additional coastal sage scrub habitat off-site in a location that contributes to the North County Plan PAMA. Contribution of off-site coastal sage scrub mitigation (106.4 acres) in addition to the on-site biological open space would further offset the effects of the loss of coastal sage scrub from the proposed project.

Overall, the entire proposed biological open space would contain a diversity of environmental characteristics present in the vicinity, including representative populations of special-status plant and animal species observed on Site; existing dirt trails and canyon bottoms currently used by wildlife for movement across the Site; and the north–south-trending tributary to Gopher Canyon along Twin Oaks Valley Road, which would provide linkage opportunities to the San Marcos Mountains.

Additionally, the off-site mitigation area in Ramona would aid in connecting segments of the Cleveland National Forest and San Diego County Parks land and provide protection for continued use by a variety of wildlife. The preservation of 211.8 acres of one large off-site parcel situated in a key natural gap in the adjacent agricultural (ranches, poultry farms) landscape amid cattle ranch lands and open space would provide for connectivity between segments of the Cleveland National Forest located approximately 2 miles to the east and west, and San Diego County Parks land located approximately 3 miles to the north and south.

7.2.8 Project Effects Relevant to Guideline 4.5.H (Movement Corridors Defined in the BMO)

The BMO does not apply to the draft North County Planning area. Therefore, there are no impacts to BRCAs.

7.2.9 Project Effects Relevant to Guideline 4.5.I (Narrow Endemics)

No narrow endemic species were documented on the project Site and no impacts would result.

7.2.10 Project Effects Relevant to Guideline 4.5.J (Listed Species)

California gnatcatcher occurs on Site; however, the project has been designed to avoid 33 percent (25.2 acres) of the suitable habitat and conserve coastal scrub in accordance with the County's guidelines. The resident pair is expected to remain after the project is implemented. Additional information is provided in Sections 7.2.2, 7.2.4, and 7.2.7, as well as in the draft HLP

(Appendix E). The proposed project would not reduce the likelihood of survival and recovery of any listed species in the wild; therefore, impacts would be less than significant.

7.2.11 Project Effects Relevant to Guideline 4.5.K (Migratory Birds)

Impact P-2: Temporary Direct Impacts to Migratory Birds

Short-term, construction-related impacts to migratory birds and active migratory bird nests and/or eggs protected under the MBTA are considered a significant impact **(Impact P-2)**. This impact would be mitigated through mitigation measure M-BIO-5 (avoidance by preconstruction surveys for nesting birds and setbacks). Preconstruction surveys would identify locations of nesting birds and provide suitable buffers between these locations and construction.

7.2.12 Project Effects Relevant to Guideline 4.5.L

No golden or bald eagles nest on Site. No eagles have been observed on Site during previous surveys (PSBS 2007) or in recent 2013–2014 surveys by Dudek.

7.3 Cumulative Impact Analysis

The ordinances and policies that protect biological resources are applied to each discretionary project in accordance with their associated legally established compliance requirements. One other project in the vicinity has had an approved RPO amendment: Harmony Grove Village.

7.4 Mitigation Measures and Design Considerations

The proposed project would mitigate for impacts to RPO wetlands through on-site and off-site conservation of open space.

Project construction would be phased, where appropriate, to avoid work during the bird breeding season (generally January through August). If construction activity is to commence during the breeding season, a biological survey for nesting bird species must be conducted within the proposed impact area 72 hours prior to each new construction activity, a waiver of nesting bird season prohibition obtained from the director of PDS, and implementation of the Nesting Bird Management, Monitoring, and Reporting Plan in coordination with the wildlife agencies as described in mitigation measure M-BIO-5, above.

No other mitigation is proposed for impacts to local policies, ordinances, and plans because the proposed project remains consistent with all approved planning documents/plans.

7.5 Conclusions

Impact P-1 The significant permanent direct impacts to RPO wetlands would be significant and avoidable through a legislative amendment to RPO. The project's avoidance of the RPO wetlands and wetland buffers is infeasible because the development is concentrated in the southern portion of the property. While this results in permanent impacts to RPO wetlands, this design is intended to create a biological preserve in the northern portion of the property, providing a core habitat block in the Merriam Mountains, and required improvements to Deer Springs Road. The RPP provides information on the RPO resources, including sensitive habitat lands, RPO wetlands, steep slope lands, floodplains, and lands containing significant prehistoric and historic sites (Dudek ~~2017a~~2018). The on-site RMP ~~P~~provides for the management of RPO resources (M-BIO-8D). In addition, the project includes habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities (M-BIO-8A), and obtaining permits from the appropriate federal and state agencies to impact jurisdictional resources (M-BIO-12).

Impact P-2 The proposed project could result in the loss of active nests and/or young if construction activities occur during the nesting season. This impact would be considered a significant impact and would be mitigated through M-BIO-5, which requires preconstruction nesting bird surveys in suitable habitat and appropriate buffers if active nests are found.

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8 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Sections 3.5, 4.5, 5.5, 6.5, and 7.5 summarize the impacts and associated mitigation for each significant impact that may occur as a result of the proposed project. Table 8-1 summarizes the impacts and mitigation required for impacts to special-status species, vegetation community and jurisdictional areas.

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
Guideline 4.1: *The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special-status species listed in local or regional plans, policies, or regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.*						
3.2.1	Impact W-1	Special-Status Wildlife, Listed Species	Short-term (i.e., temporary) Direct	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO- 4 (reduction of invasive species through biological review of landscape plans) M-BIO-5 (avoidance by preconstruction surveys for nesting birds and setbacks) M-BIO-6 (revegetation plan for temporary vegetation impacts) M-BIO-7 (minimize night and outdoor lighting)	Less than significant	4.1, A
3.2.1	Impact W-2	Special-Status Wildlife, Listed Species	Long-term (i.e. permanent) direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management	Less than significant	4.1, A

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				plan) M-BIO-8E (open space fencing and signage)		
3.2.2.1	Impact SP-1	Special-Status Plant, County List A: Summer holly Ramona horkelia	Short-term direct	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO-9 (relocation of Ramona horkelia through implementation of a Mitigation and Monitoring Plan)	Less than significant	4.1, B
3.2.2.1	Impact SP-2	Special-Status Plant, County List A: Summer holly Ramona horkelia	Long-term direct	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-9 (relocation of Ramona horkelia through implementation of a Mitigation and Monitoring Plan)	Less than significant	4.1, B
3.2.2.2	Impact W-3	Special-Status Wildlife, County Group 1 and/or SSC Species: Cooper's hawk Sharp-shinned hawk	Short-term direct	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction	Less than significant	4.1, B

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
		Bell's sparrow Red-shouldered hawk Turkey vulture Yellow warbler Coastal California gnatcatcher Western spadefoot Belding's orange-throated whiptail Red-diamond rattlesnake Blainville's horned lizard Coast patch-nosed snake San Diego desert woodrat Coronado skink San Diego pocket mouse		fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO-4 (reduction of invasive species through biological review of landscape plans) M-BIO-5 (avoidance by preconstruction surveys for nesting birds and setbacks) M-BIO-6 (revegetation plan for temporary vegetation impacts) M-BIO-7 (minimize night and outdoor lighting		
3.2.2.2	Impact W-4	Special-Status Wildlife, County Group 1 and/or SSC Species: Loss of suitable habitat	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage)	Less than significant	4.1, B

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
3.2.3.2	Impact W-5	Special-Status Wildlife, County Group 2: Impacts to active nests or young of nesting	Short-term direct	M-BIO-5 (avoidance by preconstruction surveys for nesting birds and setbacks)	Less than significant	4.1, C
3.2.6	Impact W-6	Special-Status Wildlife, Loss of foraging habitat for raptors	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage)	Less than significant	4.1, F
3.2.7	Impact CWA-1	Existing Core Wildlife Area	Short-term direct	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO-6 (revegetation plan for temporary vegetation impacts) M-BIO-7 (minimize night and outdoor lighting)	Less than significant	4.1, G
3.2.7	Impact	Existing Core Wildlife Area	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations	Less than	4.1, G

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
	CWA-2			of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage)	significant	
3.2.7	Impact CWA-3	Existing Core Wildlife Area	Short-term indirect	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO-6 (revegetation plan for temporary vegetation impacts) M-BIO-7 (minimize night and outdoor lighting)	Less than significant	4.1, G
3.2.7	Impact CWA-4	Existing Core Wildlife Area	Long-term direct	MM-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) MM-BIO-8B (open space easement) MM-BIO-8C (limited building zone	Less than significant	4.1, G

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				easement) MM-BIO-8D (resource management plan) MM-BIO-8E (open space fencing and signage)		
3.2.8.1	Impact SP-3	Special-Status Plant, County List A: Summer holly Ramona horkelia	Short-term indirect	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report)	Less than significant	4.1, H
3.2.8.1	Impact SP-4	Special-Status Plant, County List A: Summer holly Ramona horkelia Rainbow manzanita (*Arctostaphylos rainbowensis*)	Long-term indirect	M-BIO-4 (reduction of invasive species through biological review of landscape plans) M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage) M-BIO-10 (regulated herbicide	Less than significant	4.1, H

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				application to control invasive species) M-BIO-11 (implementation of a fire protection plan to minimize the potential exposure of the project Site to fire hazards)		
3.2.8.2	Impact W-7	Special-Status Wildlife Detected or Potentially Occurring (Table 1-7)	Short-term Indirect	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO-4 (reduction of invasive species through biological review of landscape plans) M-BIO-5 (avoidance by preconstruction surveys for nesting birds and setbacks) M-BIO-6 (revegetation plan for temporary impacts) M-BIO-7 (minimize night and outdoor lighting)	Less than significant	4.1, H
3.2.8.2	Impact W-8	Special-Status Wildlife Detected or Potentially Occurring (Table 1-7)	Long-term Indirect	M-BIO-4 (reduction of invasive species through biological review of landscape plans) M-BIO-6 (revegetation plan for temporary vegetation impacts) M-BIO-8A (habitat preservation and	Less than significant	4.1, H

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage) M-BIO-11 (implementation of a fire protection plan to minimize the potential exposure of the project Site to fire hazards)		
3.2.12	Impact W-9	Special-Status Wildlife, Impacts to active nests or young of nesting raptors	Short-term direct	M-BIO-5 (avoidance by preconstruction surveys for nesting birds and setbacks)	Less than significant	4.1, L
3.2.12	Impact W-10	Special-Status Wildlife, Loss of foraging habitat for raptors	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and	Less than significant	4.1, L

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				signage)		
Guideline 4.2: *The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.*						
4.2.1	V-1	Special-status vegetation communities	Short-term direct	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO-6 (revegetation plan for temporary impacts) M-BIO-7 (minimize night and outdoor lighting)	Less than significant	4.2, A
4.2.1	V-2	Special-status vegetation communities	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage)	Less than significant	4.2, A
4.2.2	V-3	Jurisdictional resources	Short-term direct	M-BIO-6 (revegetation plan for	Less than	4.2, B

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				temporary vegetation impacts) M-BIO-12 (federal and state agency permits)	significant	
4.2.2	V-4	Jurisdictional resources	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage) M-BIO-12 (federal and state agency permits)	Less than significant	4.2, B
4.2.4	V-5	Special-status vegetation communities and jurisdictional resources	Short-term indirect	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO-12 (federal and state agency permits)	Less than significant	4.2, D
4.2.4	V-6	Special-status vegetation communities and jurisdictional resources	Long-term indirect	M-BIO-1 (biological monitoring to avoid unintentional construction	Less than significant	4.2, D

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				impacts) M-BIO- 4 (reduction of invasive species through biological review of landscape plans) M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage) M-BIO-10 (regulated herbicide application to control invasive species) M-BIO-11 (implementation of a fire protection plan to minimize the potential exposure of the project Site to fire hazards) M-BIO-12 (federal and state agency permits)		
4.2.5	V-7	RPO wetlands and wetland buffers	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities)	Less than significant	4.2, E

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage) M-BIO-12 (federal and state agency permits)		
Guideline 4.3: *The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.*						
None						
Guideline 4.4*: The project would interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*						
6.2.1	WM-1	Foraging and nesting habitat	Short-term direct	M-BIO-1 (biological monitoring to avoid unintentional construction impacts) M-BIO-2 (temporary construction fencing) M-BIO-3 (monitoring verification through preparation of a biological monitoring report) M-BIO-6 (revegetation plan for temporary vegetation impacts)	Less than significant	4.4, A
6.2.1	WM-2	Foraging and nesting habitat	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat,	Less than significant	4.4, A

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage)		
6.2.1	WM-3	Foraging and nesting habitat	Short- and long-term indirect	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement) M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage)	Less than significant	4.4, A
6.2.2	WM-4	Habitat connectivity	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-8B (open space easement) M-BIO-8C (limited building zone easement)	Less than significant	4.4, B

Table 8-1
Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas

Section of Report Where Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
				M-BIO-8D (resource management plan) M-BIO-8E (open space fencing and signage)		
6.2.4	WM-5	Wildlife behavior	Short- and long-term indirect	M-BIO-7 (minimize night and outdoor lighting) M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities)	Less than significant	4.4, D
Guideline 4.5: *The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state HCP.*						
7.2.3	P-1	RPO wetlands	Long-term direct	M-BIO-8A (habitat preservation and management of existing populations of sensitive species, suitable habitat, and special-status vegetation communities) M-BIO-12 (federal and state agency permits)	Less than significant	4.5, C
7.2.11	P-2	MBTA	Short-term direct	M-BIO-5 (avoidance by preconstruction surveys for nesting birds and setbacks)	Less than significant	4.5, K

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10 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

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APPENDIX A

Plant Compendium

APPENDIX A
Plant Compendium

VASCULAR SPECIES

DICOTS

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra ssp. *caerulea*—blue elderberry

AIZOACEAE—FIG-MARIGOLD FAMILY

* *Aptenia cordifolia*—heartleaf iceplant

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

* *Schinus molle*—Peruvian peppertree
Malosma laurina—laurel sumac
Rhus integrifolia—lemonade sumac
Rhus ovata—sugar sumac
Toxicodendron diversilobum—Pacific poison oak

APIACEAE—CARROT FAMILY

* *Anthriscus caucalis*—bur chervil
* *Foeniculum vulgare*—sweet fennel
Apiastrum angustifolium—mock parsley
Daucus pusillus—American wild carrot
Lomatium dasycarpum—woollyfruit desertparsley
Sanicula bipinnatifida—purple sanicle
Sanicula tuberosa—turkey pea
Tauschia arguta—southern umbrellawort

APOCYNACEAE—DOGBANE FAMILY

* *Nerium oleander*—oleander

ASTERACEAE—SUNFLOWER FAMILY

* *Carduus pycnocephalus* ssp. *pycnocephalus*—Italian plumeless thistle
* *Centaurea melitensis*—Maltese star-thistle
* *Cynara cardunculus* ssp. *cardunculus*—globe artichoke
* *Delairea odorata*—Cape-ivy
* *Hedypnois cretica*—Cretanweed
* *Helminthotheca echioides*—bristly oxtongue
* *Hypochaeris glabra*—smooth cat's ear
* *Lactuca serriola*—prickly lettuce
* *Logfia gallica*—narrowleaf cottonrose

* *Matricaria discoidea*—disc mayweed
* *Pseudognaphalium luteoalbum*—Jersey cudweed
* *Sonchus asper*—spiny sowthistle
* *Sonchus oleraceus*—common sowthistle
Acourtia microcephala—sacapellote
Ambrosia psilostachya—Cuman ragweed
Artemisia californica—coastal sagebrush
Baccharis pilularis ssp. *consanguinea*—coyotebrush
Baccharis salicifolia—mulefat
Brickellia californica—California brickellbush
Chaenactis artemisiifolia—white pincushion
Chaenactis glabriuscula—yellow pincushion
Corethrogyne filaginifolia—common sandaster
Deinandra fasciculata—clustered tarweed
Erigeron canadensis—Canadian horseweed
Erigeron foliosus—leafy fleabane
Eriophyllum confertiflorum var. *confertiflorum*—golden-yarrow
Euthamia occidentalis—western goldentop
Hazardia squarrosa—sawtooth goldenbush
Heterotheca grandiflora—telegraphweed
Isocoma menziesii var. *menziesii*—Menzies' goldenbush
Isocoma menziesii var. *vernonioides*—Menzies' goldenbush
Logfia filaginoides—California cottonrose
Osmadenia tenella—false rosinweed
Porophyllum gracile—slender poreleaf
Pseudognaphalium biolettii—two-color rabbit-tobacco
Pseudognaphalium californicum—ladies' tobacco
Pseudognaphalium leucocephalum—white rabbit-tobacco
Rafinesquia californica—California plumeseed
Stephanomeria virgata—rod wirelettuce
Stylocline gnaphaloides—mountain neststraw
Venegasia carpesioides—canyon sunflower

BORAGINACEAE—BORAGE FAMILY

Cryptantha micromeres—pygmyflower cryptantha
Emmenanthe penduliflora—whisperingbells
Eriodictyon crassifolium var. *crassifolium*—thickleaf yerba santa
Eucrypta chrysanthemifolia var. *chrysanthemifolia*—spotted hideseed
Phacelia cicutaria—caterpillar phacelia

Phacelia grandiflora—largeflower phacelia
Phacelia parryi—Parry's phacelia

BRASSICACEAE—MUSTARD FAMILY

* *Brassica nigra*—black mustard
* *Hirschfeldia incana*—shortpod mustard
* *Raphanus sativus*—cultivated radish
Cardamine californica—milkmaids
Lepidium virginicum—Virginia pepperweed
Nasturtium officinale—watercress

CACTACEAE—CACTUS FAMILY

* *Opuntia ficus-indica*—Barbary fig

CAPRIFOLIACEAE—HONEYSUCKLE FAMILY

Lonicera subspicata—southern honeysuckle

CARYOPHYLLACEAE—PINK FAMILY

* *Polycarpon tetraphyllum*—fourleaf manyseed
* *Silene gallica*—common catchfly
* *Spergula arvensis*—corn spurry
* *Stellaria media*—common chickweed
Silene laciniata—cardinal catchfly

CHENOPODIACEAE—GOOSEFOOT FAMILY

* *Kochia scoparia*—no common name
* *Salsola tragus*—prickly Russian thistle
*Atriplex canescen*s var. *canescens*—fourwing saltbush

CISTACEAE—ROCK-ROSE FAMILY

Crocanthemum scoparium—no common name

CONVOLVULACEAE—MORNING-GLORY FAMILY

Calystegia macrostegia—island false bindweed
Cuscuta californica—chaparral dodder

CRASSULACEAE—STONECROP FAMILY

Crassula connata—sand pygmyweed
Dudleya pulverulenta—chalk dudleya

CUCURBITACEAE—GOURD FAMILY

Cucurbita foetidissima—Missouri gourd
Marah macrocarpa—Cucamonga manroot

ERICACEAE—HEATH FAMILY

Arctostaphylos glandulosa ssp. *glandulosa*—Eastwood's manzanita
Arctostaphylos pungens—pointleaf manzanita
Comarostaphylis diversifolia ssp. *diversifolia*—summer holly
Xylococcus bicolor—mission manzanita

EUPHORBIACEAE—SPURGE FAMILY

* *Ricinus communis*—castorbean
Euphorbia albomarginata—whitemargin sandmat

FABACEAE—LEGUME FAMILY

* *Melilotus indicus*—annual yellow sweetclover
* *Vicia villosa* ssp. *villosa*—winter vetch
Acmispon americanus var. *americanus*—American bird's-foot trefoil
Acmispon argophyllus—silver bird's-foot trefoil
Acmispon glaber var. *glaber*—common deerweed
Lupinus bicolor—miniature lupine
Lupinus truncatus—collared annual lupine

FAGACEAE—OAK FAMILY

Quercus agrifolia var. *agrifolia*—California live oak
Quercus berberidifolia—scrub oak
Quercus engelmannii—Engelmann oak

GENTIANACEAE—GENTIAN FAMILY

Zeltnera venusta—charming centaury

GERANIACEAE—GERANIUM FAMILY

* *Erodium botrys*—longbeak stork's bill
* *Erodium cicutarium*—redstem stork's bill
Geranium carolinianum—Carolina geranium

GROSSULARIACEAE—GOOSEBERRY FAMILY

Ribes californicum—hillside gooseberry
Ribes indecorum—whiteflower currant

LAMIACEAE—MINT FAMILY

* *Marrubium vulgare*—horehound
Salvia apiana—white sage
Salvia clevelandii—fragrant sage
Salvia mellifera—black sage
Salvia munzii—Munz's sage
Stachys spp. —hedgenettle

MALVACEAE—MALLOW FAMILY

* *Malva parviflora*—cheeseweed mallow
Malacothamnus fasciculatus var. *fasciculatus*—Mendocino bushmallow

MELIACEAE—MAHOGANY FAMILY

* *Melia azedarach*—Chinaberrytree

MONTIACEAE—MONTIA FAMILY

Claytonia parviflora—streambank springbeauty

MYRSINACEAE—MYRSINE FAMILY

* *Anagallis arvensis*—scarlet pimpernel

MYRTACEAE—MYRTLE FAMILY

* *Eucalyptus* sp. —no common name

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

Mirabilis laevis—desert wishbone-bush

ONAGRACEAE—EVENING PRIMROSE FAMILY

Clarkia epilobioides—canyon clarkia
Epilobium canum ssp. *canum*—hummingbird trumpet

OROBANCHACEAE—BROOM-RAPE FAMILY

Cordylanthus rigidus—stiffbranch bird's beak

PAPAVERACEAE—POPPY FAMILY

Eschscholzia californica—California poppy

PHRYMACEAE—LOPSEED FAMILY

Mimulus aurantiacus var. *aurantiacus*—orange bush monkeyflower
Mimulus pilosus—false monkeyflower

PLANTAGINACEAE—PLANTAIN FAMILY

* *Plantago lanceolata*—narrowleaf plantain
* *Plantago major*—common plantain
Antirrhinum nuttallianum ssp. *nuttallianum*—violet snapdragon
Antirrhinum nuttallianum—violet snapdragon
Keckiella antirrhinoides—snapdragon penstemon
Keckiella cordifolia—heartleaf keckiella

PLATANACEAE—PLANE TREE, SYCAMORE FAMILY

Platanus racemosa—California sycamore

POLEMONIACEAE—PHLOX FAMILY

Navarretia hamata ssp. *hamata*—hooked pincushionplant
Navarretia hamata ssp. *leptantha*—hooked pincushionplant

POLYGONACEAE—BUCKWHEAT FAMILY

* *Rumex crispus*—curly dock
Chorizanthe fimbriata—fringed spineflower
Eriogonum fasciculatum var. *fasciculatum*—Eastern Mojave buckwheat
Eriogonum fasciculatum var. *foliolosum*—Eastern Mojave buckwheat
Pterostegia drymarioides—woodland pterostegia
Rumex californicus—toothed willow dock

RANUNCULACEAE—BUTTERCUP FAMILY

Clematis ligusticifolia—western white clematis
Clematis pauciflora—ropevine clematis
Delphinium spp. —no common name
Thalictrum fendleri—Fendler's meadow-rue

RESEDACEAE—MIGNONETTE FAMILY

* *Reseda luteola*—weld

RHAMNACEAE—BUCKTHORN FAMILY

Ceanothus tomentosus—woolyleaf ceanothus
Rhamnus ilicifolia—hollyleaf redberry
Rhamnus pilosa—hollyleaf buckthorn

ROSACEAE—ROSE FAMILY

Adenostoma fasciculatum var. *fasciculatum*—chamise
Cercocarpus betuloides var. *betuloides*—birchleaf mountain mahogany
Cercocarpus minutiflorus—smooth mountain mahogany

Heteromeles arbutifolia—toyon
Horkelia truncata—Ramona horkelia
Prunus ilicifolia ssp. *ilicifolia*—hollyleaf cherry

RUBIACEAE—MADDER FAMILY

Galium angustifolium—narrowleaf bedstraw
Galium aparine—stickywilly
Galium nuttallii ssp. *nuttallii*—climbing bedstraw

RUTACEAE—RUE FAMILY

Cneoridium dumosum—bush rue

SALICACEAE—WILLOW FAMILY

Populus fremontii ssp. *fremontii*—Fremont cottonwood
Salix gooddingii—Goodding's willow
Salix laevigata—red willow
Salix lasiolepis—arroyo willow

SCROPHULARIACEAE—FIGWORT FAMILY

* *Myoporum laetum*—ngaio tree
Scrophularia californica—California figwort

SIMAROUBACEAE—QUASSIA OR SIMAROUBA FAMILY

* *Ailanthus altissima*—tree of heaven

SOLANACEAE—NIGHTSHADE FAMILY

* *Nicotiana glauca*—tree tobacco
Datura wrightii—sacred thorn-apple
Solanum xanti—chaparral nightshade

TAMARICACEAE—TAMARISK FAMILY

* *Tamarix ramosissima*—saltcedar

URTICACEAE—NETTLE FAMILY

* *Urtica urens*—dwarf nettle
Hesperocnide tenella—western stingingnettle

VITACEAE—GRAPE FAMILY

Vitis girdiana—desert wild grape

ZYGOPHYLLACEAE—CALTROP FAMILY

* *Tribulus terrestris*—puncturevine

FERNS AND FERN ALLIES

BLECHNACEAE—DEER FERN FAMILY

Woodwardia fimbriata—giant chainfern

DRYOPTERIDACEAE—WOOD FERN FAMILY

Dryopteris arguta—coastal woodfern

POLYPODIACEAE—POLYPODY FAMILY

Polypodium californicum—California polypody

PTERIDACEAE—BRAKE FAMILY

Cheilanthes clevelandii—Cleveland's lipfern
Pellaea andromedifolia—coffee cliffbrake
Pellaea mucronata—birdfoot cliffbrake
Pentagramma triangularis—goldback fern

SELAGINELLACEAE—SPIKE-MOSS FAMILY

Selaginella cinerascens—ashy spike-moss

MONOCOTS

AGAVACEAE—AGAVE FAMILY

Hesperoyucca whipplei—chaparral yucca
Yucca schidigera—Mojave yucca

ALLIACEAE—ONION FAMILY

Allium praecox—early onion

ARECACEAE—PALM FAMILY

* *Washingtonia robusta*—Washington fan palm

ASPHODELACEAE—ASPHODEL FAMILY

* *Asphodelus fistulosus*—onionweed

CYPERACEAE—SEDGE FAMILY

Carex praegracilis—clustered field sedge
Carex spissa—San Diego sedge
Cyperus eragrostis—tall flatsedge

JUNCACEAE—RUSH FAMILY

Juncus dubius—questionable rush
Juncus mexicanus—Mexican rush
Juncus xiphioides—irisleaf rush

LILIACEAE—LILY FAMILY

Calochortus splendens—splendid mariposa lily
Calochortus spp. —no common name

MELANTHIACEAE—FALSE HELLEBORE FAMILY

Toxicoscordion fremontii—Fremont's deathcamas

ORCHIDACEAE—ORCHID FAMILY

Piperia cooperi—chaparral rein orchid

POACEAE—GRASS FAMILY

* *Arundo donax*—giant reed
* *Avena barbata*—slender oat
* *Avena fatua*—wild oat
* *Brachypodium distachyon*—purple false brome
* *Bromus catharticus*—rescuegrass
* *Bromus diandrus*—ripgut brome
* *Bromus hordeaceus*—soft brome
* *Bromus madritensis* ssp. *madritensis*—compact brome
* *Bromus madritensis* ssp. *rubens*—red brome
* *Cortaderia selloana*—Uruguayan pampas grass
* *Cynodon dactylon*—Bermudagrass
* *Ehrharta calycina*—perennial veldtgrass
* *Festuca myuros*—rat-tail fescue
* *Festuca perennis*—Italian ryegrass
* *Hordeum murinum*—mouse barley
* *Lamarckia aurea*—goldentop grass
* *Melinis repens*—rose Natal grass
* *Paspalum dilatatum*—dallisgrass
* *Pennisetum setaceum*—crimson fountaingrass
* *Polypogon monspeliensis*—annual rabbitsfoot grass
* *Stipa miliacea* var. *miliacea*—smilograss

Agrostis pallens—seashore bentgrass
Melica imperfecta—smallflower melicgrass
Muhlenbergia rigens—deergrass

Poa secunda—Sandberg bluegrass
Stipa coronata—giant ricegrass
Stipa lepida—foothill needlegrass
Stipa pulchra—purple needlegrass

THEMIDACEAE—BRODIAEA FAMILY

Dichelostemma capitatum—bluedicks
Brodiaea orcuttii—Orcutt's brodiaea

* Signifies introduced (non-native) species.

APPENDIX B

Wildlife Compendium

APPENDIX B
Wildlife Compendium

AMPHIBIAN

HYLIDAE—TREEFROGS

Pseudacris regilla—Northern Pacific treefrog
Pseudacris hypochondriaca—Baja California treefrog

BUFONIDAE—TRUE TOADS

Anaxyrus boreas—Western toad

PELOBATIDAE—SPADEFOOTS

Spea hammondii—western spadefoot

BIRD

ICTERIDAE—BLACKBIRDS

Agelaius phoeniceus—Red-winged blackbird
Euphagus cyanocephalus—Brewer's blackbird
Icterus bullockii—Bullock's oriole
Quiscalus mexicanus—Great-tailed grackle
Sturnella neglecta—Western meadowlark
* *Molothrus ater*—Brown-headed cowbird
Icterus cucullatus—Hooded oriole

PHALACROCORACIDAE—CORMORANTS

Phalacrocorax auritus—Double-crested cormorant

EMBERIZIDAE—EMBERIZIDS

Melospiza melodia—Song sparrow
Melozone crissalis—California towhee
Pipilo maculatus—Spotted towhee
Spizella atrogularis—Black-chinned sparrow
Zonotrichia leucophrys—White-crowned sparrow
Artemisiospiza belli—Bell's sparrow
Artemisiospiza nevadensis—Sagebrush sparrow

TYRANNIDAE—TYRANT FLYCATCHERS

Myiarchus cinerascens—Ash-throated flycatcher
Sayornis nigricans—Black phoebe
Sayornis saya—Say's phoebe
Tyrannus verticalis—Western kingbird

Tyrannus vociferans—Cassin's kingbird
Empidonax difficilis—Pacific-slope flycatcher

TROCHILIDAE—HUMMINGBIRDS
Calypte anna—Anna's hummingbird
Calypte costae—Costa's hummingbird
Selasphorus rufus—Rufous hummingbird
Selasphorus sasin—Allen's hummingbird

REGULIDAE—KINGLETS
Regulus calendula—Ruby-crowned kinglet

ODONTOPHORIDAE—NEW WORLD QUAIL
Callipepla californica—California quail

SITTIDAE—NUTHATCHES
Sitta carolinensis—White-breasted nuthatch

SYLVIIDAE—SYLVIID WARBLERS
Polioptila caerulea—Blue-gray gnatcatcher
Polioptila californica—California gnatcatcher

TYTONIDAE—BARN OWLS
Tyto alba—Barn owl

STRIGIDAE—TYPICAL OWLS
Bubo virginianus—Great horned owl

COLUMBIDAE—PIGEONS AND DOVES
Patagioenas fasciata—Band-tailed pigeon
Zenaida macroura—Mourning dove
* *Columba livia*—Rock pigeon (rock dove)

PTILOGONATIDAE—SILKY-FLYCATCHERS
Phainopepla nitens—Phainopepla

STURNIDAE—STARLINGS
* *Sturnus vulgaris*—European starling

HIRUNDINIDAE—SWALLOWS
Hirundo rustica—Barn swallow
Petrochelidon pyrrhonota—Cliff swallow

APODIDAE—SWIFTS

Aeronautes saxatalis—White-throated swift

TURDIDAE—THRUSHES

Catharus ustulatus—Swainson's thrush
Sialia mexicana—Western bluebird
Turdus migratorius—American robin

BOMBYCILLIDAE—WAXWINGS

Bombycilla cedrorum—Cedar waxwing

PARULIDAE—WOOD-WARBLERS

Geothlypis trichas—Common yellowthroat
Oreothlypis celata—Orange-crowned warbler
Cardellina pusilla—Wilson's warbler
Setophaga coronata—Yellow-rumped warbler
Setophaga petechia—Yellow warbler
Setophaga townsendi—Townsend's warbler

TROGLODYTIDAE—WRENS

Catherpes mexicanus—Canyon wren
Salpinctes obsoletus—Rock wren
Thryomanes bewickii—Bewick's wren
Troglodytes aedon—House wren

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk
Accipiter striatus—Sharp-shinned hawk
Buteo jamaicensis—Red-tailed hawk
Buteo lineatus—Red-shouldered hawk

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—Bushtit

ANATIDAE—DUCKS, GEESE, AND SWANS

Anas platyrhynchos—Mallard
Branta canadensis—Canada goose

ARDEIDAE—HERONS, BITTERNS, AND ALLIES

Ardea alba—Great egret
Ardea herodias—Great blue heron
Egretta thula—Snowy egret

CARDINALIDAE—CARDINALS AND ALLIES

Piranga ludoviciana—Western tanager
Passerina caerulea—Blue grosbeak
Pheucticus melanocephalus—Black-headed grosbeak

CATHARTIDAE—CARDINALS AND ALLIES

Cathartes aura—Turkey vulture

CHARADRIIDAE—LAPWINGS AND PLOVERS

Charadrius vociferus—Killdeer

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—Western scrub-jay
Corvus brachyrhynchos—American crow
Corvus corax—Common raven

CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS

Geococcyx californianus—Greater roadrunner

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Carpodacus mexicanus—House finch
Spinus psaltria—Lesser goldfinch
Spinus tristis—American goldfinch

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—Northern mockingbird
Toxostoma redivivum—California thrasher

PARIDAE—CHICKADEES AND TITMICE

Baeolophus inornatus—Oak titmouse

PICIDAE—WOODPECKERS AND ALLIES

Melanerpes formicivorus—Acorn woodpecker
Picoides nuttallii—Nuttall's woodpecker
Sphyrapicus nuchalis—Red-naped sapsucker
Colaptes auratus—Northern flicker

THRESKIORNITHIDAE—IBISES AND SPOONBILLS

Plegadis chihi—White-faced ibis

TIMALIIDAE—BABBLERS

Chamaea fasciata—Wrentit

INVERTEBRATE

LYCAENIDAE—BLUES, HAIRSTREAKS, AND COPPERS

Callophrys augustinus—Brown elfin
Philotes sonorensis—Sonoran blue
Plebejus acmon—Acmon blue
Brephidium exile—Western pygmy-blue

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Adelpha bredowii—California sister
Danaus gilippus—Queen
Danaus plexippus—Monarch
Euphydryas chalcedona chalcedona—Chalcedon variable checkerspot
Junonia coenia—Common buckeye
Limenitis lorquini—Lorquin's admiral
Nymphalis antiopa—Mourning cloak
Vanessa atalanta—Red admiral
Vanessa cardui—Painted lady

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

HESPERIIDAE—SKIPPERS

Erynnis funeralis—Funereal duskywing

PAPILIONIDAE—SWALLOWTAILS

Papilio eurymedon—Pale swallowtail
Papilio rutulus—Western tiger swallowtail
Papilio zelicaon—Anise swallowtail

PIERIDAE—WHITES AND SULFURS

Anthocharis sara sara—Pacific sara orangetip
Pieris rapae—Cabbage white
Pontia protodice—Checkered white

FAIRY SHRIMP

BRANCHINECTIDAE—FAIRY SHRIMP

Branchinecta lindahli—Versatile fairy shrimp

MAMMAL

HETEROMYIDAE—POCKET MICE AND KANGAROO RATS

Dipodomys agilis—Agile kangaroo rat

CANIDAE—WOLVES AND FOXES

Canis latrans—Coyote

Urocyon cinereoargenteus—Gray fox

FELIDAE—CATS

Lynx rufus—Bobcat

MUSTELIDAE—WEASELS, SKUNKS, AND OTTERS

Mustela frenata—Long-tailed weasel

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—Brush rabbit

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

PROCYONIDAE—RACCOONS AND RELATIVES

Procyon lotor—Raccoon

MURIDAE—RATS AND MICE

Neotoma lepida intermedia—San Diego desert woodrat

Neotoma lepida—Desert woodrat

CERVIDAE—DEERS

Odocoileus hemionus—Mule deer

MEPHITIDAE—SKUNKS

Mephitis mephitis—Striped skunk

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

REPTILE

PHRYNOSOMATIDAE—IGUANID LIZARDS

Phrynosoma blainvillii—Blainville's horned lizard
Sceloporus occidentalis—Western fence lizard
Uta stansburiana—Common side-blotched lizard

ANGUIDAE—ALLIGATOR LIZARDS

Elgaria multicarinata—Southern alligator lizard

COLUBRIDAE—COLUBRID SNAKES

Lampropeltis californiae—California kingsnake
Salvadora hexalepis—Coast patch-nosed snake
Diadophis punctatus—Ringneck snake
Pituophis catenifer—Gophersnake

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis tigris stejnegeri—Coastal whiptail

* Signifies introduced (non-native) species.

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APPENDIX C

2013 Least Bell's Vireo and Southwestern Willow Flycatcher Focused Survey Results

DUDEK

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October 10, 2013 7608-01

Recovery Permit Coordinator
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: 2013 Least Bell's Vireo and Southwestern Willow Flycatcher Focused Survey Results for the Newland Sierra Project, San Diego County, California

Dear Recovery Permit Coordinator:

This report documents the results of eight protocol-level presence/absence surveys for the state- and federally listed endangered least Bell's Vireo (*Vireo bellii pusillus*; vireo), and the state- and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*; flycatcher). The surveys were conducted in all areas of suitable vireo and flycatcher habitat within the Newland Sierra Project (formerly known as the Merriam Mountains project site, Study Area).

The southwestern willow flycatcher and least Bell's vireo are closely associated with riparian habitats, especially densely vegetated willow scrub and riparian forest vegetation. These species are threatened primarily by loss, degradation, and fragmentation of riparian habitats. They also are impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

LOCATION AND EXISTING CONDITIONS

The Newland Sierra Project study area consists of approximately 2,242 acres located within the north-central portion of the Merriam Mountains of northern San Diego County (Figures 1 and 2). The site is bounded by I-15 on the east, Deer Springs Road (County Road S12) on the south, and Twin Oaks Valley Road on the west, with a small portion of the northwestern edge of the site traversed by Twin Oaks Valley Road. Gopher Canyon Road is located approximately one-half mile north of the site. Map location of the site includes the following UTMs [NAD 83]: 487,903mE; 3,672770mN on the south, to 485,405mE; 3,677,609mN near the northern boundary of the project; western boundary: 482,877mE; 3,675,968mN and 486,648mE; 3,675,725mN on the eastern boundary.

Elevation of the site ranges widely, from approximately 660 feet above mean sea level (AMSL) along Twin Oaks Valley Road traversing the northwestern portion of the site to 1,750 feet AMSL directly northeast of Twin Oaks Crest Drive. The perimeter of the Project site has an overall gentle sloping topography. Within the project site the topography is more complex. Overall, there are

approximately 5 locations where elevation is above 1,500 feet AMSL (one in the southern and four in the north-central areas of the project site). In some locations the gentle sloping perimeter gradually rises to higher elevations whereas in other areas the slopes are more acute.

Ongoing human disturbance in the study area appears to be moderate at this time, and includes foot traffic associated with residences immediately adjacent to the site, light roadside trash occurs on site along Twin Oaks Valley Road and occasional dense trash dumping and other debris (particularly within a decommissioned rock quarry in along Twin Oaks Valley Road and adjacent to Mesa Rock Road).

Twenty-three soils types within ten soil series occur on site: acid igneous rock land (AcG); Cieneba rocky coarse sandy loam (9-30% slopes, eroded)(CmE2); Cieneba very rocky coarse sandy loam (30-75% slopes)(CmrG); Cieneba-Fallbrook rocky sandy loams (9-30% slopes, eroded)(CnE2); Cieneba-Fallbrook rocky sandy loams (30-65% slopes, eroded)(CnG2); Fallbrook sandy loam (9-15% slopes, eroded)(FaD2); Fallbrook sandy loam (15-30% slopes, eroded)(FaE2); Friant rocky fine sandy loam (30-70% slopes)(FxG); Las Posas fine sandy loam (9-15% slopes, eroded)(LpD2); Las Posas fine sandy loam (15-30% slopes, eroded)(LpE2); Las Posas stony fine sandy loam (9-30% slopes)(LrE); Las Posas stony fine sandy loam (30-65% slopes)(LrG); Placentia sandy loam (2-9% slopes)(PeC); Placentia sandy loam (5-9% slopes, eroded)(PeC2); Placentia sandy loam (9-15% slopes, eroded)(PeD2); Ramona sandy loam (2-5% slopes)(RaB); Ramona sandy loam (5-9% slopes, eroded)(RaC2); Ramona sandy loam (9-15% slopes, eroded)(RaD2); Visalia sandy loam (2-5% slopes)(VaB); Visalia sandy loam (5-9% slopes)(VaC); Vista rocky coarse sandy loam (15-30% slopes)(VvE); Wyman loam (2-5% slopes)(WmB); and Wyman loam (5-9% slopes)(WmC).

VEGETATION COMMUNITIES

Twenty-five vegetation communities or land covers were mapped by Dudek within the project site (Figures 4a-f). These vegetation communities include Agriculture (AGR), Unvegetated Channels (CHAN), Coast Live Oak Woodland (CLOW; including disturbed [dCLOW]), CLOW California Department Fish and Wildlife/Riparian (CLOW CDFG/RPO), Coastal Sage Scrub (CSS; including disturbed [dCSS]), Coastal Sage Scrub – Baccharis (CSSB; including disturbed [dCSSB]), Coastal Sage – Chaparral Transition (CSS-CHP), disturbed Flat-topped Buckwheat (dBSC), Developed (DEV), Disturbed Habitat (DH), South Mixed Scrub (SMX; including disturbed [dSMX]), Eucalyptus Woodland (EUC), Freshwater Marsh (FWM), Intensive Agriculture (IA), Mulefat Scrub (MFS), Non-native Grasslands (NNG), Orchard and Vineyards (ORC), Oak Riparian Forest (ORF), Scrub Oak Chaparral (SOC), Southern Willow Scrub (SWS), Southern Willow Scrub/Tamarisk Scrub (SWS/TS).

Consistent with the latest County of San Diego *Report Format and Content Requirements: Biological Resources* (County of San Diego 2010), vegetation community classifications and descriptions used in this report follow Oberbauer et al. (2008) where feasible, with modifications to accommodate the lack of conformity of the observed communities to those of Oberbauer et al. (2008).

Suspected riparian habitats were also examined prior to surveys for suitability but were subsequently considered as Unsuitable Riparian Habitat (shown on Figure 3). These areas include disturbed Coast Live Oak Woodlands (dCLOW) and a Channel (CHAN). The dCLOW is located at the intersection of Sarver Lane and Vista Merriam. This area is dominated by oak (*Quercus* sp.) and pine (*Pinus* sp.) species along a ditch. The understory of this habitat was either bare or mainly consisted of non-native grasses and low growing scattered herbs. The CHAN runs parallel along the western border of Deer Springs Road. This area is composed of an earthen channel and contained no suitable habitat.

Riparian vegetation communities suitable for vireo and/or flycatcher occurring within the Project site are described below and shown on Figure 3 and Figures 4a-f.

Mulefat Scrub (63310)

This vegetation is a tall, herbaceous riparian scrub strongly dominated by mulefat (*Baccharis salicifolia*) (Oberbauer et al. 2008). This early seral community is maintained by frequent flooding and contains intermittent stream channels with fairly coarse substrate and moderate depth to the water table. Characteristic species include mulefat, Santa Barbara sedge (*Carex barbarae*), narrowleaf willow (*Salix hindsiana*), arroyo willow (*S. lasiolepis*), and stinging nettle (*Urtica dioica* ssp. *holosericea*). This community type is based on the County of San Diego's Mulefat Scrub (Element Codes 63310) (Oberbauer et al. 2008). There are approximately 0.2 acres of mulefat scrub within the project site mapped approximately 1.1 miles north of Deer Springs Road (north of Site 4) and was excluded from the survey. This area consists of few scattered mulefat individuals lining a dirt road adjacent to a steep hillside. These individuals were supported by a water source. However, no other riparian habitat was detected around these individuals. Consequently this area was designated as "Unsuitable Riparian Habitat" (Figure 3).

Southern Coast Live Oak Riparian Forest (61310)

Oak riparian forests consist of dense riparian forests dominated by California live oak (*Quercus agrifolia*) with a closed or nearly-closed canopy. This community may be richer in herbs and poorer in understory shrubs than other riparian communities. Site factors for this community include bottomlands and outer floodplains along larger streams on fine-grained, rich alluvium. Characteristic species in this community include bigleaf maple (*Acer macrophyllum*), Douglas' sagewort (*Artemisia douglasiana*), milkmaids (*Cardamine californica*), spotted hideseed

(*Eucrypta chrysanthemifolia*), toyon (*Heteromeles arbutifolia*), heartleaf keckiella (*Keckiella cordifolia*), pink honeysuckle (*Lonicera hispidula*), Cucamonga manroot (*Marah macrocarpa*), blue fiestaflower (*Pholistoma auritum*), California live oak, skunkbush sumac (*Rhus aromatic*), California wildrose (*Rosa californica*), California blackberry (*Rubus ursinus*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), creeping snowberry (*Symphoricarpos mollis*), Pacific poison oak (*Toxicodendron diversilobum*), and California laurel (*Umbellularia californica*).

Oak riparian forests on site consist largely of Goodding's willow (*S. gooddingii*) and arroyo willow, with occasional coast live oaks. On site, this vegetation type occurs in in four locations: within the northwestern-most project area (parallel with Twin Oaks Valley Road), in two locations along the eastern project boundary (approximately 0.2 and 1.8 miles north of Mesa Rock Road along I-15), and along the south-central project boundary (along Gist Road north of Sarver Lane). The largest occurrence of this vegetation on site is along Gist Road north of Sarver Lane consisting of approximately 4.0 acres. It also occurs just off site, along the creek south of Deer Springs Road. Southern coast live oak riparian forest extends beyond the site from the southern valley and is dominated by coast live oaks. Riparian habitats of any kind are usually considered by wildlife agencies to have very high wildlife value for the cover, nesting habitat, and food sources they provide. There are approximately 7.75 acres of southern coast live oak riparian forest within the project site. Habitat 1.8 miles north of Mesa Rock Road were excluded from the survey due to safety concerns. In addition, this location is planned as Open Space and, as such, no impacts are planned for this area.

Southern Willow Scrub (63320)

Southern willow scrub consists of dense, broadleaved, winter-deciduous riparian thickets dominated by several Salix species with scattered emergent Fremont cottonwood (*Populus fremontii* ssp. *fremontii*) and California sycamore (*Platanus racemosa*). Most stands are too dense which does not allow much understory development. Characteristic species in this community include arrowweed (*Pluchea sericea*), Fremont cottonwood, Goodding's willow, narrowleaf willow, arroyo willow, red willow (*S. laevigata*), and Pacific willow (*S. lasiandra*).

This vegetation primarily occurs along Twin Oaks Valley Road. Smaller isolated patches of this vegetation occur within an abandoned aircraft landing area in the northwest quadrant of the site and approximately 0.2 miles north of Deer Springs Place. Southern willow scrub on site contains a mix of arroyo willow, red willow, and narrowleaf willow (*Salix exigua*) with scattered Fremont's cottonwood. There are approximately 2.76 acres of southern willow scrub within the project site. Two small patches of southern willow scrub are mapped approximately 0.2 miles north of Deer Springs Road (east of Site 4) and excluded from the survey. This area consists of few large standing willow trees surrounded by dense and impassable chaparral. As a result, a close-up survey of this

area was not possible. However, no other riparian habitat was detected around these few trees. Consequently this area was designated as "Unsuitable Riparian Habitat" (Figure 3).

Southern Willow Scrub (63320)/Tamarisk Scrub (63810)

Southern willow scrub/tamarisk scrub consists of community characteristics of both community types. Southern willow scrub community is described above. Tamarisk scrub community is a weedy, virtual monoculture of any several *Tamarix* species which typically supplant native vegetation following major disturbance. This community type occurs in sandy or gravelly braided washes or intermittent streams often in areas where high evaporation increases the stream's saltiness. Tamarisk is known aggressive competitor in disturbed riparian corridors. Characteristic species of this community type include big saltbush (*Atriplex lentiformis*), Palmer's crinklemat (*Tiquilia palmeri*), saltgrass (*Distichlis spicata*), arrowweed, narrowleaf willow, five-stamen tamarisk (*Tamarix chinensis*) and saltcedar (*T. ramosissima*).

A small amount of southern willow scrub/tamarisk scrub exists in a previously graded area adjacent to the abandoned aircraft landing area in the northwest quadrant of the site. The topography of this area allows rainwater to pond and promotes this artificial wetland-like habitat, consisting of scattered willows and tamarisk. There are approximately 0.5 acres of southern willow scrub/tamarisk scrub within the project site.

METHODS

Suitable flycatcher and vireo habitat areas within the project study area, as described above, were surveyed eight times by Dudek wildlife biologists Brock A. Ortega (BAO, Permit #TE813545), Paul M. Lemons (PML, Permit # TE051248), and Melissa A. Blundell (MAB). Focused surveys for these species were initiated on May 3, 2013, and continued through July 13, 2013. Weather conditions, time of day and season were appropriate for the detection of flycatcher and vireo (Table 1).

Table 1
Survey Conditions

Date	Hours	Personnel	Focus	Conditions
5/3/13	0630–1030	MAB	LBVI	10–0% cloud cover (% cc), 0–5 mile per hour (mph) wind, 50–80 degrees Fahrenheit (°F)
5/14/13	0700–1015	MAB	LBVI	0% cc, 0–4 mph wind, 65°F–75ºF
5/23/13	0530–1100	BAO	LBVI/SWFL	50-100% cc, 0–3 mph wind, 58°F–70ºF
6/02/13	0530–1045	BAO	LBVI/SWFL	25-100% cc, 0–3 mph wind, 62°F–73ºF
6/17/13	0620–1100	MAB	LBVI	10–5% cc, 0–4 mph wind, 60°F–75ºF
6/24/13	0605–1100	PML	LBVI/SWFL	100–40% cc, 0–4 mph wind, 10mph gusts, 62°F–75ºF
7/03/13	0515–1045	BAO	LBVI/SWFL	0-20% cc, 0–3 mph wind, 62°F–80ºF
07/13/13	0530–1100	BAO	LBVI/SWFL	0-50% cc, 0–5 mph wind, 65°F–82ºF

Surveys for flycatcher were conducted concurrently with the vireo surveys. All surveys consisted of slowly walking a methodical, meandering transect within and adjacent to all riparian habitat. This route was arranged to cover all suitable habitat on site and within 500 feet of the site (depicted on Figure 4). A vegetation map (1 inch=100 feet) of the project site was available to record any detected vireo or flycatcher. Binoculars (10×50) were used to aid in detecting and identifying wildlife species.

The five surveys conducted for flycatcher followed survey methods described in accordance with *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher* (Sogge et al. 2010). Because there is a project planned in this area, a total of five surveys of the suitable habitat were conducted, with one visit between May 15 and May 31, two visits between June 1 and June 24, and two visits between June 25 and July 17. The surveys during the final period were separated by more than 5 days, per protocol requirements. A tape of recorded flycatcher vocalizations was used, approximately every 50–100 feet within suitable habitat, to induce flycatcher responses. If a flycatcher had been detected, playing of the tape would have ceased to avoid harassment.

A Section 10(a)(1)(A) permit is not required to conduct presence/absence surveys for vireo. The eight surveys for vireo followed the currently accepted *Least Bell's Vireo Survey Guidelines* (USFWS 2001), which states that a minimum of eight survey visits should be made to all riparian areas and any other potential vireo habitats during the period from April 10 to July 31. The site visits are required to be conducted at least 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Taped playback of vireo vocalizations were not used during the surveys. Surveys were conducted between dawn and 1200 and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather.

RESULTS

No southwestern willow flycatchers or least Bell's vireos were observed during the focused surveys. Six special-status species were observed during the surveys: Bell's sparrow[1] (*Artemisiospiza belli*), a USFWS Bird of Conservation Concern (BCC), CDFW Watch List species (CDFW WL), and American Bird Conservancy - U. S. Watch List of Birds of Conservation

1 The recently designated Bell's sparrow (*Artemisiospiza belli*) consists of A. b. belli and A. b. canescens, both formerly considered subspecies of the sage sparrow (*A. belli*) and now split from the sagebrush sparrow (*A. nevadensis*). The nominate form of Bell's sparrow (*A. b. belli*), as Bell's sage sparrow, is designated as a described above. It occurs in chaparral and coastal scrub communities along the Coast Ranges of central California and in the Transverse Ranges of southern California.

Concern (ABC WLBCC); Cooper's Hawk (*Accipiter cooperii*), a CDFW WL species; sharp-shinned hawk (*Accipiter striatus*), a CDFW WL species; Coastal California gnatcatcher (*Polioptila californica californica*), a federally threatened, CDFW Species of Special Concern, and ABC WLBCC; oak titmouse (*Baeolophus inornatus*), a BCC and ABC WLBCC; Nuttall's woodpecker (*Picoides nuttallii*), a BCC and ABC WLBCC.

Seventy-four wildlife species were observed during the focused surveys. A full list of wildlife species observed during the survey is provided in Appendix A. Data forms (Sogge et al. 2010) for willow flycatcher are included as Appendix B.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work. Please feel free to contact me at 760.479.4238 with questions or if you require additional information.

Sincerely,

Brock Ortega
Survey Coordinator
Permit # TE813545

Paul Lemons
Permit # TE051248

Att: Figures 1–4f
Appendices A–B

cc: Rita Brandin, Newland
Melissa Blundell, Dudek

REFERENCES

County of San Diego. 2010. *Report Format and Content Requirements: Biological Resources.* Land Use and Environmental Group, County of San Diego, California. Fourth Revision: September 15, 2010.

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Sogge, M.K., Ahlers, Darrell, and Sferra, S.J., 2010, A natural history summary and survey protocol for the southwestern willow flycatcher: U.S. Geological Survey Techniques and Methods 2A-10, 38 p.

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

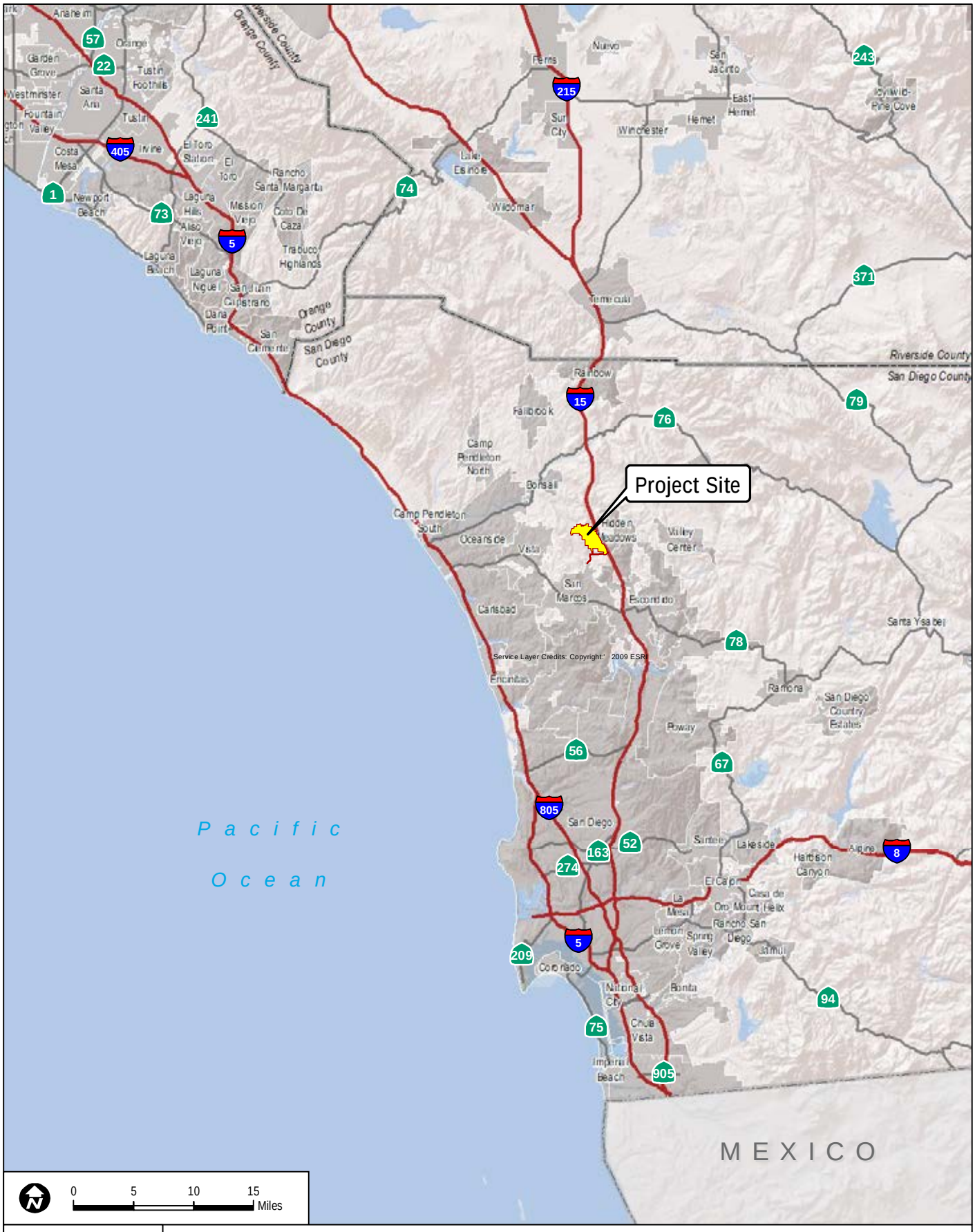

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FIGURE 1
Regional Map

Newland Sierra WLFI/LBVI Survey Report

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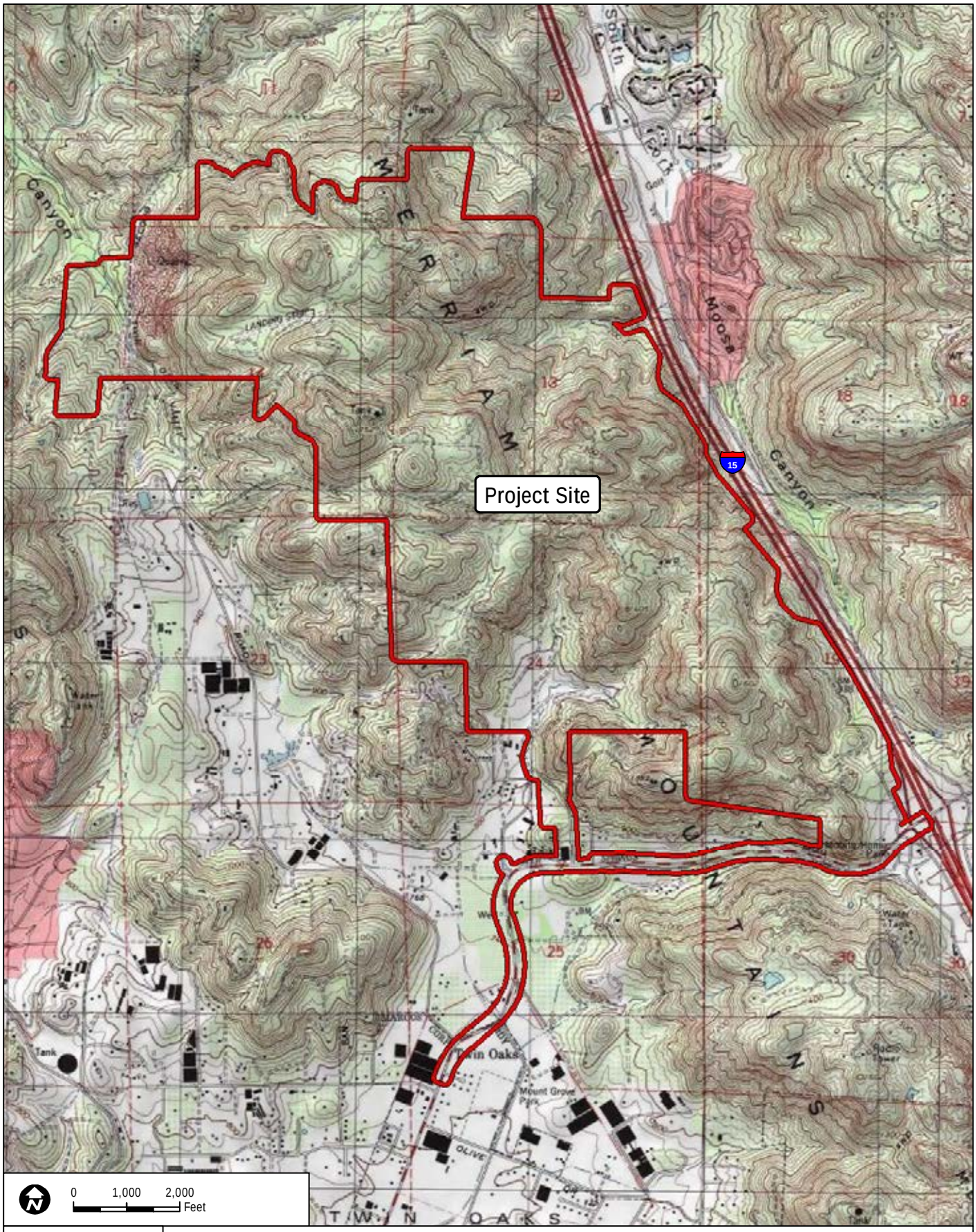

DUDEK

SOURCE: USGS 7.5-Minute Series Quadrangle.

FIGURE 2
Vicinity Map

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Newland Sierra WLFI/LBVI Survey Report

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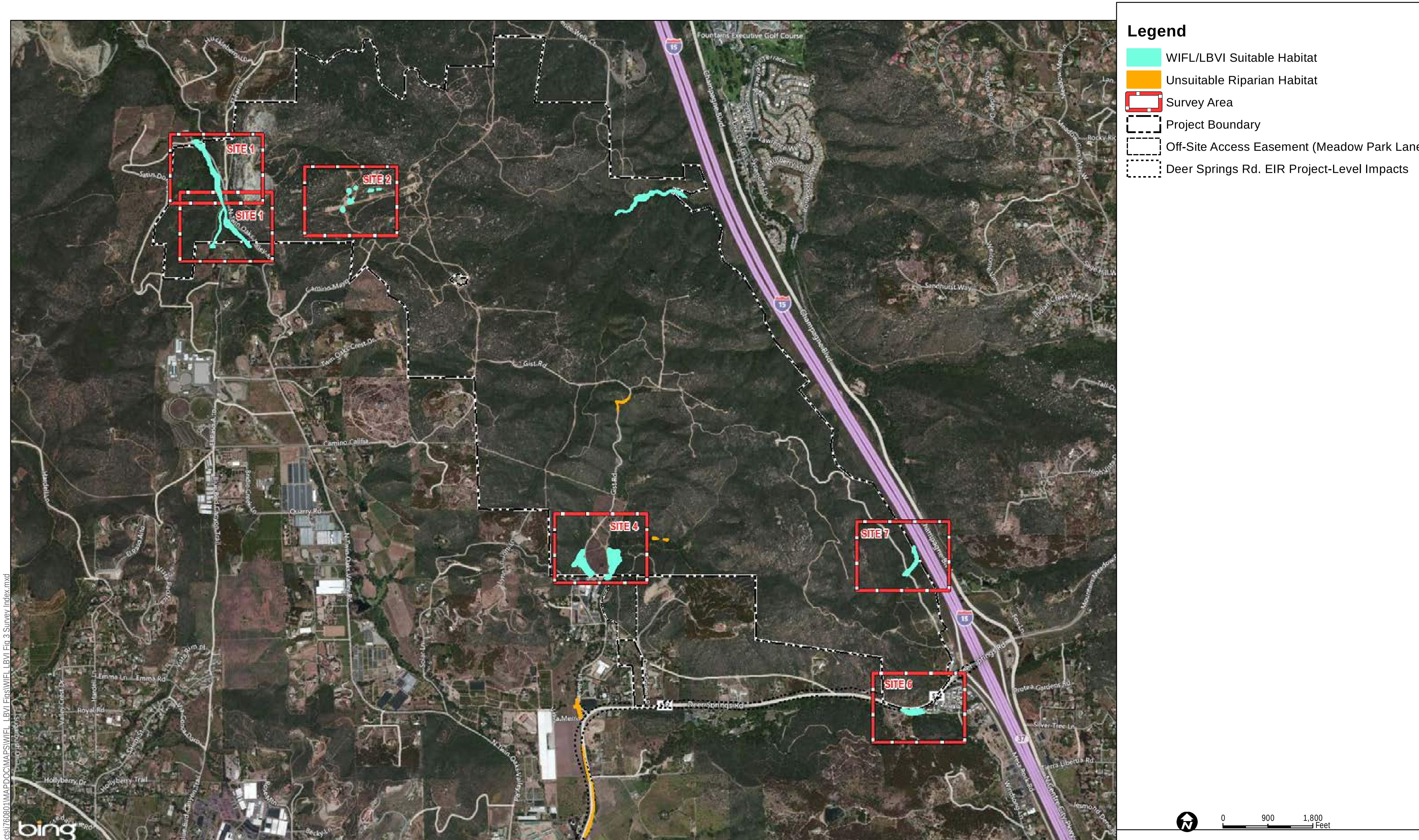

AERIAL SOURCE: BING MAPPING SERVICE

FIGURE 3

WIFL/LBVI Survey Route Index Map

DUDEK

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Newland Sierra WLFI/LBVI Survey Report

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