Table 5-5
Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ MSCP/ County Group	Project Area Habitat Total Acres	Development Footprint[a] Habitat Total Acres	Basis for Impact Evaluation	Significance Determination
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2	1,225.9	765.2	Observed within the Project Area. There is 1,225.9 acres of modeled habitat within the Project Area. Modeled habitat for this species includes chamise chaparral, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, mulefat scrub, non-native grassland, and southern mixed chaparral.	San Diego black-tailed jackrabbit is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of San Diego black-tailed jack rabbit habitat to the MSCP and Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a configuration that preserves genetic exchange and species viability. Thus, direct impacts to this species would be reduced to less than significant.
Yuma myotis (*Myotis yumanensis*)	USFWS: None CDFW: None MSCP: Not Covered County: Group 2	1,259.8	785.1	High potential to occur. There is 1,259.8 acres of modeled habitat within the Project Area. Modeled habitat for this species includes chamise chaparral, cismontane alkali marsh, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, non-native grassland, and southern mixed chaparral.	Yuma myotis is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of Yuma myotis habitat to the MSCP and Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a configuration that preserves genetic exchange and species viability. Thus, direct impacts to this species would be reduced to less than significant.

Table 5-5
Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ MSCP/ County Group	Project Area Habitat Total Acres	Development Footprint[a] Habitat Total Acres	Basis for Impact Evaluation	Significance Determination
San Diego desert woodrat (*Neotoma lepida intermedia*)	USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2	1,248.4	783.8	High potential to occur. There is 1,248.4 acres of modeled habitat within the Project Area. Modeled habitat for this species includes chamise chaparral, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, mulefat scrub, non-native grassland, and southern mixed chaparral.	San Diego desert woodrat is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of San Diego desert woodrat habitat to the MSCP and Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a configuration that preserves genetic exchange and species viability. Thus, direct impacts to this species would be reduced to less than significant.
Big free-tailed bat (*Nyctinomops macrotis*)	USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2	1,252.0	784.0	High potential to occur. There is 1,252.0 acres of modeled habitat within the Project Area. Modeled habitat for this species includes chamise chaparral, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, non-native grassland, and southern mixed chaparral.	Big free-tailed bat is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of big free-tailed bat habitat to the MSCP and Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a configuration that preserves genetic exchange and species viability. Thus, direct impacts to this species would be reduced to less than significant.

Table 5-5
Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ MSCP/ County Group	Project Area Habitat Total Acres	Development Footprint[a] Habitat Total Acres	Basis for Impact Evaluation	Significance Determination
Mule deer (*Odocoileus hemionus*)	USFWS: None CDFW: None MSCP: Covered County: Group 2	1,267.1	792.3	Observed within the Project Area. There is 1,267.1 acres of modeled habitat within the Project Area. Modeled habitat for this species includes chamise chaparral, cismontane alkali marsh, coastal sage scrub, developed, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, non-native grassland, and southern mixed chaparral.	Conservation provided through the Otay Ranch RMP and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to covered sensitive species, and would reduce impacts to less than significant.
Cougar (*Puma concolor*)	USFWS: None CDFW: None MSCP: Covered County: Group 2	1,351.2	798.2	Observed within the Project Area (indirect observation of scat). There is 1,351.2 acres of modeled habitat within the Project Area. Modeled habitat for this species includes chamise chaparral, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, non-native grassland, and southern mixed chaparral.	Conservation provided through the Otay Ranch RMP and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to covered sensitive species, and reduce impacts to less than significant.

Table 5-5
Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ MSCP/ County Group	Project Area Habitat Total Acres	Development Footprint[a] Habitat Total Acres	Basis for Impact Evaluation	Significance Determination
American badger (*Taxidea taxus*)	USFWS: None CDFW: SSC MSCP: Covered County: Group 2	940.6	534.2	Observed within the Project Area by sign only. There is 940.6 acres of modeled habitat within the Project Area. Modeled habitat for this species includes coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, mulefat scrub, and non-native grassland.	Conservation provided through the Otay Ranch RMP and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to covered sensitive species, and reduce impacts to less than significant.
Invertebrates					
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	USFWS: FE CDFW: None MSCP: Not Covered Per County Interpretation of *Southwest Ctr for Biological Diversity v. Bartel*, 470 F.Supp.2d 1118 (S.D. Cal. 2006). County: Group 1	49 features were identified as potential to support vernal pool branchiopods for purposes of focused surveys; all but four (within the Project Area) were considered unoccupied by listed fairy shrimp or vernal pool indicator plants. Also, all are road ruts were not considered vernal	None	No San Diego fairy shrimp have been observed within the Development Footprint. San Diego fairy shrimp have been confirmed in three features within the Conserved Open Space within Planning Area 19 and in one feature within the Planning Area 19 Otay Ranch RMP Preserve. These features would not be affected by the Proposed Project since they are located within Conserved Open Space, which would have a biological open space easement.	No Impact to known occupied features. No San Diego fairy shrimp were identified in the Development Footprint. Impacts to vernal pools/features inhabited by San Diego fairy shrimp would be avoided by preserving occupied features within a biological open space easement, realigning Proctor Valley Road, and redesigning development in Planning Area 19. One feature, A27, is located within the Otay Ranch RMP Preserve. Because the Proposed Project would not disturb or otherwise

Table 5-5
Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ MSCP/ County Group	Project Area Habitat Total Acres	Development Footprint[a] Habitat Total Acres	Basis for Impact Evaluation	Significance Determination
		pools. Four features (A22, A23, A27 and D4) support San Diego fairy shrimp.			affect vernal pools/features and would not impact San Diego fairy shrimp, no mitigation is required. Nevertheless, the County is requiring a preventative mitigation measures for this species which includes compliance with any conditions required by the USFWS for take of San Diego fairy shrimp (M-BI-7).
Monarch (*Danaus plexippus*)	USFWS: None CDFW: None MSCP: Not Covered County: Group 2	3.6	0.2	Observed within the Project Area. There is 3.6 acres of modeled wintering habitat within the Project Area. Monarch butterfly wintering sites are considered special status by CDFW (2016a). Wintering sites in California are associated with wind-protected groves of large trees (primarily eucalyptus or pine) with nectar and water sources nearby, generally near the coast. Modeled habitat for this species includes eucalyptus woodland and oak riparian forest.	Suitable habitat includes eucalyptus woodlands and habitat supporting larval host plants (i.e., non-native grasslands), but no winter roosts have been detected within the Project Area. Therefore, impacts to suitable habitat for this species would be less than significant.
Quino checkerspot butterfly (*Euphydryas editha quino)*	USFWS: FE CDFW: None MSCP: Not Covered County: Group 1	1,348.4 acres of potential habitat	793.7 acres of potential habitat	High potential to occur. There is 1,348.4 acres of suitable habitat within the Project Area based on habitat assessments (Appendix D).	The Proposed Project would affect potential Quino checkerspot butterfly habitat. This impact would be significant absent

Table 5-5
Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ MSCP/ County Group	Project Area Habitat Total Acres	Development Footprint[a] Habitat Total Acres	Basis for Impact Evaluation	Significance Determination
					mitigation (**Impact W-4**).
Hermes Copper (*Lycaena hermes*)[b]	USFWS: FC CDFW: None MSCP: Not Covered County: Group 1	26.8 acres of suitable habitat	18 acres of suitable habitat; includes temporary impacts since those will not specifically be revegetated with host plants	Moderate potential to occur. There is approximately 26.8 acres mapped as suitable Hermes copper habitat. Results of the focused surveys were negative, but this species has been recorded in the Jamul Mountains quadrangle (CDFW 2017).	The Proposed Project would affect suitable Hermes copper butterfly habitat. These impacts would be significant absent mitigation (**Impact W-6**).

Status Legend
Federal
BCC: USFWS Birds of Conservation Concern
FC: Candidate for federal listing as threatened or endangered
FE: Federally listed as endangered
FT: Federally listed as threatened
State
FP: CDFW Fully Protected Species
SSC: California Species of Special Concern
WL: CDFW Watch List Species
Notes:
[a] The Development Footprint includes temporary and permanent impacts to habitat within the Otay Ranch RMP Preserve in Village 14 and Planning Areas 16/19, as well as portions of impacts within the LDA in Planning Area 16. The Development Footprint also includes temporary and permanent impacts associated with off-site road improvements.
[b] Since Hermes copper is a USFWS federally listed candidate, it is included within the table. However, there is only a moderate potential for this species to occur within suitable habitat in the Project Area.

For purposes of context, the County and the City of Chula Vista approved the Otay Ranch planned community on October 28, 1993, as part of an interjurisdictional task force and public outreach, planning, and environmental review process. When the County adopted the Otay Ranch GDP/SRP, it approved development and the RMP Preserve areas. These development and Preserve areas were mirrored in the Otay Ranch RMP, which was approved concurrent with the Otay Ranch GDP/SRP. The Otay Ranch RMP created the "hardline" Preserve boundary of 11,375 acres, as depicted in Exhibit 24 of the Otay Ranch RMP (City of Chula Vista and County of San Diego 1993b). Correspondingly, the Otay Ranch RMP and Exhibit 24 created a hardline development boundary that included the entire Development Footprint of the Proposed Project. This Preserve boundary, including the Project Area, was then incorporated into the MSCP County Subarea Plan. For example, the Implementing Agreement for the MSCP County Subarea Plan specifically cites the 11,375-acre Otay Ranch Preserve as being part of the required mitigation for the South County segment (USFWS et al. 1998). Thus, these assumptions were built into the "hardline" that marked the boundary between approved development and the Preserve. The Proposed Project is consistent with the assumptions set forth in both the Otay Ranch RMP and the MSCP County Subarea Plan regarding the size of the Otay Ranch Preserve (i.e., 11,375 acres). Within the applicant's ownership is 426.7 acres of the 11,375 acres of Otay Ranch RMP Preserve. Thus, if the Proposed Project were to reduce the size of the Otay Ranch RMP Preserve within its ownership to less than 426.7 acres, such an impact would be considered potentially significant.

In this case, the Proposed Project is consistent with the MSCP County Subarea Plan and Otay Ranch RMP Preserve, and does not need or request a boundary adjustment. The Proposed Project would contribute 426.7 acres to the Otay Ranch RMP Preserve and would have an additional 72.4 acres (71.8 acres of which is upland habitat) of Conserved Open Space that could be added to the Otay Ranch RMP Preserve.

For purposes of assessing the Proposed Project's impacts on golden eagle, the remaining issues center around the Proposed Project's compliance with the species-specific impact limitations set forth in Table 3-5 of the MSCP Plan (MSCP 1998) and incorporated into the County's USFWS-issued Section 10 take permit.

Table 3-5 of the MSCP Plan discusses anticipated impacts of the entire MSCP, including impacts associated with development of Village 14 and Planning Areas 16/19 (MSCP 1998). For golden eagle, the Project Area is located in what Table 3-5 refers to as the "Rancho San Diego" nesting territory (MSCP 1998) (more often referred to as the "San Miguel Mountain" nesting territory). Table 3-5 makes the following statement regarding the MSCP Plan's impacts on the Rancho San Diego nesting territory: "Development under the plan will result in <10% loss of habitat in the nesting habitat; nesting territory *should remain viable*" (MSCP 1998).

Because the Proposed Project is consistent with the approved hardline Preserve area in the MSCP County Subarea Plan and has no impacts to foraging beyond those assumed in Table 3-5 of the MSCP Plan, it is consistent with Table 3-5. In addition, a number of projects that the MSCP Plan anticipated would be constructed in the Rancho San Diego/San Miguel Mountain golden eagle nesting territory have not been built and instead have been placed into the Preserve (e.g., Hidden Valley Estates), thereby reducing the amount of habitat loss assumed in Table 3-5. Further, no eagles have attempted to nest in the Rancho San Diego/San Miguel Mountain territory since 2005, and the nesting territory has apparently been unoccupied since 2007 (Appendix C) (USFWS 2014b; WRI 2010).

The County's Section 10 permit, which incorporates by reference Table 3-5 of the MSCP Plan, imposes three additional conditions on future developments that are otherwise consistent with the MSCP Plan: the development may not result in lethal take of any golden eagle individuals; the development may not cause direct human disturbance of any active golden eagle nest; and the development must maintain a 4,000-foot buffer between project-related human disturbances and any active golden eagle nest.

As described, the Proposed Project would not encroach into or reduce the size of the previously approved hardline Preserve, would not require a Preserve boundary adjustment, would not result in the lethal take of golden eagles, would not disturb an active golden eagle nest, and would not place human disturbance within 4,000 feet of an active golden eagle nest. Thus, there is sufficient evidence to conclude that the Proposed Project can be implemented in a manner consistent with the impact findings set forth in Table 3-5 of the MSCP Plan, including those for golden eagle. The details of this analysis are provided below.

Consistency with MSCP Plan and MSCP County Subarea Plan Development Assumptions

Under the terms of the MSCP Plan and Otay Ranch RMP, compliance/consistency with the MSCP operates to mitigate to less than significant the Proposed Project's impacts on "covered" species, including golden eagle. Nevertheless, CEQA requires that the County, as lead agency, assess and disclose those impacts. To this end, Dudek modeled the foraging golden eagle habitat that exists within the Project Area, based on the habitat types identified in Table 3-5 of the MSCP Plan, as being suitable for the species. These habitat types are coastal sage scrub, chaparral, grassland, and oak woodland. Although the MSCP Plan identifies these vegetation communities as suitable for nesting and foraging, golden eagle nesting habitat is actually restricted to large trees and cliffs adjacent to those vegetation communities. Because the Project Area does not contain large trees or cliffs, this analysis focuses on suitable foraging habitat only. Based on Table 3-5 of the MSCP Plan (MSCP 1998), the following vegetation communities mapped within the Project Area would be considered suitable foraging habitat: granitic chamise

chaparral (including disturbed), granitic southern mixed chaparral, coastal sage scrub (including *Baccharis* dominated and disturbed), and non-native grassland (see Table 5-6).

Table 5-6
MSCP-Defined Golden Eagle Suitable Foraging Habitat within the Project Area

Habitat Types/Vegetation Communities	Project Area Total Acres	Development Footprint (acres)[a]			
		Village 14	*Planning Areas 16/19*[b]	*Otay Ranch RMP Preserve*	*Off-Site Improvement Areas*
Granitic chamise chaparral	307.8	223.0	—	7.1	18.8
Granitic chamise chaparral (disturbed)	0.8	0.8	—	—	—
Granitic southern mixed chaparral	99.2	—	10.0	—	4.3
Diegan coastal sage scrub	711.1	113.3	222.8	6.3	28.8
Diegan coastal sage scrub (disturbed)	93.0	34.2	11.0	5.9	9.6
Diegan coastal sage scrub – *Baccharis* dominated (including disturbed)	1.3	—	—	—	1.3
Non-native grassland	112.2	32.0	34.1	1.6	14.9
Subtotal	*1,325.5*	*403.2*	*277.9*	*20.9*	*77.8*
Total	**1,325.5**	**779.8**			

Notes: Totals may not add up due to rounding.

[a] Includes the following temporary impacts: Village 14 = 3.9 acres; Planning Areas 16/19 = <0.01 acre; Otay Ranch RMP Preserve = 9.8 acres; off-site improvement areas = 48.8 acres.

[b] Includes 11.6 acres of permanent impacts to LDA.

As shown in Table 5-6, there is 1,325.5 acres of golden eagle foraging habitat in the Project Area, of which 779.8 acres would be impacted by the Proposed Project (**Impact W-3**). Pursuant to the MSCP Plan foraging habitat definition (MSCP 1998), the Proposed Project would place 390.7 acres of suitable golden eagle foraging habitat into the Otay Ranch Preserve through the required conveyance (a total of 776.8 acres must be conveyed to the Preserve) for Proposed Project impacts. An additional 145.3 acres of potential habitat within the Project Area would remain undeveloped, with an open space easement placed over these areas. Of that 145.3 acres, 72.4 acres would be designated as Conserved Open Space, which may have the potential to be designated as Otay Ranch RMP Preserve.

To reiterate, however, the MSCP Plan and Otay Ranch RMP assumed this level of development and corresponding habitat loss. It likewise assumed that the remainder of the suitable foraging habitat would be placed in the Preserve, thereby entitling the applicant to take authorization under the County's Section 10 permit and establishing that the Proposed Project's impacts on golden eagle have been mitigated to less than significant.

To confirm the Proposed Project's consistency with the MSCP County Subarea Plan, Dudek reviewed the sections in the Otay Ranch RMP, the MSCP County Subarea Plan, and the

Implementing Agreement as they related to the Otay Ranch RMP Preserve and compared the areas of designated Otay Ranch RMP preserve for Village 14 and Planning Areas 16/19 with the Preserve acreage of the Proposed Project. Dudek determined that the designated areas of Otay Ranch RMP Preserve within the Project Area are exactly the same as what was identified in the Otay Ranch GDP/SRP and incorporated into the Otay Ranch RMP, MSCP Plan, MSCP County Subarea Plan, and Implementing Agreement. Specifically, the Otay Ranch RMP Preserve within Village 14 is 254.1 acres, and the Preserve within Planning Areas 16/19 totals 150.7 acres. These acreage comparisons show that the Proposed Project is consistent with the Preserve assumptions of the MSCP Plan, the MSCP County Subarea Plan, and the Otay Ranch RMP. As further evidence of the Proposed Project's consistency with the MSCP County Subarea Plan, the applicant has not requested—and does not need—an MSCP Preserve boundary adjustment. This is because the Proposed Project would not encroach into the MSCP Preserve; instead, the Proposed Project would respect the initial Preserve boundary presented in the Otay Ranch RMP and the MSCP County Subarea Plan.

Given that the Proposed Project is consistent with the MSCP Plan and Otay Ranch RMP and their "hardline" preserve assumptions, it is reasonable to conclude that the Proposed Project can be implemented consistent with the habitat loss findings set forth in Table 3-5 of the MSCP Plan and incorporated by reference into the USFWS-issued Section 10 permit, since as the MSCP Preserve was deemed to be satisfactory per the Biological Opinion (USFWS 1998) to mitigate for development impacts within the MSCP County Subarea Plan.

Consistency with MSCP Plan and Section 10 Permit Conditions for Disturbance to Golden Eagle

As indicated above, the MSCP Plan and Section 10 permit include conditions that protect individual eagles and eagle nests. Specifically, both documents prohibit lethal take of eagles, direct human disturbance of active eagle nests, and placement of human disturbances within 4,000 feet of any active eagle nest. The applicant retained H.T. Harvey & Associates to survey the Project Area to determine distances between the Proposed Project's anticipated "human disturbances" and the nearest active golden eagle nest. H.T. Harvey & Associates found that the nearest nesting location—Rancho San Diego/San Miguel Mountain—was destroyed by the Harris Fire in 2007 and has not been reestablished. H.T. Harvey & Associates also found that the nesting platforms that USFWS and BLM installed near Jamul as substitute nesting locations have not attracted nesting golden eagles (Appendix C). In the absence of any active nesting activity at these two locations, the Proposed Project's "human disturbance" would be more than 5 miles from the next nearest active golden eagle nest, which is located well to the south of the Project Area (Appendix C).

In light of these findings, Dudek, in consultation with H.T. Harvey & Associates, determined that the Proposed Project would not cause lethal take of golden eagles, would not result in the

human disturbance of any active golden eagle nest, and would not place human disturbance within 4,000 feet of any active golden eagle nest (Appendix C). Based on these findings, the Proposed Project is consistent with all conditions of the Otay Ranch RMP, the MSCP County Subarea Plan, and the Section 10 take permit.

Impact W-4: Permanent Direct Impacts to Quino Checkerspot Butterfly Suitable Habitat

After the Otay Ranch RMP and MSCP County Subarea Plan were adopted and implemented, Quino checkerspot butterfly was listed as a federally endangered species under FESA. Quino checkerspot butterfly is not addressed under the Otay Ranch RMP or the MSCP County Subarea Plan, and no coverage for take authorization of Quino checkerspot butterfly or its habitat is provided through the MSCP. No Quino checkerspot butterflies were observed within the Project Area during the 2015 or 2016 habitat assessments and focused surveys; however, this species was observed at one location within the Project Area in 2001, and just outside of the Project Area in 2003 and 2005–2007 (see Section 4.6.1). Based on available information (CDFW 2016c; USFWS 2016), no Quino checkerspot butterflies have been observed within the Project Area since 2007. Focused surveys were conducted for the Project Area 2007 to 2014 and resulted in no sightings of Quino checkerspot butterfly. In 2017, however, USFWS documented seveal individuals in the vicinity of the Project Area. Two individuals were observed west of the central portion of the Village 14 Preserve, four individuals were observed immediately off site west of Proctor Valley Road, again along the west-central portion of Village 14. Two more individuals were observed immediately east of Proctor Valley Road (one individual) and just west of Planning Area 16 (one individual) (USFWS 2017).

The 2016 survey and results are considered valid because the surveys were conducted in accordance with the 2016 USFWS Survey Protocol, Quino checkerspot butterfly was documented in the immediate vicinity[13] during the same time when surveys for the Proposed Project were conducted, and host plant and site conditions were adequate for detecting Quino checkerspot butterfly. Based on the information gathered from the 2014, 2015, and 2016 surveys, the Development Footprint does not contain occupied Quino checkerspot butterfly habitat. Consequently, absent future occupation of the Project Area by Quino checkerspot butterfly, implementation of the Proposed Project would not impact Quino checkerspot butterfly individuals or occupied Quino checkerspot butterfly habitat (based on 2015 and 2016 focused survey data). However, the Development Footprint contains 793.7 acres of habitat that could potentially support Quino checkerspot butterfly. Therefore, the Proposed Project would result in

[13] Quino checkerspot butterfly was observed in 2016 approximately 1 mile southeast of the southernmost portion of the Village 14 Development Footprint (Dudek 2016).

impacts to 803.3 acres of potential habitat that could support Quino checkerspot butterfly populations (Appendix D) (**Impact W-4**).

Impact W-5: Permanent Direct Impacts Resulting in Take of Birds under the MBTA

The MBTA prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, killing, or attempting to commit any of these acts (16 U.S.C. 703 et seq.). Note that impacts to habitat do not constitute take under this definition unless such impacts result in death of a migratory bird. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The executive order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

If any active nests or the young of nesting special-status bird species are impacted through direct grading, these impacts would be considered significant, absent mitigation, based on the MBTA (**Impact W-5**).

Impact W-6: Permanent Direct Impacts to Hermes Copper Butterfly Suitable Habitat

Based on the information gathered from the 2015 and 2017 habitat assessments and surveys, the Project Area does not contain occupied Hermes copper butterfly habitat. Consequently, based on these studies and absent future occupation of the Project Area by Hermes copper butterfly, implementation of the Proposed Project would not impact Hermes copper butterfly individuals or occupied Hermes copper butterfly habitat. However, the Development Footprint contains 18.0 acres of habitat that could support Hermes copper butterfly. Approximately 8.8 acres of habitat would not be impacted by the Proposed Project (6.5 acres within the Otay Ranch RMP Preserve, 1.5 acres within Conserved Open Space, and 0.8 acres within non-impacted LDA). Although no Hermes copper butterflies were observed in the Project Area, there is the possibility that Hermes copper butterfly could use or occupy the Project Area in the future. Therefore, the Proposed Project would result in impacts to 18.0 acres of habitat that could support future Hermes copper butterfly populations (**Impact W-6**).

5.3.2 Indirect Impacts to Special-Status Wildlife Species

5.3.2.1 Temporary Indirect Impacts

Impact W-7: Temporary Indirect Impacts to Special-Status Wildlife Species

Short-term, construction-related, or temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources would primarily result from construction activities (**Impact W-7**). Species potentially affected by such activities include coastal California gnatcatcher and nesting raptors that have the potential to use the eucalyptus trees along Proctor Valley Road North. Indirect impacts to sensitive bird species may occur if construction is conducted during the breeding/nesting season for coastal California gnatcatcher (February 15 through August 15) and raptors (January 15 through July 31). These potential impacts are described in detail below.

Generation of Fugitive Dust. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Noise. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). Both development- and construction-related noise generators could have an indirect impact on wildlife species.

Construction-related noise and vibration could occur from equipment used during site preparation and grading, including vegetation clearing, and construction of the Proposed Project. Construction noise and vibration levels would vary from hour-to-hour and day-to-day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. Construction may also involve blasting to break up bedrock close to the ground surface. Typically, most of the noise generated by blasting is very low in frequency—below the frequency range audible to humans. As detailed in the Acoustical Analysis Report for the Proposed Project, construction blasting generates a maximum noise level of approximately 94 A-weighted decibels (dBA) at a distance of 50 feet (Dudek 2018; FHWA 2006). Construction would occur during the day, and no construction is proposed to take place at night.

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate nearby surface waters and groundwater and indirectly impact wildlife species through poisoning or altering suitable habitat.

Increased Human Activity. Construction activities can deter wildlife from using habitat areas near the Development Footprint and increase the potential for vehicle collisions.

Invasive Predators and Non-Native Animal Species. Trash from construction-related activities could attract invasive predators such as ravens and coyotes that could impact the wildlife species in the Project Area. Landscaping stock could bring in Argentine ants or other pests that could compete with native wildlife. The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Section 6.1.

5.3.2.2 Permanent Indirect Impacts

Impact W-8: Permanent Indirect Impacts to Special-Status Wildlife Species

Potential long-term or permanent indirect impacts to special-status wildlife species would include generation of fugitive dust; off-road-vehicle use; non-native, invasive plant and animal species introduction; habitat fragmentation; increased human activity; alteration of the natural fire regime; and altered hydrology (**Impact W-8**). All special-status wildlife species at the Preserve/development interface could potentially be impacted by temporary indirect impacts. These potential impacts are described in detail below.

Generation of Fugitive Dust. The effects of fugitive dust on special-status wildlife are described in Section 5.3.2.1, Temporary Indirect Impacts.

Non-Native, Invasive Plant and Animal Species. The effects of non-native, invasive plant and animal species on special-status wildlife are similar to what is described in Section 5.3.2.1. In addition, trash can attract invasive predators such as ravens and coyotes, which could impact the wildlife species in the Project Area.

Increased Human Activity. The effects of increased human activity on special-status wildlife are similar to what is described in Section 5.3.2.1. An increased human population increases the risk for damage to suitable habitat for wildlife species. In addition, increased human activity can deter wildlife from using habitat areas near the Development Footprints. Increasing the human presence adjacent to development could also increase the amount of domestic pets within the Otay Ranch RMP Preserve. All dogs within the open space would be required to be on leash, and the HOA would be responsible for informing all homeowners of the impacts that domestic pets can have on native habitat and wildlife.

Alteration of the Natural Fire Regime. The effects of altered natural fire regime on special-status wildlife are similar to what is described in Section 5.3.2.1. Alterations of plant communities could affect wildlife that relies on those habitat types.

Altered Hydrology. The effects of altered hydrology on special-status wildlife are similar to what is described in Section 5.3.2.1. Alterations of plant communities could affect wildlife that relies on those habitat types. Changes in plant composition could affect the native vegetation communities and wildlife habitat.

Lighting. Urban development, recreational facilities, and general human activity (e.g., night-time light from vehicles, home security systems) would result in light pollution and possibly disrupt dark skies. Long-term lighting may deter nocturnal wildlife from traversing through developed areas and restrict movements to area of open space.

Noise. Increased human activity in the Project Area is expected to result in long-term noise effects in the area. Noise is expected to be greatest during daylight hours and, therefore, would be more of a disturbance to those species that are active during the daytime, since the noise levels would be less at night. Nocturnal wildlife would not be significantly impacted while foraging or moving in open space areas. Noise pollution is not anticipated to decrease breeding of any special-status species.

Development-related noise such as traffic, operation of landscape maintenance equipment and tools (e.g., mowers, blowers, trimmers, wood chippers), active recreation at parks (particularly at night), and loud music from vehicles and residences can all have an effect on wildlife. The Proposed Project includes a Preserve Edge Plan, which provides for a 100-foot buffer between the Otay Ranch RMP Preserve and development. The Preserve edge would act as a buffer for noise generated from development (RH Consulting et al. 2017).

The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Section 6.1.

5.4 Jurisdictional Aquatic Resources

5.4.1 Direct Impacts to Jurisdictional Aquatic Resources

5.4.1.1 Temporary Direct Impacts

Impact V-10: Temporary Direct Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

Short-term, construction-related, or temporary direct impacts to jurisdictional riparian habitat and non-wetland waterways would primarily result from construction activities (**Impact V-10**) (see Table 5-7). Temporary impacts to jurisdictional resources would total 1.08 acres, including 0.06 acres of cismontane alkali marsh, 0.31 acres of coastal and valley freshwater marsh, 0.29 acres of

mulefat scrub, 0.06 of southern willow scrub, and 0.35 acres of unvegetetated stream channel. All temporarily impacted resources would be returned to pre-construction conditions following Proposed Project construction. Clearing, trampling, or grading of jurisdictional aquatic resources outside of designated construction zones could also occur and would be significant (**Impact V-10**). These potential impacts could damage individual plants and alter their ecosystem, creating gaps in vegetation that allow exotic, non-native plant species to become established, thus increasing soil compaction and leading to soil erosion.

Table 5-7
Impacts to ACOE/RWQCB/CDFW Jurisdictional
Aquatic Resources within Village 14 and Planning Areas 16/19 (Acres)

Habitat Types/Vegetation Communities	Code[a]	Project Area Total	Development Footprint[b]	
			Perm.	*Temp.*
Cismontane alkali marsh (including disturbed)	52310	7.78	1.04	0.06
Coastal and valley freshwater marsh	52410	0.43	0.12	0.31
Mulefat scrub	63310	0.98	0.09	0.29
Southern coast live oak riparian forest	61310	0.71	—	—
Southern willow scrub	63320	0.32	0.21	0.06
	Subtotal	*10.23*	*1.45*	*0.73*
Unvegetated channel	64200	3.06	1.27	0.35
Open water	64100	0.44	0.16	—
	Subtotal	*3.50*	*1.43*	*0.35*
	Total	**13.73**	**2.87**	**1.08**

Perm. = permanent impacts; Temp. = temporary impacts

[a] Oberbauer et al. 2008.

[b] The Development Footprint includes areas within Village 14 and Planning Areas 16/19 designated for development, road grading within the LDA, private HOA open space not considered for Conserved Open Space, roads within the Otay Ranch RMP Preserve, and off-site road improvement areas. This table does not include the 0.05 acres of potential impacts that may be required to further widen Proctor Valley Road North.

The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Sections 7.1 and 8.1 of this report.

5.4.1.2 Permanent Direct Impacts

Impact V-11: Permanent Direct Impacts to Jurisdictional Aquatic Resources within Project Area (Including Off-Site Improvement Areas)

The Proposed Project would permanently affect 1.43 acres of ephemeral non-wetland waters/ streambed and open water, as well as 1.45 acres of wetlands/riparian habitat (**Impact V-11**) (Figures 5-1 and 5-1a through 5-1cc; Table 5-7).

Of the 2.87 acres of permanent impacts shown in Table 5-7, 0.28 acres of impacts would be to off-site jurisdictional aquatic resources, mostly due to planned improvements to Proctor Valley Road (Impact V-11) (Table 5-8). Approximately 0.08 acres of this permanent impact would occur in the City of San Diego MSCP Cornerstone Lands. In addition, the improvements to Proctor Valley Road would permanently disturb 0.12 acres of wetland/riparian habitat in the City of Chula Vista. Impacts associated with Planning Areas 16/19 roads, Proctor Valley Road North, and Proctor Valley Road Central would impact 0.02 acres of wetland/riparian habitat within CDFW-owned lands. The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Sections 7.1 and 8.1. In addition, there are 0.05 acres of potential impacts to jurisdictional resources that may be required to further widen Proctor Valley Road North. The widening would result in minor impacts to cismontane alkali marsh (0.02 acres), mulefat scrub (0.01 acres), and southern willow scrub (0.02 acres). These acreages are not represented in Table 5-8.

Table 5-8
Impacts to Off-Site ACOE/RWQCB/CDFW Jurisdictional Aquatic Resources by Jurisdiction (Acres)

Habitat Types/ Vegetation Communities	City of Chula Vista		City of San Diego (Cornerstone Lands)		CDFW-Owned Lands						Total Impacts	
	Proctor Valley Road South		*Proctor Valley Road South*		*Planning Areas 16/19 Roads*		*Proctor Valley Road North*		*Proctor Valley Road Central*			
	Perm	*Temp*	*Perm*	*Temp*	*Perm*	*Temp*	*Perm*	*Temp*	*Perm*	*Temp*	*Perm*	*Temp*
ACOE/ RWQCB Wetlands and CDFW Riparian Habitat												
Cismontane alkali marsh (including disturbed)	—	—	—	—	—	<0.01	—	—	—	—	—	<0.01
Mulefat scrub	<0.01	0.01	0.05	0.20	—	—	—	—	—	—	0.05	0.21
Freshwater marsh	0.12	0.31	—	—	—	—	—	—	—	—	0.12	0.31
Southern willow scrub	—	—	—	—	—	—	0.02	0.04	—	—	0.02	0.04
Subtotal	*0.12*	*0.32*	*0.05*	*0.20*	*—*	*<0.01*	*0.02*	*0.04*	*—*	*—*	*0.19*	*0.56*
ACOE/RWQCB Non-Wetland Waters and CDFW Streambed												
Unvegetated channel	—	—	0.03	0.24	0.01	0.01	—	—	0.05	0.08	0.09	0.33
Subtotal	*—*	*—*	*0.03*	*0.24*	*—*	*—*	*—*	*—*	*0.05*	*0.08*	*0.09*	*0.33*
Total ACOE, RWQCB, and CDFW Resources	**0.12**	**0.32**	**0.08**	**0.44**	**0.01**	**0.02**	**0.02**	**0.04**	**0.05**	**0.08**	**0.28**	**0.89**

ACOE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife

Perm. = permanent impacts; Temp. = temporary impacts

5.4.2 Indirect Impacts to Jurisdictional Aquatic Resources

5.4.2.1 Temporary Indirect Impacts

Impact V-12: Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

Potential short-term or temporary indirect impacts to jurisdictional resources in the Project Area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides) (**Impact V-12**). Potential short-term indirect impacts that could affect all the jurisdictional resources that occur adjacent to development are described below.

Generation of Fugitive Dust. The effects of fugitive dust on jurisdictional aquatic features are similar to those described in Section 5.1.2 for vegetation communities.

Changes in Hydrology. The effects of changes in hydrology on jurisdictional aquatic features are similar to those described in Section 5.1.2 for vegetation communities.

Chemical Pollutants. The effects of chemical pollutants on jurisdictional aquatic features are similar to those described in Section 5.1.2 for vegetation communities.

The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Sections 7.1 and 8.1.

5.4.2.2 Permanent Indirect Impacts

Impact V-13: Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

Long-term or permanent indirect impacts could result from the proximity of the Proposed Project to jurisdictional aquatic resources after construction. Permanent indirect impacts that could affect jurisdictional resources include generation of fugitive dust, chemical pollutants, altered hydrology, non-native invasive species, increased human activity, alteration of the natural fire regime, and shading (**Impact V-13**). Each of these potential indirect impacts is discussed below.

Generation of Fugitive Dust. The effects of fugitive dust on jurisdictional resources are similar to those described in Section 5.1.2 for vegetation communities.

Chemical Pollutants. The effects of chemical pollutants on jurisdictional resources are similar to those described in Section 5.1.2 for vegetation communities.

Altered Hydrology. As described in Section 5.1.2, for purposes of analyzing potential indirect impacts associated with hydrology, urban runoff associated with landscaping and irrigation is described here. Water would be used for landscaping within residential units and maintained shared spaces (e.g., parks). These sources may alter the on-site hydrologic regime. However, potential impacts would be reduced by design features such as biofiltration/hydromodification basins, drainage improvements for off-site road improvements, and disconnection of impervious surfaces such as pitching sidewalks and driveways to pervious landscaped areas. Long-term indirect impacts to jurisdictional waters associated with altered hydrology are not expected.

Non-Native, Invasive Plant and Animal Species. The effects of non-native, invasive plant and animal species on jurisdictional aquatic resources are similar to those described in Section 5.1.2 for vegetation communities.

Increased Human Activity. The effects of increased human activity on jurisdictional resources are similar to those described in Section 5.1.2 for vegetation communities.

The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Sections 7.1 and 8.1.

5.5 Habitat Connectivity and Wildlife Corridors

5.5.1 Direct Impacts to Habitat Connectivity and Wildlife Corridors

5.5.1.1 Temporary Direct Impacts

Impact WLC-1: Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors

Short-term, construction-related, or temporary direct impacts to habitat connectivity and wildlife corridors would primarily result from construction activities. Temporary impacts both on site and off site would total 67.1 acres (Table 5-1). In addition, construction-related impacts to vegetation communities, such as clearing, trampling, or grading of vegetation outside designated construction zones, could occur in the absence of avoidance and mitigation measures. These potential impacts could affect wildlife movement through these areas by reducing cover and food sources (**Impact WLC-1**). The significance of these potential impacts was determined through application of the County's Significance Guidelines, as described in Section 9.1, Guidelines for the Determination of Significance, of this report.

5.5.1.2 Permanent Direct Impacts

The Project Area meets the County's definition of a core wildlife area: a large block of habitat (typically 500 acres or more, not limited to a project's boundaries, although smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species (County of San Diego 2010a). Currently the Project Area functions as part of a large habitat block, as discussed in Section 4.8, Habitat Connectivity and Wildlife Corridors. One of the objectives of the Otay Ranch RMP (City of Chula Vista and County of San Diego 1993b) was to design the Preserve to provide adequate habitat linkages and wildlife corridors to accommodate gene flow, increased foraging habitat, access to larger habitat areas by larger predators, and increased overall wildlife movement based on the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992b). The Ogden Wildlife Corridor Studies, which are recognized as the foundational wildlife corridor studies for the area, describe the Proctor Valley area as providing a northerly wildlife movement corridor between San Miguel Mountain and the Jamul Mountains. The Proposed Project Development Footprint is located within the originally designated developable lands as identified in the Otay Ranch RMP (City of Chula Vista and County of San Diego 1993b), which relied on the findings of the Ogden study. The Proposed Project would, therefore, retain the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992b) and the BRCAs identified in the Final MSCP (MSCP 1998). As shown in Figure 5-3, Wildlife Corridor and Habitat Linkages, the Project Area is surrounded by public lands, including approximately 750 acres owned by BLM east of the Otay Ranch RMP Preserve, and approximately 4,000 acres owned by CDFW directly east of the BLM land. There is additional CDFW-owned land along the northern boundaries of the Project Area, and a large core of USFWS-owned land between the Project Area and Sweetwater Reservoir. With the Otay Ranch RMP Preserve and surrounding publicly owned lands, the Proposed Project would allow connectivity between the corridors and linkages identified in the Ogden study (1992b). As described in the Otay Ranch RMP (City of Chula Vista and County of San Diego 1993b), revisions to the Proctor Valley Development Footprint were specifically made as part of the original Otay Ranch GDP/SRP approval in 1993 for purposes of resolving general Otay Ranch RMP Preserve design and wildlife habitat connectivity issues. The revisions included the following (City of Chula Vista and County of San Diego 1993b):

- Significant areas of development were eliminated from the proposed development in central Proctor Valley on both the northerly and southerly boundaries of the regional wildlife corridor.
- The proposed conference center in the middle of the Proctor Valley Parcel was eliminated to avoid any encroachment into the wildlife corridor.

- Development in the inverted L was eliminated from the ravine and moved well back onto the ridgetop so that animals could access the ravine, which leads them northwest over the saddle and into the Sweetwater Reservoir.[14]
- All of the proposed housing along the ridgetop above the lake at the southerly entrance to Proctor Valley, and the southernmost portions of the proposed development bubble in central Proctor Valley, were eliminated to reduce impacts to coastal sage and the local wildlife corridor from Jamul Mountain to Proctor Valley.

With these revisions, the Proctor Valley regional wildlife corridor (i.e., R1 in Figures 4-5 and 5-3) was designed to become an extensive linkage, with a required minimum of 1,300 feet at the northwest end to 2,200 feet at the southeast end, resulting in protection of rim-to-rim topography. As shown in Figure 5-3, the corridor ranges from approximately 1,600 feet wide to almost 2,600 feet wide where it passes through the Project Area. To the west of the Project Area, corridor R1 passes through public lands owned by USFWS much of the way to Sweetwater Reservoir (Figure 5-3). The local corridor L4 is located to the east of PV1 and to the west of other Village 14 development. The Ogden corridor study states that this corridor is 500 to 700 feet wide (Ogden 1992b). As L4 passes through the western portion of development, the corridor is 800 to 900 feet wide. As the corridor passes across Proctor Valley Road at the northern end of the Project Area, the corridor ranges from 1,600 to 3,000 feet. L4 primarily passes through CDFW-owned land and portions of the Proposed Project applicant's Otay Ranch RMP Preserve, and connects to local corridor L3 to the east, which passes through BLM and other publicly owned lands.

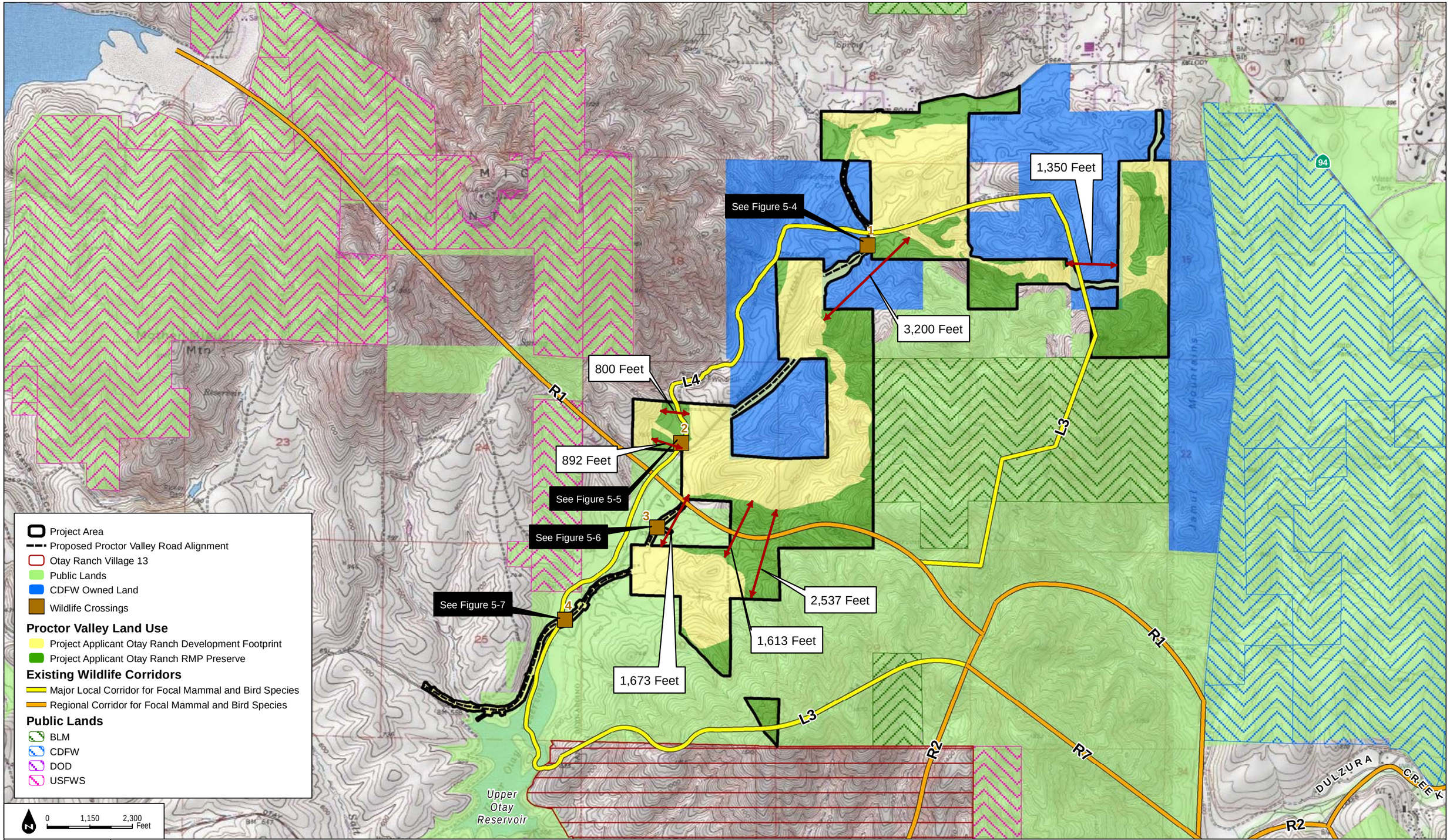
The focal species chosen for the Baldwin Otay Ranch Wildlife Corridors Studies Report (Ogden 1992b) were larger mammals such as mule deer, mountain lion (*Pelis concolor*), and bobcat (*Pelis rufus*), as well as two bird species: California gnatcatcher and coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*). These five species were chosen as the focal species for the corridor study because they "naturally occur in low densities and that are unwilling or unable to cross large areas of developed or otherwise unfavorable habitat" (Ogden 1992b). According to Ogden, corridors are necessary for the conservation of these species. Other species expected to use this crossing include coyotes, rabbits, birds common in chaparral communities, and a variety of invertebrates.

Since development conforms to the original Otay Ranch GDP/SRP boundary, the Proposed Project would not intrude or otherwise diminish the function of the Proctor Valley regional wildlife corridor (see Figure 5-3). Given the dense chaparral in this area, larger mammals such as coyote and mule deer would be able to use this corridor to move north or south because the

[14] Note, the "inverted L" is not a part of this analysis and has been subsequently acquired for Preserve.

chaparral would provide visual cover from human activity where the corridor passes through the development. Birds and invertebrates would be able to move freely through this area, including where the corridor passes through development, since it is wide enough to provide uninterrupted movement. With the open space connections, corridor widths, and wildlife crossings (discussed below) between L3 and L4 corridors, the Proposed Project is not anticipated to impact long-term wildlife movement between the Jamul Mountains and San Miguel Mountain.

Additionally, in conformance with the Otay Ranch GDP/SRP and Otay Ranch RMP, three wildlife crossings would be provided under Proctor Valley Road to allow for wildlife movement through natural topography (see Figure 5-3 and Figures 5-4 through 5-6, Wildlife Crossings). Another wildlife crossing would be provided where L4 crosses an internal road (see Figures 5-3 and 5-7). Guidelines for culverts or wildlife crossings, according to the MSCP County Subarea Plan, include minimizing roads that cross wildlife corridors; installing fencing that channels wildlife to underpasses or culverts; designing underpasses such that the length-to-width ratio is less than 2; using bridges rather than tunnels; installing sound insulation, including a natural substrate that is vegetated; providing line-of-sight through the tunnel; and including low-level illumination, if needed (County of San Diego 1997). One of the guidelines under Policy 4.1 of the Otay Ranch RMP is to incorporate wildlife crossings into design of infrastructure facilities. The Otay Ranch RMP does not provide guidance regarding the specific design requirements for crossings (City of Chula Vista and County of San Diego 1993b). Therefore, the design of the wildlife crossings were developed to incorporate the MSCP County Subarea Plan design criteria guidelines to the extent feasible and also to be consistent with the scientific literature to the maximum extent practical. The wildlife crossings were all designed to have fencing to funnel wildlife movement; to have a natural bottom, where feasible, with native vegetation at either end; and to have the size and height of opening so that there is direct line of site from one end to the other. Any grading that occurs would be restored to native habitat to encourage wildlife use. Because there is natural light within the crossings, low-level illumination would not be included.



SOURCE: USGS 7.5-minute Topographic Map; Hunsaker 2017; SANGIS 2003; OGDEN 1992

DUDEK

FIGURE 5-3

Wildlife Corridor and Habitat Linkages

Otay Ranch Village 14 and Planning Areas 16/19

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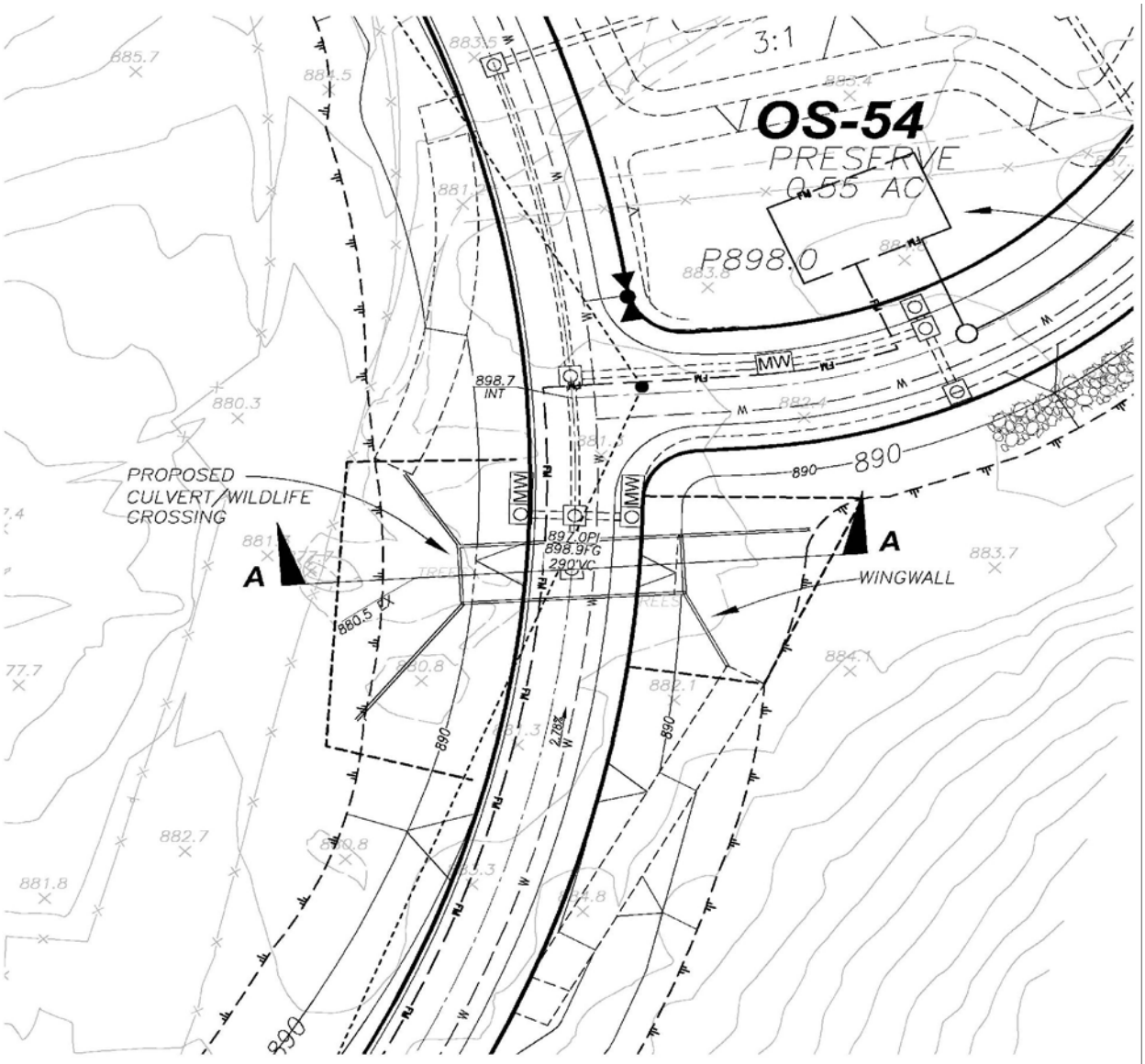

SECTION A

NOT TO SCALE

OPENNESS RATIO CALCULATIONS

LENGTH = 80' WIDTH = 22' HEIGHT = 8'-3"
= A/L (M)
= 161 SF / 80' = 2.01'
OPENNESS RATIO = 0.61 M

PREPARED BY:
HUNSAKER & ASSOCIATES SAN DIEGO, INC

WILDLIFE CROSSING
OTAY RANCH VILLAGE 14
COUNTY OF SAN DIEGO

SHEET 1 OF 1

SOURCE: Hunsaker 2017

FIGURE 5-4
Wildlife Crossings

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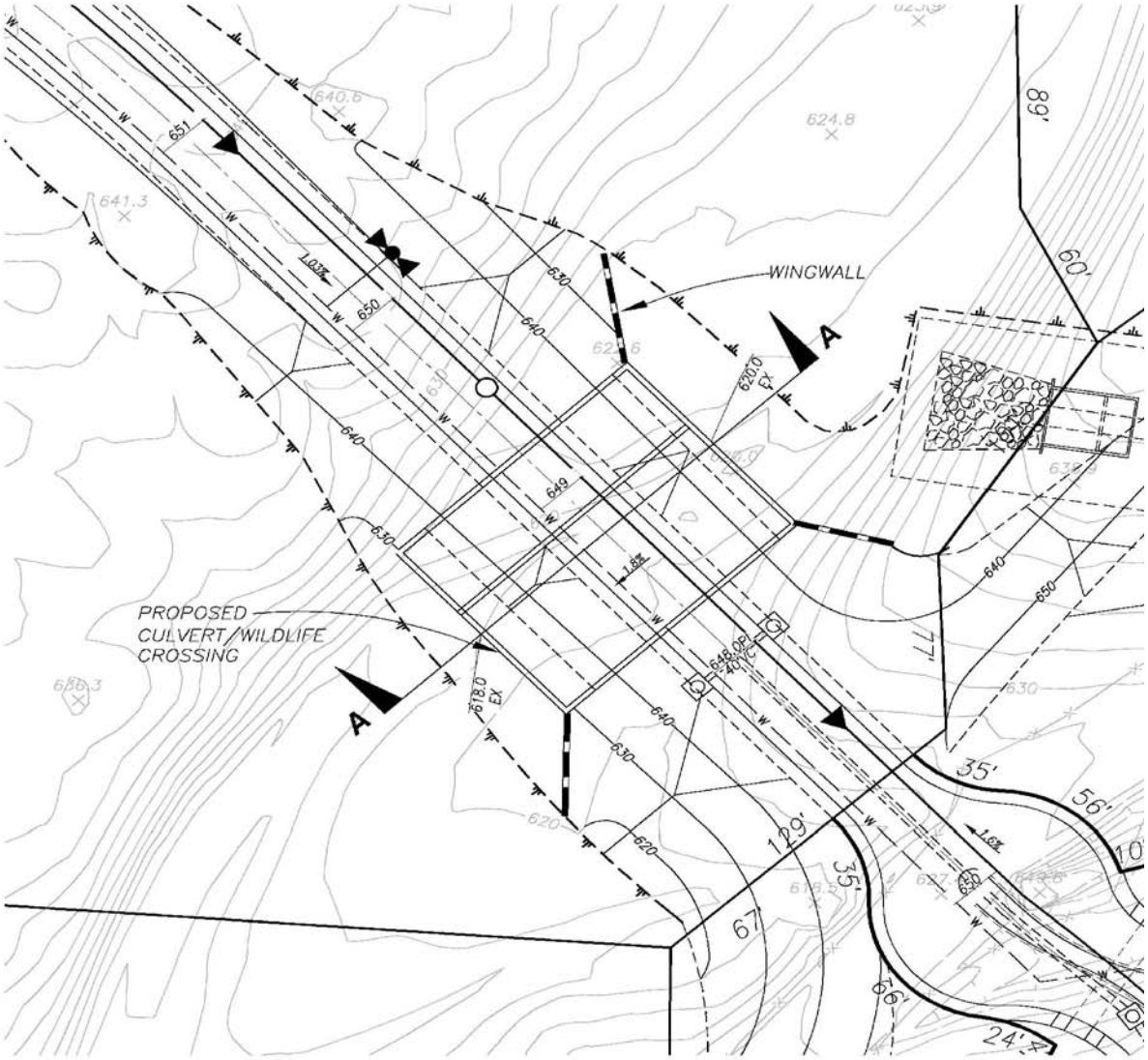

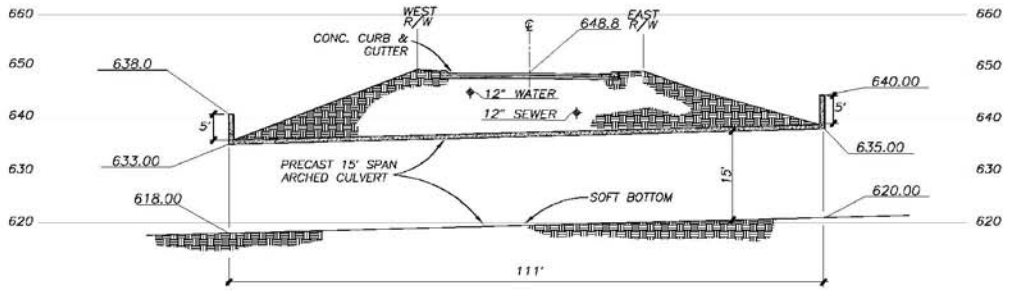

SECTION A

NOT TO SCALE

OPENNESS RATIO CALCULATIONS

LENGTH = 111' WIDTH = 84' HEIGHT = 15'

= A/L (M)
=663' SF / 111' = 5.9'
OPENNESS RATIO = 1.8 M

PREPARED BY:	WILDLIFE CROSSING OTAY RANCH VILLAGE 14 COUNTY OF SAN DIEGO	SHEET 1 OF 1
HUNSAKER & ASSOCIATES SAN DIEGO, INC.		

SOURCE: Hunsaker 2017

FIGURE 5-5
Wildlife Crossings

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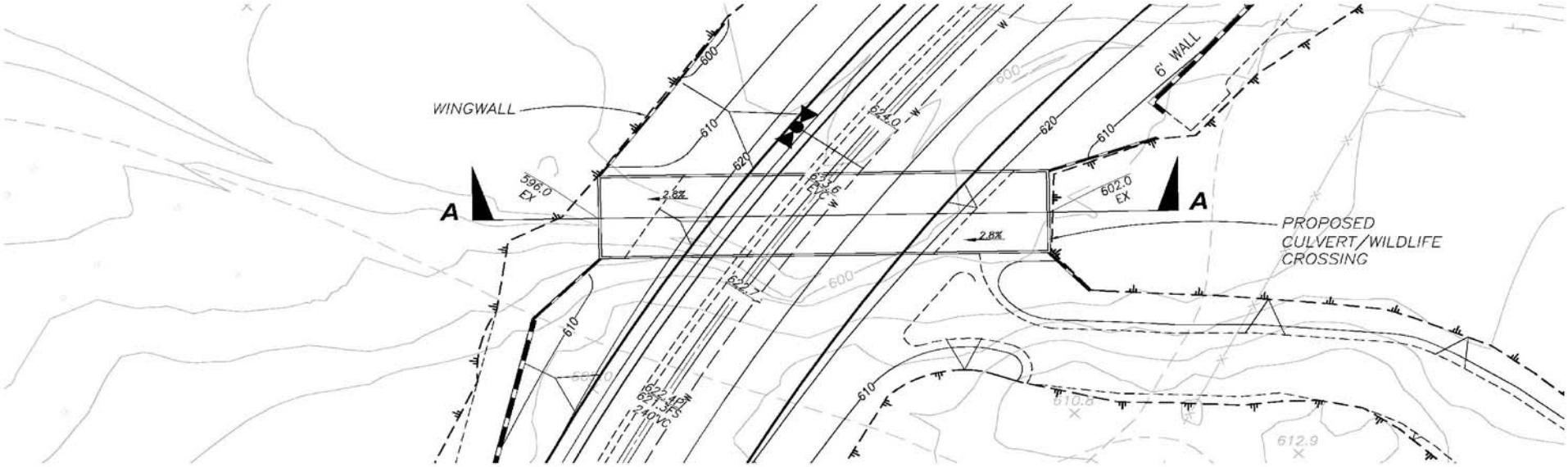

SECTION A

NOT TO SCALE

OPENNESS RATIO CALCULATIONS

LENGTH = 142' WIDTH = 34' HEIGHT = 12'
= A/L (M)
= 360 SF / 142' = 2.53'
OPENNESS RATIO = 0.78 M

PREPARED BY: HUNSAKER & ASSOCIATES SAN DIEGO, INC.

WILDLIFE CROSSING
VILLAGE 14
CITY OF SAN DIEGO

SHEET 1 OF 1

DUDEK

SOURCE: Hunsaker 2017

FIGURE 5-6
Wildlife Crossings

Otay Ranch Village 14 and Planning Areas 16/19

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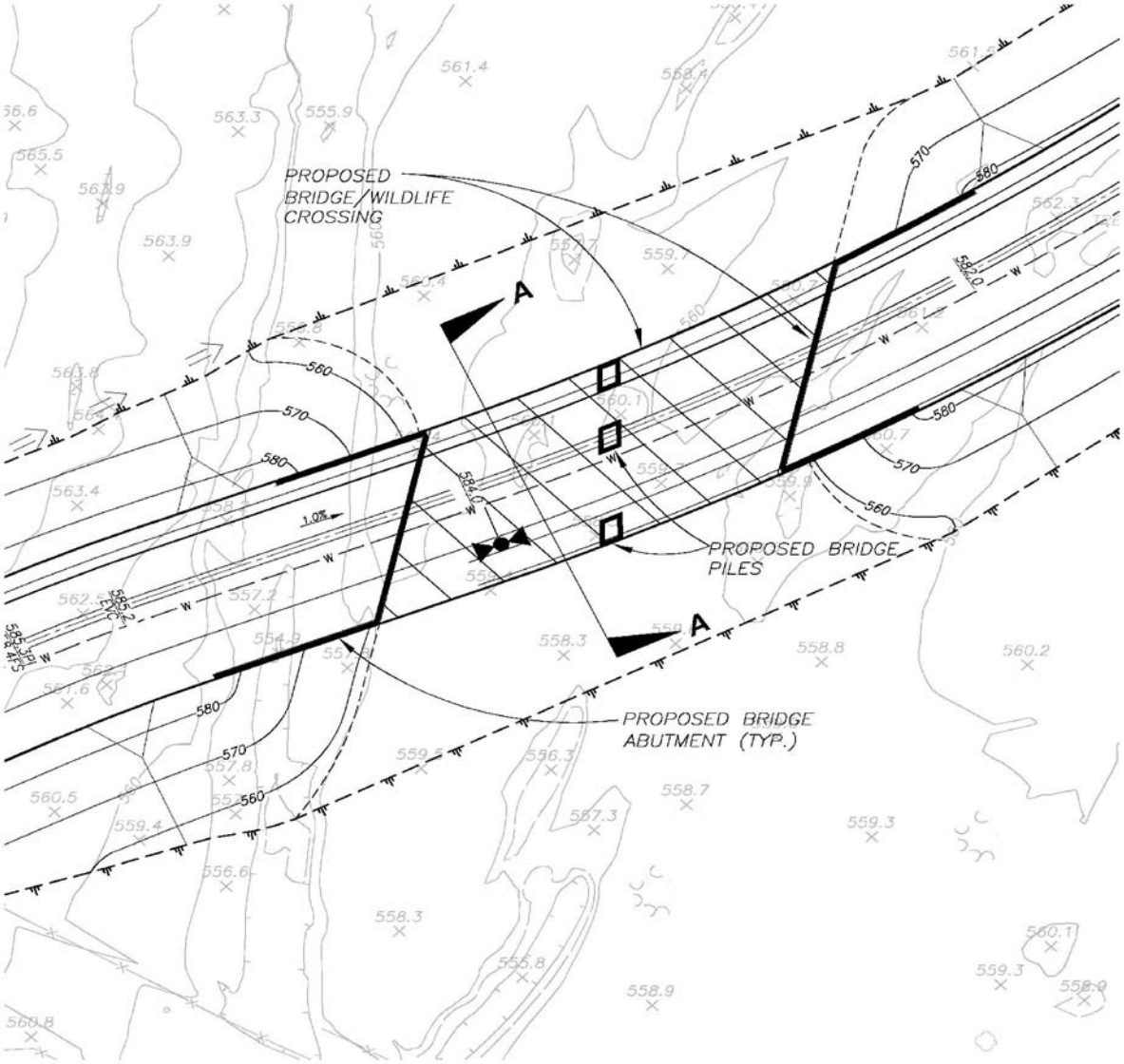

SECTION A

NOT TO SCALE

OPENNESS RATIO CALCULATIONS

LENGTH = 68' WIDTH = 160' HEIGHT = 12'

= A/L (M)
= 1,920 SF / 160' = 12'
OPENNESS RATIO = 3.7 M

PREPARED BY:	WILDLIFE CROSSING OTAY RANCH VILLAGE 14 COUNTY OF SAN DIEGO	SHEET 1 OF 1
HUNSAKER & ASSOCIATES SAN DIEGO, INC.		

SOURCE: Hunsaker 2017

FIGURE 5-7
Wildlife Crossings

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All of the wildlife crossings were designed according to scientific literature that emphasize openness as a significant factor in determining the relative effectiveness of structures in terms of use by deer and other species (Reed et al. 1975). Openness is a measure of ambient light in the passage; the larger the factor, the less of a narrow "tunnel" appearance of the structure. The openness factor was calculated using the following equation: (height x width)/length in meters (Reed et al. 1975). A study from Donaldson (2005) indicates that, for deer, the critical feature for using a culvert is the height of the culvert. According to that study, culverts must be at least 12 feet high to be used by deer. Even at very low openness ratio, deer would use the culvert if it had a height of 12 feet. Reed et al. (1979) suggest a minimum openness ratio of 0.6 meters for mule deer underpasses. Each of these achieves the higher 0.6 meters openness ratio suggested by Foster and Humphrey (1995). Therefore, either a minimum height of 12 feet or a combination of width, height, and length dimensions such that the openness factor (height x width)/length) is a minimum of 0.6 meters, is appropriate for mule deer. Providing a movement corridor suitable for mule deer ensures that other large mammals would also use the corridor. The openness ratio provides a quantitative analysis to be used to indicate the success of a wildlife crossing. One of the MSCP County Subarea Plan design criteria guidelines is to provide a crossing with the size and height of opening so that there is direct line of site from one end to the other. Since the openness ratio was designed to measure of ambient light in the passage, all crossings were designed to meet the minimum openness ratio rather than relying solely on the 2:1 length to width ratio suggested in the MSCP County Subarea Plan.

Wildlife Crossing 1 is located along the northern portion of Proctor Valley Road (see Figures 5-3 and 5-4). It would be an arched culvert which allows the crossing to have a soft bottom. The crossing would be 8.3 feet high at the highest point, 80 feet long, and approximately 22 feet wide, making the length-to-width ratio 3.5:1. Winged retaining walls would be placed on either side of the crossing to direct drainage flows and wildlife into the crossing. The openness ratio for the crossing would be 0.61 meters. The openness ratio for the crossing would be 0.61 meters and meets the minimum openness ratio.. Wildlife Crossing 2 would be an internal road crossing located along local corridor L4 in between two areas of development (see Figures 5-3 and 5-5). It would be pre-cast span arched culvert which allows for a soft bottom. The crossing would be 15 feet high at the highest point, 111 feet long, and 84 feet wide, making the length-to-width ratio less than 2:1. The openness ratio for this crossing would be 1.8 meters. The crossing meets the MSCP Plan's design criteria guideline of less than a 2:1 length-to-width ratio, and more importantly meets the minimum openness ratio.

Wildlife Crossing 3 would be located along the central portion of Proctor Valley Road and would provide a connection across the road for regional corridor R1 (see Figures 5-3 and 5-6). It would be a pre-cast span-arched culvert which allows for a soft bottom. Currently, there are no

crossings provided for wildlife movement to cross Proctor Valley Road. As shown in Figure 5-6, the crossing would be under the road and be 12 feet high at the highest point, 142 feet long, and 34 feet wide, making the length-to-width ratio 4:1. The openness ratio for this crossing would be 0.78 meters which meets the minimum openness ratio. The crossing would be placed approximately 20 feet below road grade of Proctor Valley Road, thus encouraging wildlife to use the undercrossing as opposed to crossing at-grade.

Wildlife Crossing 4 would be located along the southern portion of Proctor Valley Road within City of San Diego Cornerstone Lands. There is currently a crossing at this location that is not specific for wildlife, but is designed to allow water to flow under and over Proctor Valley Road. In its current design, larger wildlife cross this area at-grade. The revised crossing would provide for improved wildlife movement and limit wildlife from crossing the road. As shown in Figure 5-7, the crossing would be underneath the road and be 12 feet high, 68 feet long, and 160 feet wide, with three bridge piles located within the center, making the length-to-width ratio less than 1:1. The openness ratio for this crossing would be 3.7 meters (Figure 5-7). The bridge would have a natural bottom to convey flows for the Proctor Valley drainage. The crossing would meet the MSCP Plan's design criteria guideline of a less than 2:1 length-to-width ratio, and more importantly would meet the minimum openness ratio.

5.5.2 Indirect Impacts to Habitat Connectivity and Wildlife Corridors

5.5.2.1 Temporary Indirect Impacts

Impact WLC-2: Temporary Indirect Impacts to Habitat Connectivity and Wildlife Corridors

As discussed in Section 5.5.1.2, Permanent Direct Impacts, the Project Area functions as part of a large habitat block, and the Proposed Project would not have any direct impacts on habitat linkages or movement corridors, but would preserve existing linkages and corridors. However, wildlife movement through these corridors may be indirectly impacted by adjacent development (**Impact WLC-2**). Potential short-term indirect impacts to habitat connectivity and wildlife corridors could result from increased human activity, lighting, and noise during construction (**Impact WLC-2**). These potential impacts are described below.

Increased Human Activity. Proposed Project construction would likely take place during the day and would not affect wildlife species such as mammals that are most active in evenings and at night. Wildlife species such as birds, rabbits, and lizards are active in the day, but use a variety of habitats and could continue using other areas within and adjacent to the Project Area for wildlife movement. Increasing the human presence adjacent to development could also increase

the amount of domestic pets within the Preserve. Because of that, all dogs within the open space would be required to be on leash while the Homeowners Association will be responsible for informing homeowners of the impacts that domestic pets can have on native habitat and wildlife.

Lighting. Some localized security-related lighting may be required during construction and/or operation; lighting would conform to County of San Diego outdoor lighting requirements. These impacts would be short term; therefore, lighting associated with the Proposed Project is not expected to result in significant impacts to wildlife movement related to lighting.

Noise. Proposed Project construction would result in noise and ground vibrations through the use of mechanized equipment and increased traffic. Noise would most likely only be a disturbance to those species that are active during the day, since noise levels are less at night. Most wildlife species that would use the area as a habitat corridor are nocturnal, and, therefore, would not be impacted while foraging and moving at night. Noise pollution is not anticipated to hamper breeding of any special-status species.

The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Section 9.1.

5.5.2.2 Permanent Indirect Impacts

Impact WLC-3: Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors

Long-term indirect impacts to habitat connectivity and wildlife corridors would include habitat fragmentation, human activity, lighting, and noise from the proposed urban development, recreational facilities, and human activity (**Impact WLC-3**). Each of these potential indirect impacts is discussed below.

Habitat Fragmentation. The Proposed Project would impact native vegetation communities, resulting in potential habitat fragmentation. Habitat fragmentation can reduce diversity of species, spread invasive species, and reduce access to important habitats (Lovich and Ennen 2011). In addition, habitat fragmentation and isolation of wildlife populations may cause extinction of local populations as a result of reduction in total habitat area, which reduces effective population sizes, and insularization of local populations, which affects dispersal rates (Wilcove et al. 1986; Wilcox and Murphy 1985).

Increased Human Activity. The effects of increased human activity would be the same as is discussed in Section 5.5.2.1.

Lighting. The effects of increased lighting would be the same as is discussed in Section 5.5.2.1.

Noise. The effects of increased noise would be the same as is discussed in Section 5.5.2.1.

The significance of these potential impacts was determined through application of the County's Significance Guidelines, described in Section 9.1.

6 SPECIAL-STATUS SPECIES

6.1 Guidelines for the Determination of Significance

The County's guidelines for determining significance for biological resources (County of San Diego 2010a) that follow 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 from the Proposed Project.

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 CDFG [now CDFW] or USFWS.

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

B. The project would impact an on-site population of a County List A or B plant species, or a County Group 1 animal species, or a species listed as a state Species of Special Concern (SSC). Impacts to these species are considered significant; however, impacts of less than 5% of the individual plants or of the sensitive species' habitat on a Project Area may be considered less than significant if a biologically based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of that plant or animal taxon.

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

D. The project may impact arroyo toad aestivation, foraging, or breeding habitat. Any alteration of suitable habitat within 1 kilometer (3,280 feet) in any direction of occupied breeding habitat or suitable stream segments (unless very steep slopes or other barriers constrain movement) could only be considered less than significant if a biologically based determination can be made that the project would not impact the aestivation or breeding behavior of arroyo toads.

E. The project would impact golden eagle habitat. Any alteration of habitat within 4,000 feet of an active golden eagle nest could only be considered less than significant if a biologically based determination

can be made that the project would not have a substantially adverse effect on the long-term survival of the identified pair of golden eagles.

F. The project would result in the loss of functional foraging habitat for raptors. Impacts to raptor foraging habitat is considered significant; however, impacts of less than 5% of the raptor foraging habitat on a Project Area may be considered less than significant if a biologically based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of any raptor species.

G. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, although smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species. Alteration of any portion of a core habitat could only be considered less than significant if a biologically based determination can be made that the project would not have a substantially adverse effect on the core area and the species it supports.

H. 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 species 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 to adversely affect sensitive species.

I. The project would impact occupied burrowing owl habitat.

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

K. The project would impact occupied Hermes copper habitat.

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

Species	Breeding Season
Coastal cactus wren	February 15 to August 15

Species	Breeding Season
Least Bell's vireo	March 15 to September 15
Southwestern willow flycatcher	May 1 to September 1
Tree-nesting raptors	January 15 to July 15
Ground-nesting raptors	February 1 to July 15
Golden eagle	January 1 to July 31
Light-footed clapper rail	February 15 to September 30

6.2 Analysis of Project Effects

6.2.1 Project Effects Relevant to Guideline 4.1.A (Federally Listed and State-Listed Species)

Only one federally and state-listed plant species, Otay tarplant, occurs within the Project Area. Otay tarplant is listed as federally threatened and state endangered. Otay tarplant was observed within the proposed Proctor Valley Road South improvement area located within the reach of Proctor Valley Road (defined as the "easternmost reach") of the Rolling Hills Ranch project, which is a Covered Project with hardline designations in the City of Chula Vista's MSCP Subarea Plan (City of Chula Vista 2003). As described in Section 2.4.2, City of Chula Vista MSCP Subarea Plan, of this report, impacts associated with this reach of Proctor Valley Road were analyzed as part of the Rolling Hills Ranch project's CEQA analyses. An easement to accommodate the future alignment of Proctor Valley Road's easternmost reach was granted per the City of Chula Vista's Final Map 14756A. As part of the Letter Agreement between USFWS, CDFW, the City of Chula Vista, and Pacific Bay Homes dated July 19, 2001, no further mitigation for narrow endemic species or other Covered Species, including Otay tarplant, are required within this easement area (Appendix B). This Letter Agreement was incorporated into the City of Chula Vista's MSCP Subarea Plan (City of Chula Vista 2003). Thus, direct off-site impacts to Otay tarplant individuals (a narrow endemic species) are not considered significant and are not discussed further.

No state-listed wildlife species were observed in the Project Area or have high potential to occur in the Project Area. Two federally listed endangered or threatened wildlife species were detected within the Project Area: coastal California gnatcatcher and San Diego fairy shrimp. The Proposed Project would avoid impacts to known locations of San Diego fairy shrimp.

Coastal California gnatcatcher was observed occurring in the Project Area, including within the Development Footprint and Otay Ranch RMP Preserve. The Project Area supports coastal California gnatcatcher foraging and nesting opportunities that would be impacted by the Proposed Project. The Proposed Project would result in impacts to coastal California gnatcatcher

designated critical habitat within the Village 14 Development Footprint and off-site improvement areas. A total of 8.9 acres would be impacted from the Village 14 Development Footprint. Off-site improvement areas would impact 0.3 acres of coastal California gnatcatcher critical habitat, consisting of 0.2 acres of permanent impacts and 0.1 acres of temporary construction impacts, which would be restored upon Proposed Project completion.

Quino checkerspot butterfly was not detected during surveys, but potential habitat with host plant occurs within the Project Area. Although Quino checkerspot butterfly, federally listed as endangered, has not been observed within the Project Area during the 2 years (2015 and 2016) of focused surveys conducted for the Proposed Project, the species has been observed within and adjacent to the Project Area (see Section 5.3.1.2, Permanent Direct Impacts). The Proposed Project would result in impacts to 793.7 acres of potential habitat.. The Project Area includes 813.9 acres of USFWS-designated critical habitat for this species, of which 488.4 acres of potential habitat within that critical habitat would be impacted by the Proposed Project (see Figure 5-2, Impacts to Critical Habitat) and 274.6 acres is located in the Otay Ranch RMP Preserve. The remaining 36.9 acres is within Conserved Open Space. Approximately, 404.8 acres would be conserved within the Otay Ranch RMP Preserve with an additional 156.1 acres within Conserved Open Space and non-graded LDA and 350.1 acres of potential habitat to be added through off-site preservation.

Hermes copper butterfly is a candidate for federal listing and therefore included in this section, but it has not been observed with the Project Area based on field surveys in 2015 and 2017; however, the Proposed Project would result in impacts to 18 acres of suitable habitat. Hermes copper butterfly does not have designated critical habitat.

Impacts to San Diego Fairy Shrimp

Although the MSCP identifies San Diego fairy shrimp as a Covered Species, the County has taken the position that, based on a 2006 federal court decision, the plan's protections for this species are inadequate for purposes of providing FESA take coverage. Therefore, impacts to San Diego fairy shrimp or its habitat must be assessed and mitigated on a project-specific basis. The Proposed Project avoids all vernal pools/features that are known to be occupied by San Diego fairy shrimp. Consequently no significant impacts to San Diego fairy shrimp are expected. Nevertheless, the County is requiring a preventative mitigation measures for this species which, if a take permit is required, includes compliance with any permit conditions required by the USFWS for take of San Diego fairy shrimp (mitigation measure (**M)-BI-7**).

Impacts to Coastal California Gnatcatcher

Impact W-1: Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

Impacts to coastal California gnatcatcher from construction-related activities would include unintentional habitat and species loss, temporary impacts to suitable habitat, introduction of invasive species, and disruption of wildlife activities by construction activities adjacent to remaining suitable habitat; these impacts would be considered significant (discussed further in Section 5.3.1.1, Temporary Direct Impacts) (**Impact W-1**). Short-term direct impacts to suitable habitat for coastal California gnatcatcher would be mitigated through biological monitoring to ensure that no significant impacts occur to coastal California gnatcatcher outside of the Development Footprint and construction zones (**M-BI-1**), through the placement of temporary construction fencing (**M-BI-2**), preconstruction surveys for nesting birds and setbacks (**M-BI-6**), through restoration of temporarily impacted habitat (**M-BI-12**), and through noise-related measures (**M-BI-18**). The full text of the mitigation measures is presented in Section 6.4, Mitigation Measures and Design Considerations. With these measures, potentially significant impacts to coastal California gnatcatcher would be mitigated to less than significant.

Impact W-2: Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Loss of coastal California gnatcatcher habitat from Proposed Project development would be considered significant (**Impact W-2**; discussed further in Section 5.3.1.2). The Proposed Project would result in the loss of 398.4 acres of coastal sage scrub (including disturbed and baccharis-dominated varieties). Development would impact habitat surrounding one location that had an observed male located within Village 14 (Figure 3-2). In addition, improvements to Proctor Valley Road South within the City of Chula Vista would impact habitat surrounding the one male sited. Off-site roads within CDFW lands extending from the Proposed Project to Whispering Meadows would result in impacts to habitat surrounding two pairs (Figure 3-2). Long-term direct impacts would be mitigated by habitat conveyance and preservation of existing populations of sensitive species, suitable habitat, and special-status vegetation communities (M-BI-3); preservation of habitat and special-status vegetation communities through placing a biological open space easement over the areas of Conserved Open Space (M-BI-4); and permanent fencing and signage (M-BI-5). In addition, the RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation. The Proposed Project would convey approximately 264.2 acres of un-impacted coastal sage scrub to the Otay Ranch RMP Preserve; this acreage would include 7.4 acres of temporary construction impacts that would be restored, much of which is found in large patches within Village 14 and has been designated as very high value habitat. An additional 350.1 acres of conveyance is required per the Otay Ranch RMP, and although the

exact location is not known at this time, it is likely that the conveyance site would include suitable coastal California gnatcatcher habitat. The full text of the mitigation measures is presented in Section 6.4. With these mitigation measures, the Proposed Project's potentially significant direct impacts to coastal California gnatcatcher habitat would be mitigated to less than significant.

As shown in Table 4-3, the Proposed Project provides for the preservation of habitat surrounding the three coastal California gnatcatcher pairs within the Otay Ranch RMP Preserve in Village 14. The Proposed Project would preserve known locations of coastal California gnatcatchers and suitable habitat for the species through implementation of **M-BI-3** and **M-BI-4** as well as a location within non-graded LDA. Therefore, the Proposed Project would be in compliance with the Otay Ranch RMP requirements and impacts would be **less than significant**.

Impact W-5: Permanent Direct Impacts to Birds under the MBTA

If any active nests or the young of coastal California gnatcatcher are impacted through direct grading, these impacts would be significant based on FESA and the MBTA. As described under **M-BI-6**, vegetation clearing, grubbing, and grading would occur outside of the typical nesting period for most bird species and raptors (i.e., outside of February 1–August 31, and as early as January 1 for some raptor species) to limit impacts to nesting birds and raptors. If removal of habitat on the proposed area of disturbance must occur during the nesting season, a nesting bird survey must be conducted within 72 hours of any brush-clearing and earth-moving activities. A biological monitor would be required to be on site to flush wildlife from any occupied habitat areas immediately prior to brush-clearing and earth-moving activities, thus reducing the potential for direct impacts (**M-BI-1**). Therefore, impacts would be **less than significant**.

Impacts to Quino Checkerspot Butterfly

Impact W-1: Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

Impacts to suitable habitat for Quino checkerspot butterfly from construction-related activities would include unintentional habitat loss, introduction of invasive species, and potential disruption of wildlife activities by construction activities adjacent to remaining suitable habitat (discussed further in Section 5.3.1.1). Short-term direct impacts to Quino checkerspot butterfly habitat would be mitigated through biological monitoring to ensure that no impacts occur outside of the Development Footprint (**M-BI-1**), through the placement of temporary construction fencing (**M-BI-2**), and through restoration of temporarily impacted habitat (**M-BI-12**). The full text of mitigation measures is presented in Section 6.4. With these measures,

potentially significant impacts to Quino checkerspot butterfly habitat would be mitigated to **less than significant**.

Impact W-4: Permanent Direct Impacts to Quino Checkerspot Butterfly Suitable Habitat

As discussed in Section 5.3.1.2, the Proposed Project would have impacts to 793.7 acres of potential habitat for Quino checkerspot butterfly resulting in a **significant** impact (**Impact W-4**). This impact would be mitigated to less than significant through **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), **M-BI-5** (permanent fencing and signage), **M-BI-8** (Quino checkerspot butterfly take authorization), **M-BI-9** (Quino checkerspot butterfly habitat preservation), and **M-BI-10** (Quino checkerspot butterfly management/enhancement plan), are described in Section 6.4. In addition, the RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation.

The Quino checkerspot butterfly habitat within the Otay Ranch RMP Preserve and non-impacted areas (non-graded LDA and Conserved Open Space) contains a mosaic of open habitat communities, along with some chaparral areas, hilltop areas, cryptogrammic soils, and scattered host plant areas throughout. The habitat within the Otay Ranch RMP Preserve is also connected to other large blocks of preserved habitat associated with the Rancho Jamul Ecological Preserve, City of San Diego Cornerstone Lands, and any others that are considered suitable for Quino checkerspot butterfly. As shown in Figure 6-1, Preservation of Documented QCB Sightings in County Subarea Plan, the preserved lands that occur adjacent to Village 14 include portions of the Rancho Jamul Ecological Preserve, City of San Diego Cornerstone Lands, and a parcel to the east that was acquired by BLM as conserved lands. The preserved lands that occur adjacent to Planning Areas 16/19 include portions of the Rancho Jamul Ecological Reserve. There have been substantial numbers of Quino checkerspot butterflies documented to the south of the Development Footprint, to the east of the Otay Reservoir, and also farther south. The Proposed Project's design would maintain contiguous habitat with these locations with areas to the north on San Miguel Mountain; would provide widespread Quino checkerspot butterfly resource areas, including hilltops; would provide nectaring resources; and would provide host plant patches to help maintain metapopulation dynamics for the species. Per **M-BI-4**, the Proposed Project would place a biological open space easement over 72.4 acres of potential habitat. In addition, as a condition of the RMP, an open space easement will be placed over 83.7 acres of potential habitat. Per **M-BI-3** and **M-BI-9**, the Proposed Project would convey 404.8 acres of potential habitat to the Otay Ranch RMP Preserve.

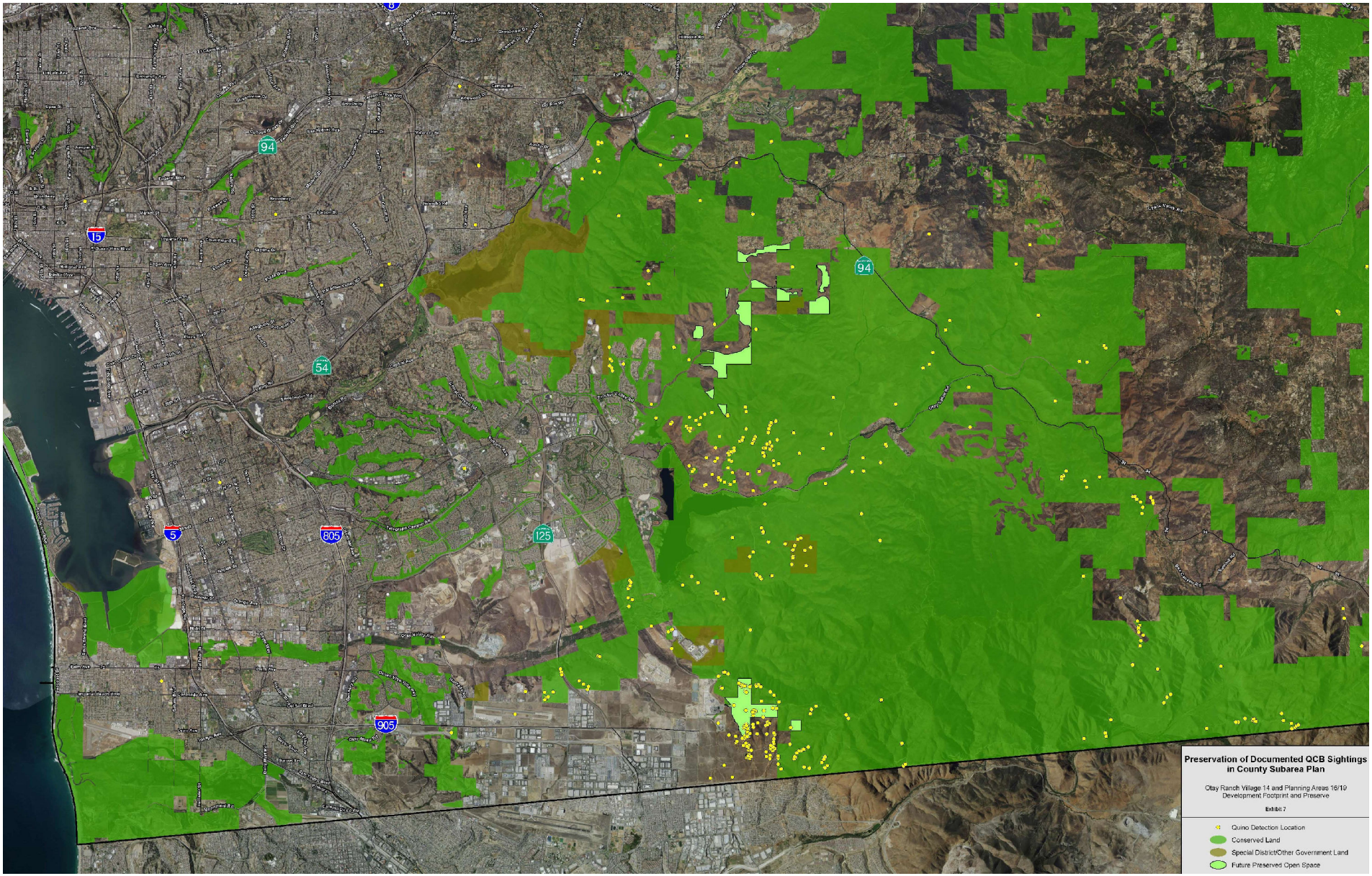
The preservation of potential habitat on site, coupled with the additional conservation conveyance (off site) of 350.1 acres required under the Otay Ranch RMP, through M-BI-3, M-

BI-4, and M-BI-9 would mitigate the potentially significant impacts to Quino checkerspot butterfly **less than significant**.

Impacts to Hermes Copper Butterfly

Impact W-1: Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

Impacts to suitable habitat for Hermes copper butterfly habitat from construction-related activities would include unintentional habitat loss, introduction of invasive species, and potential disruption of wildlife activities by construction activities adjacent to remaining suitable habitat, which would be considered significant (discussed further in Section 5.3.1.1). Short-term direct impacts to Hermes copper butterfly habitat would be mitigated through biological monitoring to ensure that no impacts occur outside of the Development Footprint (**M-BI-1**), and through the placement of temporary construction fencing (**M-BI-2)**. Temporary direct impacts to host plants is considered a permanent impact since that habitat would not be restored to pre-project conditions. The full text of mitigation measures is presented in Section 6.4. With these measures, potentially significant impacts to Hermes copper butterfly habitat would be mitigated to **less than significant**.



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SOURCE: Helix 2017

FIGURE 6-1

Preservation of Documented QCB Sightings in County Subarea Plan

Otay Ranch Village 14 and Planning Areas 16/19

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Impact W-6: Permanent Direct Impacts to Hermes Copper Butterfly Suitable Habitat

Based on the information gathered from the 2015 and 2017 habitat assessments, there is 26.8 acres of suitable Hermes copper butterfly habitat; however, the 2015 and 2017 focused surveys concluded that the Project Area does not contain occupied Hermes copper butterfly habitat. Consequently, absent future occupation of the Project Area by Hermes copper butterfly, implementation of the Proposed Project would not impact Hermes copper butterfly individuals or occupied Hermes copper butterfly habitat. However, the Development Footprint contains 18 acres of habitat that could potentially support Hermes copper butterfly. Although no Hermes copper butterflies were observed in the Project Area, there is the possibility that Hermes copper butterflies could use or occupy the Project Area in the future. Therefore, the Proposed Project would result in impacts to 18 acres of habitat that could support future Hermes copper butterfly populations (**Impact W-6**). Mitigation measures **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), and **M-BI-5** (permanent fencing and signage) described in Section 6.4 would mitigate for this impact through habitat preservation, including preservation of suitable habitat, and temporary construction fencing, where needed, to protect Otay Ranch RMP Preserve lands. Within the on-site conveyance acreage, 6.5 acres of suitable Hermes copper butterfly habitat would be preserved (**M-BI-3**), with an additional 1.5 acres within Conserved Open Space (**M-BI-4**) and 0.8 acres within non-graded LDA would be conserved with an open space easement as required for the RMP (see Appendix K). The Project Area does not support occupied Hermes copper butterfly habitat; therefore, the conservation of 8.8 acres of suitable habitat for Hermes copper butterfly would reduce the permanent impacts to 18 acres of suitable habitat to less than significant. Conveyance of this 8.8 acres of habitat within the Project Area would contribute to the overall preservation of habitat for this species within the Otay Ranch RMP Preserve. It should be noted that the 2015 and 2017 habitat assessments and focused surveys did not cover the entire Otay Ranch RMP Preserve. There may be additional host plants located in the Otay Ranch RMP Preserve areas not surveyed.

6.2.2 Project Effects Relevant to Guideline 4.1.B (County-Designated Sensitive Species)

6.2.2.1 Special-Status Plant Species (County List A and B Species)

Impact SP-1: Temporary Direct Impacts to Special-Status Plant Species

Short-term, construction-related, or temporary direct impacts to County List A and B plant species at the edge of the construction and Otay Ranch RMP Preserve interface would primarily result from construction activities. Clearing, trampling, or grading of special-status plants outside of designated construction zones could occur in the absence of avoidance and

mitigation measures. Potential temporary direct impacts to County List A and B plant species would be significant, absent mitigation (**Impact SP-1**). These short-term direct impacts would be mitigated to **less than significant** through implementation of M-BI-1 (biological monitoring) and M-BI-2 (temporary construction fencing). The full text of mitigation measures is presented in Section 6.4.

Impact SP-2: Permanent Direct Impacts to Special-Status Plant Species

The significance of potential permanent direct impacts to sensitive plant species is determined by applying the Otay RMP, MSCP Plan, MSCP County of San Diego Subarea Plan, City of San Diego MSCP Subarea Plan, and City of Chula Vista MSCP Subarea Plan described in Section 6.2.2.1 (see Table 6-1, Summary of Impacts to Sensitive Plants – List A and B). Direct impacts to sensitive plant species adequately covered by the MSCP Subarea Plans are mitigated through following the provisions set out in the Otay Ranch RMP, MSCP Plan, the MSCP County Subarea Plan, City of San Diego MSCP Subarea Plan, City of San Diego Land Development Code Biology Guidelines (City of San Diego 2012), and Chula Vista MSCP Subarea Plan.

The RMP outlines objectives and policies for the preservation of sensitive plant species within Otay Ranch (Policies 2.6 and 2.7 under Objective 2 – Preservation of Sensitive Resources). These policies, which apply throughout Otay Ranch, include preservation goals for select sensitive plant species. The preservation goals, portrayed as a percentage of populations preserved, are based on known occurrences of special-status plants at the time of RMP development. The goal of the RMP is to retain these population percentages within the Preserve as Otay Ranch is developed and as landowners convey property to the Preserve (City of Chula Vista and County of San Diego 1993b). Because the Proposed Project conforms to the original Otay Ranch GDP/SRP boundary, any populations recorded within the Otay Ranch RMP Preserve would contribute to the Ranch-wide Preserve and help to achieve the Otay Ranch RMP goals of conservation. Accordingly, the Proposed Project is consistent with the Otay Ranch RMP. Appendix K of this report provides the Otay Ranch RMP goals and MSCP policies for applicable species within the Proposed Project's Otay Ranch RMP Preserve.

By participating in the MSCP, following the guidelines of the Otay Ranch RMP, and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3**, the Proposed Project applicant would mitigate impacts to covered sensitive plant species to less than significant. In addition, the applicant would contribute to additional preservation of habitat and special-status vegetation communities through placing a biological open space easement over the areas of Conserved Open Space (**M-BI-4**) and non-graded LDA (RMP open space easement). Construction-related measures such as biological monitoring (**M-BI-1**) and temporary construction fencing (**M-BI-2**) would be implemented to reduce impacts outside of the

Development Footprint and construction zones from occurring. Impacts to San Diego marsh-elder (a non-Covered Species within the Cities of San Diego and Chula Vista) would be significant absent mitigation (Impact SP-2). Additional mitigation per the BMO analysis (see Appendix A, Biological Mitigation Ordinance Findings for PV1, PV2, and PV) is required for barrel cactus, variegated dudleya, San Diego marsh-elder, San Diego goldenstar, and Robinson's peppergrass. To mitigate for impacts to these sensitive species to less than significant, a Resource Salvage and Restoration Plan (**M-BI-11**) would be implemented prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable sensitive biological resources.

A summary of the Proposed Project's impacts to County List A and B sensitive plants observed within the Project Area is provided in Table 5-4. By following the guidelines of the Otay Ranch RMP, and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to covered sensitive plant species, as shown in Table 5-4, to **less than significant**. In addition, the RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. The significance determination for impacts to County List A and B non-Covered Species and narrow endemics is provided in Table 6-1.

The 25 individuals of Otay tarplant mapped within the proposed Proctor Valley Road South improvement area are located within the reach of Proctor Valley Road (defined as the "easternmost reach") of the Rolling Hills Ranch project, which is a Covered Project with hardlines in the City of Chula Vista's MSCP Subarea Plan. As described in Section 2.4.2, impacts associated with this reach of Proctor Valley Road were analyzed as part of the Rolling Hills Ranch project's CEQA analysis. An easement to accommodate the future alignment of Proctor Valley Road's easternmost reach was granted per the City of Chula Vista's Final Map 14756A. As part of the letter agreement between USFWS, CDFW, the City of Chula Vista, and Pacific Bay Homes dated July 19, 2001, no further mitigation for narrow endemic species or other Covered Species, including Otay tarplant, are required within this easement area (Appendix B). Thus, direct off-site impacts to Otay tarplant individuals (a narrow endemic species) would be **less than significant**.

Because San Diego barrel cactus is a Covered Species within the City of San Diego MSCP Subarea Plan, impacts to eight individuals within the City of San Diego Cornerstone Lands would be **less than significant**. The four individuals mapped within the proposed Proctor Valley Road South improvement area within City of Chula Vista lands are subject to restrictions described in Section 5.2.3 of the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003) and the Facilities Siting Criteria. Since this is a Covered Species, no mitigation is required.

Therefore, impacts to San Diego barrel cactus within both the City of San Diego and City of Chula Vista would be **less than significant**.

San Diego barrel cactus and San Diego goldenstar are covered species under the RMP and MSCP Plan, and therefore impacts to these species would typically not require mitigation. However, as a condition of the BMO analysis, mitigation will be provided for impacts to these species located within the portion of the Project Area subject to the analysis. The existing populations of these species within the Development Footprint would be translocated to the Otay Ranch RMP Preserve or Conserved Open Space and additional individuals would be planted to achieve a 2:1 and 3:1 mitigation to impact ratio (72:36 individuals for San Diego barrel cactus and 51:17 for San Diego goldenstar) (M-BI-11).

Table 6-1
Summary of Impacts to Sensitive Plants and Required Mitigation –
County List A and B, Non-Covered, and Narrow Endemics

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ CRPR/ MSCP Coverage County List	Basis for Impact Evaluation	Mitigation Requirements	Significance Determination
Bloomeria clevelandii San Diego goldenstar	None None 1B.1 Covered List A	Approximately 17 San Diego goldenstar individuals were recorded within the southern portion of the Village 14 Development Footprint subject to the BMO analysis.	Translocation of existing populations (17 individuals) and plantings of 34 additional individuals for a 3:1 mitigation-to-impact ratio.	Although San Diego goldenstar is a Covered Species under the Otay Ranch RMP and MSCP Plan, as a condition of the BMO analysis (see Appendix A of the BTR), mitigation would be provided for impacts to this species at a 3:1 ratio (M-BI-11). Therefore, impacts to this species would be less than significant with incorporation of mitigation.
Dudleya variegata Variegated dudleya	None None 1B.2 Covered, Narrow Endemic List A	Approximately 35 variegated dudleya individuals were recorded within the southern portion of the Village 14 Development Footprint.	Translocation of existing populations (35 individuals) and plantings of 105 additional individuals for a 3:1 mitigation-to-impact ratio.	By following the guidelines of the Otay Ranch RMP and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to covered sensitive plant species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. However, since this species is a narrow endemic, and impacts are subject to the BMO analysis, additional mitigation in the form of translocation and plantings would be provided (**M-BI-11**). Therefore, with mitigation, impacts to this species would not be significant.

Table 6-1
Summary of Impacts to Sensitive Plants and Required Mitigation –
County List A and B, Non-Covered, and Narrow Endemics

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ CRPR/ MSCP Coverage County List	Basis for Impact Evaluation	Mitigation Requirements	Significance Determination
San Diego barrel cactus (*Ferocactus viridescens*)	None None Covered 2B.1 List B	Approximately 36 San Diego barrel cactus individuals were recorded within the southern portion of the Village 14 Development Footprint.	Translocation existing populations (36 individuals) and plantings of 36 additional individuals for a 2:1 mitigation-to-impact ratio.	Although San Diego barrel cactus is also a Covered Species under the Otay Ranch RMP and MSCP Plan, as a condition of the BMO analysis (see Appendix A), mitigation would be provided for impacts to this species at a 2:1 ratio (M-BI-11). Therefore impacts to this species would be less than significant with incorporation of mitigation.
San Diego marsh-elder (*Iva hayesiana*)	None None 2B.2 Not Covered List B	Population estimates for this species within the Project Area is approximately 6,000. There would be impacts to approximately 3,904 individuals associated with on-site development and fuel modification. An additional 10 plants would be impacted by improvements to Proctor Valley Road in City of San Diego–owned land, 19 within the City of Chula Vista boundary, and four within CDFW-owned land.	Mitigation for impacts to 33 individuals located within off-site areas would be provided at a 1:1 ratio. As a condition of the BMO analysis, mitigation will be provided at a 1:1 ratio for 1,024 individuals (see Appendix A). Mitigation is not required for the remaining impacts to this species. Since this is a Covered Species in the Otay Ranch RMP, no additional mitigation is required for on-site impacts.	By following the guidelines of the Otay Ranch RMP, and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to non-covered sensitive plant species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. Therefore, impacts would be mitigated in accordance with the Otay Ranch RMP and would be less than significant. However, as a condition of the BMO analysis (see Appendix A of the BTR), mitigation would be provided for impacts to this species at a 1:1 ratio (M-BI-11). Since San Diego marsh-elder is not a Covered Species, impacts to 10 individuals

Table 6-1
Summary of Impacts to Sensitive Plants and Required Mitigation –
County List A and B, Non-Covered, and Narrow Endemics

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ CRPR/ MSCP Coverage County List	Basis for Impact Evaluation	Mitigation Requirements	Significance Determination
				within City of San Diego Cornerstone Lands would be significant absent mitigation. The 19 individuals mapped within the proposed Proctor Valley Road South improvement area within City of Chula Vista lands are subject to restrictions described in 5.2.3 of the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003) and the Facilities Siting Criteria. Since this is not a Covered Species, additional mitigation is required. Therefore, impacts to 19 San Diego marsh-elder individuals within the City of Chula Vista would be significant absent mitigation.
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	None None 4.3 Not Covered List A	Approximately 174 individuals of this species were recorded in the Project Area. Of these, approximately 168 individuals would be impacted within the Village 14 Development Footprint.	As a condition of the BMO analysis, mitigation will be provided for impacts to 106 individuals at a 2:1 ratio (see Appendix A).	Robinson's pepper-grass has a CRPR of 4 and is more common than previously thought (previously CRPR 1B.2; CNPS 2016). This species is of limited distribution but is not considered "rare" from a statewide perspective; therefore, proposed impacts are not expected to substantially affect long-term survival of the species (CNPS 2017). Although impacts to these species are not considered significant,

Table 6-1
Summary of Impacts to Sensitive Plants and Required Mitigation –
County List A and B, Non-Covered, and Narrow Endemics

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/ CRPR/ MSCP Coverage County List	Basis for Impact Evaluation	Mitigation Requirements	Significance Determination
				suitable habitat for these species would be preserved within the open space.

CRPR: California Rare Plant Rank
1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
4: Plants of Limited Distribution – A Watch List
Threat Rank
0.1 – Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2 – Moderately threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)
0.3 – Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)
MSCP: Multiple Species Conservation Program San Diego County Subarea Plan

6.2.2.2 Special-Status Wildlife Species (County Group 1 or State SSC)

Impact W-1: Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

Loss of special-status wildlife species (County Group 1 or state SSC animals), including individual amphibians, reptiles, and small mammals, and suitable habitat, from construction-related activities would result in short-term direct impacts that would be significant (**Impact W-1**). The Proposed Project would include biological monitoring to avoid unintentional impacts to species and habitat (**M-BI-1**), temporary construction fencing (**M-BI-2**), avoidance by preconstruction surveys for nesting birds and setbacks (**M-BI-6**), restoring temporary vegetation impacts (**M-BI-12**), and minimizing noise (**M-BI-18**). Therefore, temporary direct impacts to County Group 1 or state SSC species would be **less than significant**.

Impact W-2: Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Long-term or permanent direct impacts to special-status wildlife species were quantified by comparing the Development Footprint with suitable habitat for wildlife species. Implementation of the Proposed Project would result in the direct loss of habitat, including foraging habitat, for some of the County of San Diego Group 1, Group 2, and SSC species listed below and described in Sections 4.6.1 and 4.6.2 (**Impact W-2**).

MSCP Covered Species observed within the Project Area or with a high to moderate potential to occur are orangethroat whiptail (WL/County Group 2), Cooper's hawk (WL/County Group 1), burrowing owl (BCC/SSC/County Group 1), golden eagle (BCC/FP, WL/County Group 1), ferruginous hawk (BCC/WL/County Group 1), wandering skipper (County Group 1), Southern California rufous-crowned sparrow (WL/County Group 1), coastal California gnatcatcher (FT/SSC/County Group 1), northern harrier (SSC/County Group 1), Blainville's horned lizard (SSC/County Group 2), and American badger (SSC/County Group 2). Impacts to coastal California gnatcatcher are described under Guideline 4.1.A in Section 6.2.1, Project Effects Relevant to Guideline 4.1.A (Federally Listed and State-Listed Species). Impacts to golden eagle are described under Guideline 4.1.F in Section 6.2.6, Project Effects Relevant to Guideline 4.1.F (Raptor Foraging Habitat).

Several sensitive species that were either observed in the Project Area or have a high to moderate potential to occur in the Project Area are not MSCP Covered Species but are addressed by the Otay Ranch RMP. In addition, these species have a relatively low level of sensitivity, and none of these species are state or federally listed. These species are California legless lizard (SSC/County Group 2), San Diego banded gecko (SSC/County Group 1), Coronado skink (WL/County Group 2), coast patch-nosed snake (SSC/County Group 2), Bell's sage sparrow

(BCC/WL/County Group 1), western spadefoot (SSC/County Group 2), grasshopper sparrow (SSC/County Group 1), loggerhead shrike (BCC/SSC/County Group 1), pallid bat (SSC/County Group 2), Dulzura pocket mouse (SSC/County Group 2), northwestern San Diego pocket mouse (SSC/County Group 2), western mastiff bat (SSC/County Group 2), western red bat (SSC/County Group 2), California leaf-nosed bat (SSC/County Group 2), pocketed free-tailed bat (SSC/County Group 2), big free-tailed bat (SSC/County Group 2), alkali skipper (County Group 1), San Diego black-tailed jackrabbit (SSC/County Group 2), San Diego desert woodrat (SSC/County Group 2), San Diegan tiger whiptail (SSC/County Group 2), and red diamond rattlesnake (SSC/County Group 2).

Conservation provided through the Otay Ranch RMP and MSCP Plan, and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to Covered Species to reduce impacts to less than significant. Loss of special-status wildlife species (County Group 1 or state SSC animals), including individual amphibians, reptiles, and small mammals, from construction-related activities would be significant (**Impact W-2**) absent mitigation. Impacts to County-sensitive species not "covered" under the MSCP would be mitigated through the Proposed Project applicant's contribution to the MSCP and Otay Ranch RMP Preserve (**M-BI-3**), which would provide suitable habitat for these species in a configuration that preserves genetic exchange and species viability. Additional habitat would be conserved through **M-BI-4**. The RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation. Thus, direct impacts to sensitive wildlife species that are not MSCP Covered Species, with the exception of Quino checkerspot butterfly and Hermes copper butterfly, would be reduced to less than significant by virtue of the biological mitigation measures provided by the Otay Ranch RMP. Hermes copper butterfly and Quino checkerspot butterfly are discussed in Section 6.2.1.

Mitigation measures would be incorporated into the Proposed Project to reduce the potential for construction-related impacts to occur outside of the Development Footprint and construction zones through **M-BI-1** (biological monitoring). To protect the Otay Ranch RMP Preserve from unauthorized entry or disturbance, permanent signage and fencing would be placed, as reasonably necessary, around the perimeter of the Preserve through **M-BI-5** (permanent signage and fencing). To ensure that no burrowing owls have migrated into the Development Footprint, **M-BI-13** (burrowing owl preconstruction survey) would be implemented.

Impact W-5: Permanent Direct Impacts to Birds under the MBTA

As described in Section 5.3.1.2, if any active nests or the young of nesting special-status bird species are impacted through direct grading, these impacts would be significant, absent mitigation, based on the MBTA (Impact W-5). It is recommended that clearing of vegetation

occur outside of the typical nesting period for most bird species and raptors (i.e., outside the period of February 1–August 31 and as early as January 1 for some raptor species) to limit impacts to nesting birds and raptors. If clearing is required within the nesting period, a nesting bird survey would be conducted within 72 hours of Proposed Project implementation, as described in **M-BI-6** (preconstruction surveys for nesting birds). The Proposed Project could also result in direct impacts to birds during clearing and grubbing of vegetation in preparation for construction. A biological monitor would be required to be on site to flush wildlife from occupied habitat areas immediately prior to brush-clearing and earth-moving activities, thus reducing the potential for direct impacts (**M-BI-1**).With these mitigation measures, impacts to nesting birds and raptors and other sensitive status species would be less than significant. Therefore, impacts to birds under the MBTA would be **less than significant**.

6.2.3 Project Effects Relevant to Guideline 4.1.C (County Designated Special-Status Species)

6.2.3.1 Special-Status Plant Species (County List C and D Species)

There would be no direct impacts to County List C plant species resulting from implementation of the Proposed Project. Potential impacts to County List D species are summarized in Table 6-2. Although impacts to these species are not considered significant, suitable habitat for these species would be conserved within the Otay Ranch RMP Preserve (**M-BI-3**) and within Conserved Open Space (**M-BI-4**) and non-graded LDA (RMP open space easement).

Table 6-2
Summary of Impacts to Sensitive Plants – County List C and D

Species Common Name (Scientific Name)	Regulatory Status: Federal State CRPR MSCP Coverage County List	Basis for Impact Evaluation	Significance Determination
San Diego sagewort (*Artemisia palmeri*)	None None 4.2 Not covered List D	Of the 16 individuals recorded in the Project Area, four individuals would be impacted on site and the remaining 12 individuals would remain in the Planning Areas 16/19 Preserve (four) and non-graded LDA (eight).	San Diego sagewort is a CRPR 4.2 species, indicating it has a limited distribution and is moderately threatened in California. Given its low sensitivity ranking and that it is known from 23 quads in Southern California (CNPS 2016), impacts to fewer than 10 individuals is not expected to impact the local long-term survival of this species. By following the guidelines of the Otay Ranch RMP, and conveying the agreed-upon

Table 6-2
Summary of Impacts to Sensitive Plants – County List C and D

Species Common Name (Scientific Name)	Regulatory Status: Federal State CRPR MSCP Coverage County List	Basis for Impact Evaluation	Significance Determination
			acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to this species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals.
Western dichondria (*Dichondra occidentalis*)	None None 4.2 Not covered List D	All of the occurrences of western dichondria in the Project Area would be impacted on site (0.23 acres).	By following the guidelines of the Otay Ranch RMP and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to this species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. In addition, western dichondria is a CRPR 4.2 species, indicating it has a limited distribution and is moderately threatened in California. Given its low sensitivity ranking and that it is known from 33 quads in Southern California (CNPS 2016), impacts to 0.23 acres is not expected to impact the local long-term survival of this species.

Table 6-2
Summary of Impacts to Sensitive Plants – County List C and D

Species Common Name (Scientific Name)	Regulatory Status: Federal State CRPR MSCP Coverage County List	Basis for Impact Evaluation	Significance Determination
Palmer's grapplinghook (*Harpagonella palmeri*)	None None List 4.2 Not Covered List D	All of the 40 individuals recorded in the Project Area would be impacted on site in the southern portion of the Village 14 Development Footprint.	By following the guidelines of the Otay Ranch RMP and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to this species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. In addition, Palmer's grapplinghook is a CRPR 4.2 species, indicating it has a limited distribution and is moderately threatened in California. Given its low sensitivity ranking and that it is known from 40 quads in Southern California (CNPS 2016), impacts to 40 individuals is not expected to impact the local long-term survival of this species.
Graceful tarplant (*Holocarpha virgata* ssp. *elongata*)	None None List 4.2 Not Covered List D	All of the 20 individuals recorded in the Project Area would be impacted on site.	By following the guidelines of the Otay Ranch RMP and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to this species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. In addition, graceful tarplant is a CRPR 4.2 species, indicating it has a limited distribution and is moderately threatened in California. Given its low sensitivity ranking and that it is known from 25 quads in Southern California (CNPS 2016), impacts to only 20 individuals is not expected to impact the local long-term survival of this species.
Southwestern spiny rush (*Juncus acutus* ssp.	None None	Of the approximately 577 individuals recorded in the Project Area, 75	By following the guidelines of the Otay Ranch RMP and conveying the

Table 6-2
Summary of Impacts to Sensitive Plants – County List C and D

Species Common Name (Scientific Name)	Regulatory Status: Federal State CRPR MSCP Coverage County List	Basis for Impact Evaluation	Significance Determination
leopoldii)	List 4.2 Not Covered List D	individuals would be impacted on site, 10 would be impacted in off-site areas, 480 individuals would remain in the northwestern and southwestern portions of the Planning Areas 16/19 Preserve, and 12 individuals would remain in the Conserved Open Space.	agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-**4, the Proposed Project applicant would mitigate impacts to this species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. In addition, southwestern spiny rush is a CRPR 4.2 species, indicating it has a limited distribution and is moderately threatened in California. Given its low sensitivity ranking and that it is known from 27 quads in Southern California (CNPS 2016), impacts to 85 individuals is not expected to impact the local long-term survival of this species, especially considering the preservation of 492 individuals in the Planning Areas 16/19 Preserve and Conserved Open Space, as well as additional suitable habitat for this species in the Otay Ranch RMP Preserve system on site. Preservation of the 12 individuals within Planning Areas 16/19 would contribute to the overall preservation of this species. Therefore, impacts to southwestern spiny rush would be less than significant.
Golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*)	None None List 4.2 Not Covered List D	Of the approximately 12,608 individuals recorded in the Project Area, 6,350 individuals would be impacted on site, 10 individuals would remain in the Village 14 Preserve, and 6,248 individuals would remain in the non-graded LDA.	By following the guidelines of the Otay Ranch RMP and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to this species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. In addition, golden-rayed pentachaeta is a CRPR 4.2 species, indicating it has a limited

Table 6-2
Summary of Impacts to Sensitive Plants – County List C and D

Species Common Name (Scientific Name)	Regulatory Status: Federal State CRPR MSCP Coverage County List	Basis for Impact Evaluation	Significance Determination
			distribution and is moderately threatened in California. Given its low sensitivity ranking and that it is known throughout Southern California, including records within 12 different quads in San Diego County from as far north as Camp Pendleton to as far southeast as the Pine Valley area (CNPS 2017; SDNHM 2017), impacts to approximately 6,350 individuals is not expected to impact the local long-term survival of this species. Therefore, impacts to golden-rayed pentachaeta would be less than significant.
Ashy spike-moss (*Selaginella cinerascens*)	None None List 4.1 Not Covered List D	Of the approximately 6.63 acres of occupied area in the Project Area, 3.63 acres would be impacted on site and the remaining 2.95 acres would remain in the Village 14 Preserve (1.31 acres), non-graded LDA (1.22 acres), and Conserved Open Space (0.42 acres).	By following the guidelines of the Otay Ranch RMP and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to this species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. In addition, ashy spike-moss is a CRPR 4.1 species, indicating it has a limited distribution and is seriously threatened in California. Given its low sensitivity ranking and that it is known from 17 quads in Southern California (CNPS 2016), impacts to 3.63 occupied acres is not expected to impact the local long-term survival of this species, especially considering the preservation of 2.95 occupied acres, as well as additional suitable habitat for this species in the RMP Preserve system on site. Preservation of 1.31 acres of occupied areas within the Village 14 Otay Ranch RMP Preserve and Conserved Open Space (0.42 acres) would help to contribute to the

Table 6-2
Summary of Impacts to Sensitive Plants – County List C and D

Species Common Name (Scientific Name)	Regulatory Status: Federal State CRPR MSCP Coverage County List	Basis for Impact Evaluation	Significance Determination
			overall Otay Ranch RMP goals for this species. Therefore, impacts to ashy spike-moss would be less than significant.
San Diego County viguiera (*Viguiera laciniata*)	None None List 4.2 Not Covered List D	Of the approximately 18,599 individuals recorded in the Project Area, 6,543 individuals would be impacted by the Proposed Project.	By following the guidelines of the Otay Ranch RMP and conveying the agreed-upon acreage to the Otay Ranch RMP Preserve through **M-BI-3** and additional habitat through **M-BI-4**, the Proposed Project applicant would mitigate impacts to this species to less than significant. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. Preservation of 600 individuals within Village 14 and 7,225 individuals within the Planning Area 16 Otay Ranch RMP Preserve would contribute to the Ranch-wide goals for this species. Therefore, impacts to San Diego County viguiera would be less than significant.

CRPR: California Rare Plant Rank
4: Plants of Limited Distribution – A Watch List
Threat Rank
0.1 – Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2 – Moderately threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)

6.2.3.2 Special-Status Wildlife Species (County Group 2 Species)

Impact W-2: Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

As summarized in Section 4.6.2, the following County Group 2 special-status wildlife species were incidentally observed either directly or indirectly (i.e., scat, tracks), or have a high potential to occur, within the Project Area: rosy boa, California horned lark, western bluebird (MSCP Covered Species), barn owl, mule deer (MSCP Covered Species), cougar (MSCP Covered Species), Yuma myotis, orangethroat whiptail (MSCP Covered Species), and monarch butterfly. Figures 5-1 and 5-1a through 5-1cc show the Proposed Project's impacts in relation to the special-status wildlife observations mapped within the Project Area. Nineteen additional Group 2

species were observed or have a high potential to occur and are state SSCs: Blainville's horned lizard, American badger (MSCP Covered Species), California legless lizard, San Diego banded gecko, coast patch-nosed snake, Bell's sage sparrow, western spadefoot, pallid bat, Dulzura pocket mouse, northwestern San Diego pocket mouse, western mastiff bat, western red bat, California leaf-nosed bat, pocketed free-tailed bat, big free-tailed bat, San Diego black-tailed jackrabbit, San Diego desert woodrat, San Diegan tiger whiptail, and red-diamond rattlesnake.

Loss of Group 2 special-status wildlife species that are not state SSC animals from development of the Proposed Project is considered **less than significant** due to either their regional widespread presence or the Proposed Project's potential impacts' relative importance to the species. These species occur within a variety of habitats and through a wide geographic, topographic, and elevation ranges where there are an abundance of these species in the region. Regardless of the significance of impacts to Group 2 species, **M-BI-3** ensures that suitable habitat for these species would be conserved within the Otay Ranch RMP Preserve, and **M-BI-4** provides additional preservation of habitat within areas of Conserved Open Space and the RMP open space easement will provided additional habitat preservation within non-graded LDA.

Impact W-5: Permanent Direct Impacts to Birds under the MBTA

See Section 6.2.2.2, Special-Status Wildlife Species (County Group 1 or State SSC).

6.2.4 Project Effects Relevant to Guideline 4.1.D (Arroyo Toad)

As described in Section 3.3.6, Arroyo Toad Habitat Assessment, an arroyo toad habitat assessment was conducted for the Proposed Project. No adult mature arroyo toads or arroyo toad tadpoles were observed during arroyo toad habitat assessment surveys. Based on the habitat assessment of the potential suitable habitat within the Project Area, the lack of water for requisite time periods, isolation, and lack of species observations, this species has low potential to occur. Therefore, the Proposed Project would not have an impact on arroyo toad aestivation, foraging, or breeding habitat.

6.2.5 Project Effects Relevant to Guideline 4.1.E (Golden Eagle)

Impact W-3: Permanent Direct Impacts to Golden Eagle

Section 5.3.1.2 contains an analysis of impacts to suitable golden eagle foraging habitat within the Project Area. The key determinations when assessing the Proposed Project's impacts on golden eagle are whether the Proposed Project is consistent with the impact and conservation assumptions of the MSCP Plan, the MSCP County Subarea Plan, and Otay Ranch RMP, and complies with the protective conditions set forth in Table 3-5 of the MSCP Plan and in the

Section 10 permit. The impact analysis focuses on consistency with the MSCP Plan because golden eagle is a Covered Species under the MSCP Plan and MSCP County Subarea Plan. As shown in Table 5-6, MSCP-Defined Golden Eagle Suitable Foraging Habitat within the Project Area, 1,325.5 acres of golden eagle foraging habitat occurs in the Project Area, 779.8 acres of which would be impacted by the Proposed Project (**Impact W-3**).

As discussed previously, the designated areas of Otay Ranch RMP Preserve within the Project Area are exactly the same as what was identified in the Otay Ranch GDP/SRP and incorporated in the Otay Ranch RMP, the MSCP Plan, and MSCP County Subarea Plan and Implementing Agreement. Therefore, the Proposed Project is consistent with the Preserve assumptions of the MSCP Plan, the MSCP County Subarea Plan, and the Otay Ranch RMP. The Proposed Project also requires no MSCP boundary adjustment to the Otay Ranch RMP Preserve. In addition, the Proposed Project would convey 390.7 acres of on-site golden eagle foraging habitat within the Project Area and up to 350.1 acres of potential off-site golden eagle habitat to the Otay Ranch RMP Preserve, which is consistent with the Otay Ranch RMP conveyance obligation and MSCP Plan assumptions (**M-BI-3**). The applicant would place an open space easement over 73.0 acres of non-graded LDA per the requirements of the RMP. In addition, 72.4 acres of suitable habitat designated as Conserved Open Space as mitigation above the 1.188-acre Otay Ranch RMP conveyance requirement (**M-BI-4**).[15]

Given the information provided above, the Proposed Project is consistent with the habitat preservation requirements of MSCP Plan Table 3-5 and the County's Section 10 permit. Therefore, the Proposed Project's impacts on golden eagle foraging habitat would be **less than significant**.

In addition, surveys and analyses conducted by H.T. Harvey & Associates in 2016 and 2017 (Appendix C) indicated that the Proposed Project would not cause any lethal take of individual golden eagles or nests, would not disturb any active or occupied golden eagle nest, and would not place human disturbances within 4,000 feet of any active or occupied golden eagle nest. Accordingly, the Proposed Project is consistent with the requirements set forth in the County's Section 10 permit including those requirements set forth in Table 3-5 of the MSCP Plan and those addressing the establishment of disturbance avoidance areas. In addition, the Proposed Project would remain outside of the 3,000 foot buffer of historical nests as recommended in the Otay Ranch Raptor Management Study (Ogden 1992c). Therefore, the Proposed Project's impacts on golden eagle individuals and nests would be **less than significant**.

[15] This requirement is intended to cover all Proposed Project biological impacts, not just impacts on golden eagle.

6.2.6 Project Effects Relevant to Guideline 4.1.F (Raptor Foraging Habitat)

Impact W-2: Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

Foraging habitat for raptors is present throughout the Project Area. The Proposed Project would result in impacts to more than 5% of the raptor foraging habitat, as shown in Table 5-5, Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur. Therefore, impacts to raptor foraging habitat would be a significant impact **(Impact W-2)**. Impacts to raptor foraging habitat would be mitigated to less than significant through biological monitoring during construction (**M-BI-1**), habitat preservation of existing populations of special-status foraging raptors and suitable habitat for foraging raptors (**M-BI-3** and **M-BI-4**), and open space fencing and signage (**M-BI-5**). The RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation.

6.2.7 Project Effects Relevant to Guideline 4.1.G (Core Wildlife Area)

As discussed in 5.5.1.2, the Proposed Project meets the County's definition of a core wildlife area. The Project Area is located within the originally designated developable lands as identified in the Otay Ranch GDP/SRP, MSCP Plan, and Otay Ranch RMP, and would, therefore, retain the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992b) and the BRCAs identified in the MSCP Plan. Therefore, the Proposed Project is not anticipated to impact long-term wildlife movement between the Jamul Mountains and San Miguel Mountain, and impacts to wildlife movement/habitat linkages would be **less than significant**.

6.2.8 Project Effects Relevant to Guideline 4.1.H (Indirect Impacts)

6.2.8.1 Special-Status Plant Species

Impact SP-3: Temporary Indirect Impacts to Special-Status Plant Species

Most of the indirect impacts to vegetation communities described in Section 5.1.2 can also affect sensitive plants. Potential short-term or temporary indirect impacts to special-status plant species in the Project Area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides) (**Impact SP-3**). Special-status plant species at the edge of the Preserve/development interface could be impacted by potential temporary indirect impacts such as those previously listed (see descriptions in Section 5.1.2.1). Absent mitigation, these impacts would be significant.

Mitigation measures **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), and **M-BI-17** (prevention of chemical pollutants) described in Section 6.4 would mitigate these impacts to less than significant.

Impact SP-4: Permanent Indirect Impacts to Special-Status Plant Species

Permanent indirect impacts could result from the proximity of the Proposed Project to special-status plants after construction. Permanent indirect impacts that could affect special-status plant species include generation of fugitive dust, chemical pollutants, altered hydrology, non-native invasive species, increased human activity, and alteration of the natural fire regime (**Impact SP-4**). Each of these potential indirect impacts is discussed in Section 5.1.2.2. Special-status plant species at the edge of the Preserve/development interface could be impacted by permanent indirect impacts such as those previously listed. Absent mitigation, these impacts would be significant. Mitigation measures **M-BI-5** (permanent fencing and signage), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), and **M-BI-17** (prevention of chemical pollutants) described in Section 6.4 would mitigate these impacts to less than significant.

6.2.8.2 Special-Status Wildlife Species

Impact W-7: Temporary Indirect Impacts to Special-Status Wildlife Species

Short-term, construction-related, or temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources would primarily result from construction activities (**Impact W-7**). Absent mitigation, these impacts would be significant. Species potentially affected by such activities include coastal California gnatcatcher and nesting raptors that have the potential to use the eucalyptus trees along Proctor Valley Road North. Indirect impacts to sensitive bird species may occur if clearing of vegetation is conducted during the nesting season for coastal California gnatcatcher or other MBTA protected species (February 15 through August 31) and raptors (January 15 through July 31). Mitigation measures **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), M-BI-6 (nesting bird survey), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-17** (prevention of chemical pollutants), and **M-BI-18** (noise) described in Section 6.4 would mitigate these impacts to less than significant.

Impact W-8: Permanent Indirect Impacts to Special-Status Wildlife Species

Potential long-term or permanent indirect impacts to special-status wildlife species include generation of fugitive dust; off-road-vehicle use; non-native, invasive plant and animal species; habitat fragmentation; increased human activity; alteration of the natural fire regime; and

altered hydrology (**Impact W-8**). Absent mitigation, these impacts would be significant. Mitigation measures **M-BI-5** (permanent fencing and signage), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-18** (noise), **M-BI-19** (fire protection), and **M-BI-20** (lighting) described in Section 6.4 would mitigate these impacts to less than significant.

6.2.9 Project Effects Relevant to Guideline 4.1.I (Burrowing Owl)

As described in Section 3.3.4, a burrowing owl habitat assessment and subsequent focused surveys were conducted in 2014 by Dudek biologists within the Project Area. During these surveys, no burrowing owls or sign were observed. In 2015, burrowing owl sign consisting of white wash, feathers, and pellets was observed at one location along Proctor Valley Road during rare plant surveys (Figures 4-1 and 4-1a through 4-1cc). Suitable habitat within the Project Area includes 115 acres of non-native grassland and open areas of coastal sage scrub (including disturbed) that contain burrows, burrow surrogates, or fossorial mammal dens (Figure 3-3). However, based on the limited observation of burrowing owl sign and the lack of observations of burrowing owls during focused surveys in 2014, this species likely does not occur regularly within the Project Area. The closest CNDDB and USFWS records are approximately 3 and 5 miles southwest of the Project Area (CDFW 2016c; USFWS 2015a). Therefore, direct impacts to occupied burrowing owl habitat are not expected. However, to ensure that no burrowing owls have migrated into the Development Footprint, a preconstruction survey would be conducted (**M-BI-13**). If occupied burrows are detected, the County-approved biologist would prepare a passive relocation mitigation plan subject to review and approval by the Wildlife Agencies and the County, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities. Therefore, impacts to occupied burrowing owl habitat would be less than significant.

6.2.10 Project Effects Relevant to Guideline 4.1.J (Coastal Cactus Wren)

There are no cactus scrub patches within the Project Area to support nesting coastal cactus wren, and coastal cactus wren have not been observed during numerous wildlife surveys, including coastal California gnatcatcher surveys. There were coastal cactus wren occurrences detected in 1989 and 2000, with the closest occurrence approximately 4.5 to 5.0 miles west of the Project Area. Additional occurrences are located west and south of the Project Area (CDFW 2016c). Due to the lack of suitable habitat and observations within the Project Area, there would be no impacts to occupied coastal cactus wren habitat.

6.2.11 Project Effects Relevant to Guideline 4.1.K (Hermes Copper Butterfly)

In 2015 and 2017, Dudek biologists mapped Hermes copper butterfly habitat in accordance with the County of San Diego Guidelines for Hermes Copper (*Lycaena hermes*) (Attachment B of County of San Diego 2010a). Based on the 2015 habitat assessment conducted within the Village 14 Development Footprint and off-site improvement areas and a surrounding 500-foot buffer, 17 acres was determined to contain potential habitat and was surveyed in 2015 (Figure 3-5). Additional areas were surveyed in 2017 for suitable Hermes copper butterfly habitat within Planning Areas 16/19, as well as those areas outside of the previously defined Development Footprint, resulting in 18 acres mapped as potential habitat (Figure 3-5). Four surveys from May to July 2015 and in 2017 were conducted per the County guidelines. No Hermes copper butterflies were observed during the focused surveys; therefore, the habitat in the Project Area is considered suitable but unoccupied. Therefore, the Proposed Project would not meet the County's significance criteria, which describes impacts to "occupied Hermes copper habitat" (County of San Diego 2010a). However, impacts to suitable Hermes copper butterfly habitat are described under Section 6.2.1 and would be significant.

6.2.12 Project Effects Relevant to Guideline 4.1.L (Sensitive Bird Nesting)

The Project Area contains approximately 3.6 acres of habitat for tree-nesting raptors (eucalyptus woodland and oak riparian forest). Impacts to the nesting success of tree-nesting raptors (i.e., Cooper's hawk and red-tailed hawk) as a result of habitat removal associated with the Proposed Project are anticipated. Long-term direct impacts to nesting habitat for Cooper's hawk and red-shouldered hawk are summarized in Table 5-5, and impacts to general vegetation communities are described in Table 5-1. Impacts to the nesting success of tree- and ground-nesting raptors associated with the loss of suitable nesting habitat would be significant (**Impact W-2**). The loss of suitable nesting habitat would be mitigated to **less than significant** by habitat preservation and management of existing populations of sensitive species and suitable nesting habitat for wildlife species by providing large areas of diverse habitat types where birds can nest away from short-term construction activities (**M-BI-3** and **M-BI-4**). Temporary indirect impacts to nesting raptors (**Impact W-7**) are discussed in Sections 5.3.2.1 and 6.2.8.2. Potential impacts to burrowing owls, should they be found during preconstruction surveys, are discussed in Section 6.2.9.

Due to lack of suitable habitat, coastal cactus wren, least Bell's vireo, southwestern willow flycatcher, and light-footed clapper rail (*Rallus longirostris levipes*) are not expected to nest in the Development Footprint; therefore, **no impact** to the nesting success of those species would result. Impacts to coastal California gnatcatcher are addressed in Section 6.2.1

Impacts to Golden Eagle Nests within the Vicinity of the Project Area

As stated in Section 4.6.1, data shows no golden eagle nesting activity within the San Miguel Mountain breeding territory since the Harris Fire in 2007. This data were derived from surveys conducted by WRI (2010), USFWS (2014b), and H.T. Harvey & Associates (Appendix C). Although the historical known golden eagle nest locations and the artificial nest locations are located within 4,000 feet of the western-most portion of the Development Footprint, these features are no longer occupied. Although there are golden eagles in the vicinity, including mostly sub-adults, there is no evidence that there is any active nest within the San Miguel Mountain area within 4,000 feet of the Development Footprint. Therefore, there would be **no impacts** to existing golden eagle nests or breeding territories, which is consistent with the MSCP Plan, MSCP County Subarea Plan, and Otay Ranch RMP.

6.3 Cumulative Impact Analysis

Implementation of the Proposed Project would contribute to the cumulative loss of biological resources within Otay Ranch and the MSCP County Subarea Plan area. However, Proposed Project cumulative impacts to species covered under the MSCP, including golden eagle, which is discussed below, have already been deemed mitigated; therefore, no additional mitigation for such impacts is required. This is not the case for Proposed Project impacts to species not covered under the MSCP. These would require specific and additional mitigation to render the Proposed Project's contribution to the cumulative impact "less than cumulatively considerable." The only affected special-status species not already covered under the MSCP are Quino checkerspot butterfly and Hermes copper butterfly.

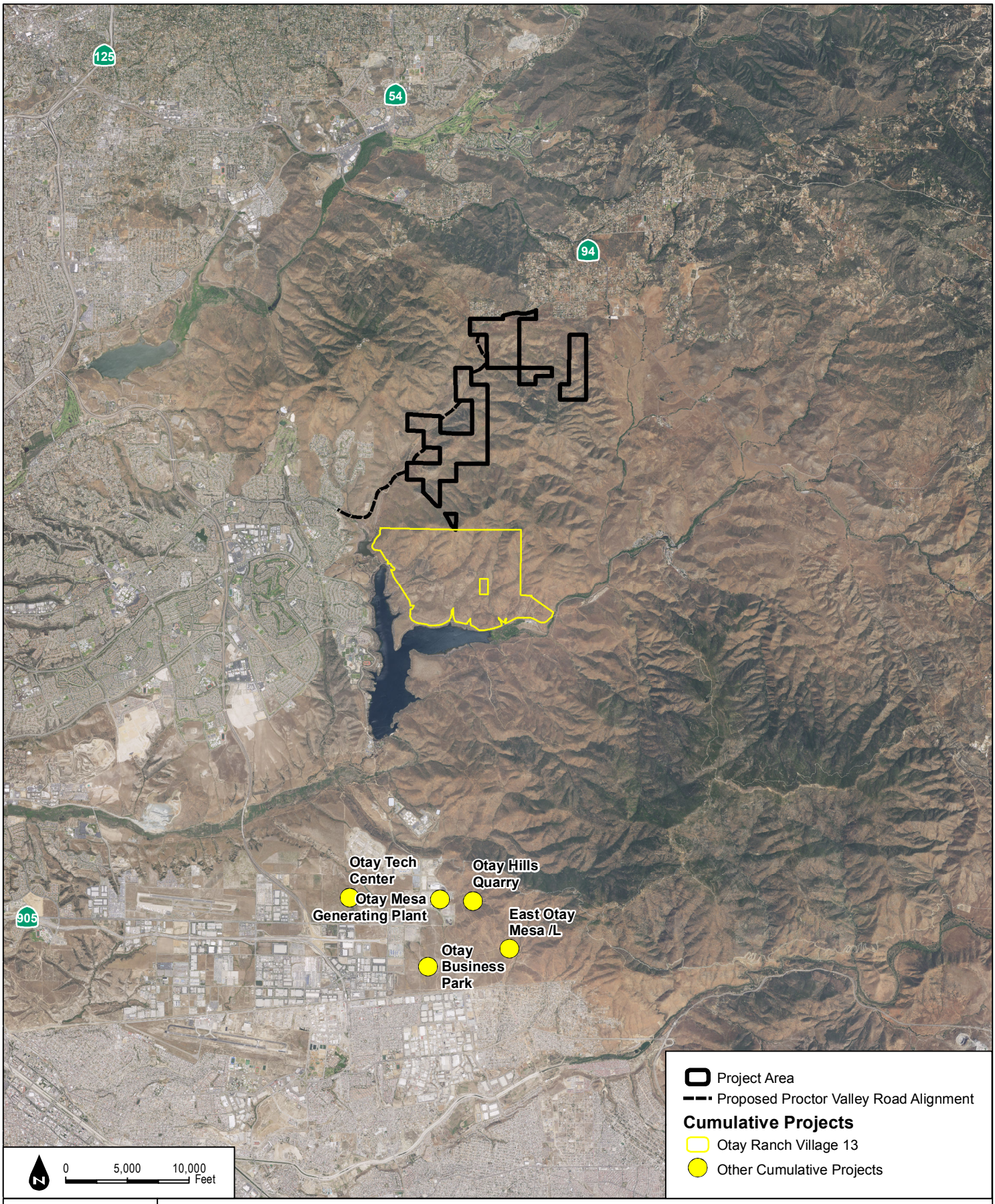
6.3.1 Cumulative Analysis for Quino Checkerspot Butterfly

Cumulative impacts for Quino checkerspot butterfly were evaluated by reviewing past, present, and future projects within the MSCP County Subarea Plan area that would have impacts to Quino checkerspot butterfly. Projects with proposed Quino checkerspot butterfly impacts include the Otay Tech Center, Otay Mesa Generating Project, Otay Business Park, East Otay Mesa Landfill, Otay Hills Quarry, and Otay Ranch Village 13 Master Planned Community Resort Village (Village 13) (Figure 6-2, Cumulative Analysis). See descriptions below.

- The Otay Tech Center is a 171-acre project northeast of Otay Mesa Road and State Route 905. This project was required to purchase 5.4 acres of native grassland and 48.6 acres of non-native grassland.
- The Otay Mesa Generating project is a 46-acre site on the east side of Altra Road north of Otay Mesa Road. Mitigation includes purchase of 35.9 acres of Quino checkerspot

butterfly habitat.

- The Otay Business Park is a 162-acre site southeast of the intersection of Alta Road and Airway Road. The mitigation required for Quino checkerspot butterfly was not identified but would likely be required.
- East Otay Mesa Landfill is a 450-acre site in the East Otay Mesa area approximately 2 miles east of the Siempre Viva Road exit from Interstate 905. Impacts are to 340 acres that were not identified as to habitat type. Mitigation required for Quino checkerspot butterfly was not identified but would likely be required.
- Otay Hills Quarry is a 210-acre site that includes a 112-acre impact area, of which 99.2 acres is composed of sensitive vegetation communities. Quino checkerspot butterfly is known to be present on the site. The mitigation required for impacts to Quino checkerspot butterfly was not identified but would likely be required.
- Village 13 includes development within the Proctor Valley Parcel of Otay Ranch. Quino checkerspot butterfly has been recorded within the Village 13 site, and development would impact 16% of observations and 33% of suitable habitat. A total of 483 acres of potential occupied habitat would be impacted, and a total of 962 acres of upland habitat considered to be occupied would be preserved. Mitigation measure BIO-9a of the Village 13 EIR requires an additional 4 acres of occupied habitat be provided through the restoration of suitable habitat within the Village 13 Preserve area. Further, mitigation measure BIO-9b of the Village 13 Draft EIR requires the preparation of a Quino Management/Enhancement Plan (County of San Diego 2015b).
- Otay 250 - East Otay Mesa Business Park Specific Plan project proposes to include a mix of residential, commercial and industrial uses to a portion of the Otay Subregional Plan to accommodate the project. Focused surveys for the site were negative for Quino checkerspot butterfly. The 2016 report concluded “although a medium density population of a Quino larval host plant was identified on-site, no larvae nor adults of the Quino Checkerspot were identified during the 2016 protocol survey. Therefore, any proposed future development of the Sunroad Centrum 250 property will have no effect on the endangered Quino Checkerspot Butterfly.”



SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 6-2

Cumulative Analysis

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19

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Construction of the Proposed Project has the potential to result in direct impacts to Quino checkerspot butterfly. However, the required mitigation measures listed in Section 6.4 would address the direct impacts of the Proposed Project to Quino checkerspot butterfly and would provide for Quino checkerspot butterfly habitat. Specifically, M-BI-1 through M-BI-5, and M-BI-8 through M-BI-10 would reduce impacts to Quino checkerspot butterfly through biological monitoring and construction fencing to minimize impacts to wildlife species and ensure that there are no impacts outside of the grading limits and habitat preservation. Also, take authorization with appropriate mitigation would be obtained through USFWS, or take authorization would be obtained through the MSCP County Subarea Quino Checkerspot Butterfly Addition. In addition, 560.9 acres of potential habitat for Quino checkerspot butterfly would be conveyed to the Otay Ranch RMP Preserve or not be impacted by the Proposed Project, and an additional 350.1 acres of conveyance is required for the Proposed Project's impacts and is, at least in part, expected to support suitable Quino checkerspot butterfly habitat. Finally, a long-term Quino Checkerspot Butterfly Management/Enhancement Plan would be prepared as part of the Proposed Project. Thus, the Proposed Project would reduce permanent impacts to Quino checkerspot butterfly to less than significant**.**

For a cumulative impact to Quino checkerspot butterfly to occur, the cumulative projects would have to result in the loss of Quino checkerspot butterfly such that the species becomes more limited in its distribution, population size, or available suitable habitat within the cumulative analysis area. The projects within the biological cumulative analysis study area have the potential to impact Quino checkerspot butterfly due to a similar climate and similar distribution of vegetation communities. This impact is potentially significant.

The Proposed Project in combination with other projects in the cumulative analysis study area could result in significant impacts to Quino checkerspot butterfly and its habitat. This impact, if not mitigated, would constitute a cumulatively considerable contribution to cumulative impacts on Quino checkerspot butterfly. The Proctor Valley region is not considered a core area for Quino checkerspot butterfly in the Recovery Plan adopted by USFWS (2003), but the region does contain documented historical sightings, and the region is included in the metapopulation structure for the species. Although limited to scattered patches throughout the valley, suitable habitat for the species is present within the Project Area.

From a metapopulation context, the Proctor Valley region provides suitable habitat for the species to expand into during very good reproductive and flight years. The Otay Ranch RMP Preserve within the Project Area allows for contiguity of suitable habitat and Quino checkerspot butterfly resource areas with adjacent Preserve lands (Figure 6-1). The majority of the Otay Ranch RMP Preserve and other non-graded areas are composed of open coastal sage scrub that is also contiguous with other sage scrub habitats off site. There have been substantial numbers of Quino

checkerspot butterflies documented south of the Village 14 Development Footprint, east of the Otay Reservoir System, and farther south toward the Otay Mesa area. The Proposed Project would maintain contiguous habitat with these locations with areas to the north on San Miguel Mountain; would provide widespread Quino checkerspot butterfly resource areas, including hilltops and nectaring resources; and would provide host plant patches to help maintain metapopulation dynamics for the species. Therefore, the Proposed Project's conveyance of suitable habitat (**M-BI-3**) and additional habitat conservation (**M-BI-4**), as described in Sections 2.4.3.1 and 6.4, would contribute to the regional preservation of Quino checkerspot butterfly potential habitat. The RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation. These measures would reduce the Proposed Project's contribution to cumulative impacts to Quino checkerspot butterfly to **less than cumulatively considerable**, as that term is defined and used in CEQA Guidelines Section 15130.

6.3.2 Cumulative Analysis for Hermes Copper Butterfly

Cumulative impacts for Hermes copper butterfly were evaluated by reviewing past, present, and future projects within the MSCP County Subarea Plan area that included impacts to Hermes copper butterfly. The Otay Tech Center, Otay Mesa Generating Project, Otay Business Park, East Otay Mesa Landfill, Otay Hills Quarry, and Village 13 projects occur in the vicinity of the Proposed Project and were reviewed for impacts to Hermes copper butterfly (Figure 6-2). None of these projects would have impacts to Hermes copper butterfly habitat/host plants or individuals.

Construction of the Proposed Project would result in direct impacts to Hermes copper butterfly habitat. However, the required mitigation measures listed in Section 6.4 would address the direct impacts of the Proposed Project to Hermes copper butterfly habitat and provide measures to reduce the long-term effects from the loss of portions of the habitat. Specifically, M-BI-1 through M-BI-5 would reduce impacts to Hermes copper butterfly through biological monitoring and construction fencing to minimize impacts to wildlife species and ensure there are no impacts outside of the grading limits. They would also provide for the conservation and long-term protection of suitable habitat. Thus, through implementation of these mitigation measures, the Proposed Project would reduce the permanent impacts to Hermes copper butterfly to less than significant.

For a cumulative impact to Hermes copper butterfly to occur, the cumulative projects would have to result in the loss of Hermes copper butterfly habitat such that the available suitable habitat becomes more limited within the cumulative analysis area. The projects reviewed would not have impacts to Hermes copper butterfly habitat/host plants or individuals.

The Proposed Project in combination with other future projects in the cumulative analysis study area could result in significant impacts to Hermes copper butterfly habitat. This impact, if not mitigated, would constitute a cumulatively considerable contribution to cumulative effects on Hermes copper butterfly.

The Otay Ranch RMP Preserve within the Project Area allows for contiguity of suitable habitat and Hermes copper butterfly resource areas with adjacent Preserve lands (Figure 2-1). The Otay Ranch RMP Preserve contains host plants and suitable habitat for the species that is contiguous with suitable habitat, and likely host plants, off site. Therefore, the Proposed Project's conveyance of suitable habitat and host plants, as described in Section 6.4, would contribute to the regional preservation of Hermes copper butterfly habitat. These measures would reduce the Proposed Project's contribution to cumulative impacts on Hermes copper butterfly to **less than cumulatively considerable**, as that term is defined and used in CEQA Guidelines Section 15130.

6.3.3 Cumulative Analysis for Golden Eagle

As discussed previously, the Proposed Project is consistent with the MSCP Plan, the MSCP County Subarea Plan, and the Otay Ranch RMP as they relate to golden eagle. The Proposed Project also complies with conditions relating to golden eagle as set forth in the County's Section 10 permit issued by USFWS in 1997. Accordingly, the Proposed Project's contribution to cumulative impacts on golden eagle would be **less than cumulatively considerable**. As additional support for this conclusion, the Proposed Project was also assessed in terms of the MSCP's overall goal of preserving 53% (approximately 139,000 acres) of potential foraging/nesting golden eagle habitat within the MSCP Plan area. The details of that analysis, including all calculations, are provided in Appendix C.

MSCP Defined Golden Eagle Suitable Habitat – Current Preserve

To determine if the Proposed Project would result in cumulative impacts to golden eagle foraging habitat, Dudek calculated the amount of golden eagle habitat currently conserved within the MSCP Preserve (and, by virtue, the Otay Ranch RMP Preserve) and the amount of golden eagle foraging habitat anticipated to be contributed to the MSCP Preserve by future development within the MSCP Plan area. These acreages were used to determine if contributions to the MSCP Preserve are on track to meet, or exceed, the 53% conservation target (approximately 139,000 acres). As discussed in Section 3.3.5, Golden Eagle Foraging and Nesting Habitat Assessment, to determine the amount of golden eagle foraging/nesting habitat currently conserved as MSCP Preserve, the MSCP Plan vegetation mapping was overlaid with current HabiTrak data. HabitTrak is a toolset designed to help track habitat lost and conserved over time due to public and private development projects. Appendix C provides the acreages of golden eagle habitat

gained and lost within the entire MSCP Plan area, as calculated in HabiTrak, both inside and outside of the MHPA. The MHPA is the area within the MSCP Plan area from which the Preserve would be assembled and managed for its biological resources. Since adoption of the MSCP Plan (1998), additional lands have been conserved that are located outside the MHPA as it is mapped in the MSCP Plan. As of October 2015, 110,767 acres of golden eagle habitat has been conserved within the MSCP Plan area (see Appendix C).

MSCP Defined Golden Eagle Suitable Habitat – Future Preserve

Table 3-5 in the MSCP Plan states that 53% of potential foraging/nesting habitat (coastal sage scrub, chaparral, grassland, and oak woodland) (approximately 139,000 acres) would be conserved. Currently, 90,856 acres of suitable golden eagle habitat are conserved as MSCP Preserve (Appendix C). To meet the 53% goal, an additional 49,274 acres must be conserved as MSCP Preserve in the future.

The MSCP Preserve is still in the process of being assembled. Based on the MSCP Preserve boundaries, it is estimated that an additional 64,878 acres of suitable golden eagle habitat is already slated for inclusion in the MSCP Preserve. Of those 64,878 acres, 35,356 acres is within the MSCP County Subarea Plan area.

Several of the "Take Authorized Areas" (identified for future development in the MSCP Plan and MSCP County Subarea Plan) located within the MSCP County Subarea Plan area have been converted entirely to MSCP Preserve. These areas include Hidden Valley Estates, Las Montanas, Otay Village 15, and Daley Ranch. Portions of these areas that provide suitable golden eagle foraging habitat are included in the suitable habitat conserved to date (90,586 acres).

An additional 64,878 acres of golden eagle habitat is anticipated to be added to the MSCP Preserve. With this estimated additional foraging/nesting habitat, the total golden eagle habitat within the MSCP Plan area is estimated to be 155,734 acres, which would represent approximately 59% of potential golden eagle foraging/nesting habitat within the MSCP Plan area.

Taking into consideration the MSCP Preserve gain, as of October 2015, outside the MHPA of 19,941 acres of habitat, the MSCP Preserve with suitable golden eagle habitat is projected to total 175,675 total acres (66% of total suitable habitat). The MSCP Plan is, therefore, projected to exceed the 53% conservation target by approximately 15,600 acres of golden eagle habitat within the original MHPA, and approximately 35,550 acres of golden eagle habitat in total (both within and outside MHPA) (see Appendix C).

With respect to the County of San Diego's MSCP Subarea Plan (1997), the Biological Opinion outlined a conservation level of 54% of potential foraging habitat (i.e., 91,397 of 170,416 acres,

as identified in the MSCP County Subarea Plan). Thus, to meet the County of San Diego's MSCP Subarea Plan's objective, approximately 91,397 acres of golden eagle foraging habitat must ultimately be brought into the Preserve system. The County of San Diego's MSCP Subarea Plan's Preserve, as of October 2015, is 65,615 acres. When added to the remaining MSCP County Subarea Plan Preserve within the original MHPA (35,356 acres), and MSCP Preserve gains outside the MHPA (18,304 acres), the County of San Diego's MSCP Subarea Plan is projected to exceed the 54% goal of 91,107 acres (see Appendix C).

The County of San Diego's MSCP Subarea Plan has contributed more suitable golden eagle habitat than any other subarea to the MSCP Preserve, as evidenced by contributing 65,615 acres of the 90,856 acres preserved to date within the MSCP Plan area. In addition, the County of San Diego's MSCP Subarea Plan is likely to contribute most of the habitat that may be preserved over and above the 53% (approximately 139,000 acres) MSCP conservation target.

The Proposed Project would contribute an additional 390.7 acres of on-site suitable foraging habitat to the Otay Ranch RMP Preserve, and by virtue the MSCP Preserve, as well as an additional 350.1 acres of potential habitat off site within Otay Ranch, per the Otay Ranch GDP/SRP (City of Chula Vista and County of San Diego 1993a); therefore, the Proposed Project's net loss of 780.4 acres of suitable foraging habitat would not result in cumulative impacts to foraging habitat for golden eagle. An additional 72.4 acres of Conserved Open Space and 73.0 acres of non-graded LDA would have an open space easement placed over them. The Proposed Project also would not impede the MSCP conservation goal of conserving 53% (approximately 139,000 acres) of the suitable golden eagle foraging/nesting habitat. Thus, the Proposed Project would make a **less than cumulatively considerable** contribution to cumulative impacts to golden eagle or golden eagle foraging/nesting habitat.

Further, if a participating Otay Ranch project, such as that proposed for Village 14 and Planning Areas 16/19, is consistent with the Otay Ranch RMP, the MSCP Plan, and the MSCP County Subarea Plan, its contribution to cumulative biological impacts would be considered less than cumulatively considerable and, therefore, **less than significant**. The Proposed Project is consistent with the Otay Ranch RMP, the MSCP Plan, and the MSCP County Subarea Plan.

6.4 Mitigation Measures and Design Considerations

M-BI-1 **Biological Monitoring.** To prevent disturbance to areas outside the limits of grading, all grading shall be monitored by a biologist. Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits for any areas adjacent to the Otay Ranch Resource Management Plan (RMP) Preserve and the off-site areas, the Proposed Project applicant or its

designee shall provide written confirmation that a biological monitor approved by the County of San Diego has been retained and shall be present during clearing, grubbing, and/or grading activities within sensitive resources.

Biological monitoring shall include the following:

a. Attend the preconstruction meeting with the contractor and other key construction personnel prior to clearing, grubbing, or grading to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).

b. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas prior to clearing, grubbing, or grading. Perform weekly inspection of fencing and erosion control measures (daily during rain events) near proposed preservation areas.

c. Discuss procedures/training for minimizing harm to or harassment of wildlife encountered during construction with the contractor and other key construction personnel prior to clearing, grubbing, or grading.

d. Supervise and monitor vegetation clearing, grubbing, and grading to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved.

e. Flush species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities.

f. Verify that the construction site is implementing the stormwater pollution prevention plan (SWPPP) best management practices. The SWPPP is described in further detail in M-BI-14.

g. Periodically monitor the construction site in accordance with the Proposed Project's fugitive dust control plan. Periodically monitor the construction site to see that dust is minimized according to the fugitive dust control plan and that manufactured slopes are revegetated as soon as possible.

h. Periodically monitor the construction site to verify that artificial security light fixtures are directed away from open space and are shielded.

i. Oversee the construction site so that cover and/or escape routes for wildlife from excavated areas are provided on a daily basis. All steep trenches, holes, and excavations during construction shall be covered at

night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighed down by sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and prior to sealing the exposed area) by a qualified biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.

M-BI-2 **Temporary Construction Fencing.** Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, the Proposed Project applicant or its designee shall install prominently colored fencing and signage wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on grading plans for areas adjacent to the Preserve and for all off-site facilities constructed within the Preserve. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of Planning & Development Services (or his/her designee) and the Director of Parks and Recreation that work was conducted as authorized under the approved land development permit and associated plans.

Based on the standard mitigation ratio of 1.188, the required conveyance for on-site impacts would be 776.8 acres (644.8 acres × 1.188 = 776.8 acres). Impacts to sensitive habitat within CDFW lands impacted by construction of the two connector roads would require 9.1 acres of mitigation. This impact would be mitigated by conveying an additional 10.8 acres to the Otay Ranch RMP Preserve (9.1 acres x 1.188 = 10.8 acres) (**M-BI-3**). This 10.8 acres is included in the 776.8 acre calculation. The BMO would require an additional 24.6 acres of mitigation. Impacts to City of San Diego Cornerstone Lands would require an additional 11.3 acres of mitigation. Therefore, the total required mitigation for the Proposed Project is 812.7 acres. The overall conveyance acreage will be satisfied through onsite and off-site conveyance. Additional mitigation as a result of the BMO analysis may be satisfied through onsite or offsite conveyance (**M-BI-3**) or Conserved Open Space (**M-BI-4**). Impacts to San Diego Cornerstone lands will be mitigated through City of San Diego mitigation requirements and may include the use of Conserved Open Space (**M-BI-4**). While not proposed as a specific mitigation measure, the

RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation.

M-BI-3 **Habitat Conveyance and Preservation.** Prior to the approval of the first Final Map for the Proposed Project, the Proposed Project applicant or its designee shall coordinate with the County of San Diego (County) to establish and annex the Project Area into a County-administered Community Facilities District to pay for the ongoing management and maintenance of the Otay Ranch Resource Management Plan (RMP) Preserve. Prior to the recordation of the first Final Map within each Tentative Map, the Proposed Project applicant shall convey land within the Otay Ranch RMP Preserve to the Otay Ranch Preserve Owner/Manager or its designee at 1.188 acres for each "developable acre" impacted, as defined by the Otay Ranch RMP. At the standard 1.188 mitigation ratio, the required conveyance for this Proposed Project is 776.8 acres (653.95 acres × 1.188 = 776.8 acres). Common uses within the Project Area include 15.2 acres of public parks, the 9.6-acre elementary school site, 12.8 acres of major circulation, 3.6 acres for the on-site water tank and access road, and the 2.3-acre public safety site. In addition, Planning Area 16 contains 127.1 acres of LDA that is not subject to conveyance. Areas of Conserved Open Space are also excluded from the conveyance total (72.4 acres). Total Proposed Project impacts, less these common areas, Conserved Open Space, and LDA, and including roads within Planning Areas 16/19, is 653.9 acres. The Proposed Project shall convey 426.7 acres within Village 14 and Planning Areas 16/19. The remaining 350.1 acres of conveyance needs shall be met through off-site acquisitions within the Otay Ranch RMP, which will then be conveyed to the Otay Ranch RMP Preserve.

M-BI-4 **Biological Open Space Easement.** Areas of Conserved Open Space shall be preserved on site and shall either be added to the Otay Ranch Resource Management Plan (RMP) Preserve (see M-BI-3), given to the City of San Diego to mitigate for impacts to Cornerstone Lands, or managed under a County of San Diego (County) approved RMP through the County biological open space easement to satisfy the additional mitigation requirements as a result of the BMO analysis. This easement shall be for the protection of biological resources, and all of the following shall be prohibited on any portion of the land subject to said easement: grading; excavating; placing soil, sand, rock, gravel, or other material; clearing vegetation; constructing, erecting, or placing any building or structure; vehicular activities; dumping trash; or using the area for any purpose other than as open space. Granting this biological open space shall authorize the County and its agents to

periodically access the land to perform management and monitoring activities for species and habitat conservation. The only exceptions to this prohibition are the following:

1. Selective clearing of vegetation by hand to the extent required by written order of the fire authorities for the express purpose of reducing an identified fire hazard. Although clearing for fire management is not anticipated with the creation of this easement, such clearing may be deemed necessary in the future for the safety of lives and property. All fire clearing shall be pursuant to the applicable fire code of the fire authority having jurisdiction, and the Memorandum of Understanding dated February 26, 1997, between the wildlife agencies and the fire districts and any subsequent amendments thereto.
2. Activities conducted pursuant to a revegetation or habitat management plan approved by the Director of Department of Planning & Development Services.
3. Vegetation removal or application of chemicals for vector control purposes where expressly required by written order of the County of San Diego Department of Environmental Health.
4. Construction, use, and maintenance of multi-use, non-motorized trails.

The applicant shall show the on-site biological open space easement on the Final Map and biological open space easement exhibit with the appropriate granting language on the title sheet concurrent with Final Map Review, then submit them for preparation and recordation with the Department of General Services, and pay all applicable fees associated with preparation of the documents.

If areas of Conserved Open Space are managed through the County to provide for the long-term management of the proposed Conserved Open Space, an RMP shall be prepared and implemented prior to the approval of the Final Map. The RMP shall be submitted to the County and agencies for approval as required.

The final RMP cannot be approved until the following has been completed to the satisfaction of the Director of Department of Planning & Development Services, and, in cases where the Director of the Department of Parks and Recreation has agreed to be the owner/manager, to the satisfaction of the Director of the Department of Parks and Recreation:

1. The RMP shall be prepared and approved pursuant to the most current version of the County of San Diego Biological Report Format and Content Requirements.

2. The biological open space easements shall be dedicated to ensure that the land is protected in perpetuity.
3. A resource manager shall be selected and evidence provided by the applicant as to the acceptance of this responsibility by the proposed resource manager.
4. The RMP funding costs, including a PAR (Property Assessment Record) or other equally adequate forecast, shall be identified. The funding mechanism (endowment or other equally adequate mechanism) to fund annual costs for the RMP and the holder of the security shall be identified and approved by the County.
5. A contract between the applicant and County shall be executed for the implementation of the RMP.
6. Annual reports shall include an accounting of all required tasks and details of tasks addressed during the reporting period, and an accounting of all expenditures and demonstration that the funding source remains adequate.

M-BI-5 **Permanent Fencing and Signage.** To protect the Otay Ranch Resource Management Plan Preserve and areas of Conserved Open Space from entry upon occupancy of any housing units, an open space fence or wall shall be installed along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the Proctor Valley Village 14 and Preserve Edge Plan and Proposed Fencing, Preserve Signage, and Fuel Modification Zones. The barrier shall be a minimum construction of vertical metal fencing, but may be other suitable construction material, as approved by Department of Planning & Development Services and the Director of Parks and Recreation. To protect the Preserve from entry, informational signs shall be installed, where appropriate, along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the Proctor Valley Village 14 and Preserve Edge Plan. The signs must be corrosion resistant, a minimum of 6 inches by 9 inches, on posts not less than 3 feet in height from the ground surface, and state, "Sensitive Environmental Resources Protected by Easement. Entry without express written permission from the County of San Diego is prohibited."

M-BI-6 **Nesting Bird Survey**. To avoid any direct impacts to raptors and/or any migratory birds protected under the Migratory Bird Treaty Act, removal of habitat that supports active nests on the proposed area of disturbance shall occur outside of the nesting season for these species (January 15 through August 15, annually).

If, however, removal of habitat on the proposed area of disturbance must occur during the nesting season, the Proposed Project applicant or its designee shall retain a biologist approved by the County of San Diego (County) to conduct a preconstruction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The preconstruction survey must be conducted within 72 hours prior to the start of construction, and the results must be submitted to the Director of Planning & Development Services for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the County, shall be prepared and include proposed measures to be implemented to ensure that disturbance of nesting activities are avoided. The report or mitigation plan shall be submitted to the County for review and approval and implemented to the satisfaction of the Director of Planning & Development Services (or her/his designee). The County's mitigation monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

M-BI-7 **San Diego Fairy Shrimp Take Authorization.** If take authorization is required for impacts to San Diego fairy shrimp suitable habitat the Proposed Project shall demonstrate, to the satisfaction of the Director of Planning & Development Services (or his/her designee) and prior to the issuance of the first grading permit that impacts suitable San Diego fairy shrimp habitat, that it has secured from any necessary take authorization from the USFWS. Take authorization may be obtained through the Section 7 Consultation or Section 10 incidental take permit requirements. Preconstruction surveys for San Diego fairy shrimp will be a condition of this Project if required by the USFWS pursuant to the FESA. If required by the USFWS, the surveys shall be performed prior to the commencement of any clearing, grubbing, or grading activities. The preconstruction surveys will follow protocols set by the USFWS unless the USFWS authorizes a deviation from those protocols, as permitted under Section IX, subdivision a, of the "Survey Guidelines for the Listed Large Branchiopods," issued by USFWS on May 21, 2015. Note this measure will not apply to off-site areas under the jurisdiction of the City of San Diego or the City of Chula Vista. Take for San Diego fairy shrimp is provided by the City of San Diego's Vernal Pool Habitat Conservation Plan and the City of Chula Vista's Subarea Plan.

M-BI-8 **Quino Checkerspot Butterfly Take Authorization.** If take authorization is required for impacts to Quino checkerspot butterfly, the Proposed Project shall

demonstrate, to the satisfaction of the Director of Planning & Development Services (or his/her designee) and prior to the issuance of the first grading permit that impacts suitable Quino checkerspot butterfly habitat, that it has secured from any necessary take authorization. Take authorization may be obtained through the Section 7 Consultation or Section 10 incidental take permit requirements. The Applicant will comply with any and all conditions, including preconstruction surveys, that the USFWS may require for take of Quino checkerspot butterfly pursuant to the FESA. Preconstruction survey will be conducted in accordance with USFWS protocols unless the USFWS authorizes a deviation from those protocols.

Take may also be obtained through the County of San Diego Multiple Species Conservation Program Subarea Plan Quino Checkerspot Butterfly Addition, if/when approved. If the Quino checkerspot butterfly is included as an addition to the South County MSCP, and the Applicant seeks take under the Quino Addition, the Applicant will comply with any and all conditions for Quino checkerspot butterfly.

M-BI-9 **Quino Checkerspot Butterfly Habitat Preservation.** The Proposed Project shall convey 404.8 acres of potential habitat for Quino checkerspot butterfly. In addition, per M-BI-4, a biological open space easement shall be placed over 72.4 acres of potential habitat within Conserved Open Space. As a condition of the RMP, and open space easement will be placed over 83.7 acres of potential habitat within non-graded LDA. Therefore, 560.9 acres of potential habitat for Quino checkerspot butterfly shall be conveyed to the Otay Ranch Resource Management Plan Preserve or not be impacted by the Proposed Project. An additional 350.1 acres of conveyance is required for the Proposed Project's impacts and shall be selected to include suitable Quino checkerspot butterfly habitat. For the off-site mitigation parcel(s) to be acceptable as mitigation for sensitive plant and wildlife species, including Quino checkerspot butterfly, vegetation within the off-site parcel must be mapped and the site must have suitable habitat to support Quino checkerspot butterfly per the survey guidelines definition of habitat. Thus, the Proposed Project shall provide mitigation acreage at a ratio in excess of 1:1 (preservation of 1 acre for every 1 acre of impact) and shall adequately mitigate impacts to potential Quino checkerspot butterfly habitat. This mitigation measure also satisfies the mitigation requirements for those portions of the Project Area subject to the Biological Mitigation Ordinance. These areas shall be managed under a Quino Checkerspot Butterfly Management/Enhancement Plan, as discussed further in M-BI-10.

M-BI-10 **Quino Checkerspot Butterfly Management/Enhancement Plan**. Prior to the issuance of the first grading permit that impacts habitat identified as suitable for Quino checkerspot butterfly, the Proposed Project shall prepare a long-term Quino Checkerspot Butterfly Management/Enhancement Plan. At a minimum that plan shall include focused surveys within suitable habitat in the Otay Ranch Resource Management Plan Preserve and Conserved Open Space to determine if the species and suitable host plants are present, and determine areas of potential habitat restoration. The plan shall be submitted to and receive approval from the Director of the Department of Planning & Development Services (or her/his designee) and the Director of Parks and Recreation. The Quino Checkerspot Butterfly Management/Enhancement Plan shall either be superseded or unnecessary upon completion and adoption of a future County Multiple Species Conservation Program Subarea Plan Quino Checkerspot Butterfly Addition. Adaptive management techniques shall be included in the plan, with contingency methods for changed circumstances. These measures shall ensure that the loss of habitat for the species related to the proposed development are adequately offset by measures that will enhance the potential for Quino checkerspot butterfly to occupy the Preserve, and shall provide data that will help the species recover throughout its range.

M-BI-11 **Biological Resource Salvage and Restoration Plan.** Mitigation requirements for the Proposed Project's impacts on special-status plants are based on the analysis within Sections 5.2 and 6.2.2.1 (Impact SP-2) of this report, and the Biological Mitigation Ordinance analysis provided in Appendix A. Prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable sensitive biological resources, including San Diego goldenstar, variegated dudleya, San Diego barrel cactus, San Diego marsh-elder, and Robinson's pepper grass (including plant materials and soils/seed bank), the Proposed Project applicant or its designee shall prepare a Biological Resource and Restoration Salvage Plan. The Resource Salvage and Restoration Plan shall be prepared by a biologist approved by the City of Chula Vista and County of San Diego, to the satisfaction of the Development Services Directors (or her/his designee). Mitigation shall be provided as follows:

Species Common Name (Scientific Name)	Impacts	Mitigation Ratio	Mitigation Provided
San Diego Goldenstar (Bloomeria clevelandii)	17 individuals	3:1	51 individuals

Species Common Name (Scientific Name)	Impacts	Mitigation Ratio	Mitigation Provided
Variegated dudleya (*Dudleya variegata*)	35 individuals	3:1	105 individuals
San Diego barrel cactus (*Ferocactus viridescens*)	36 individuals	2:1	70 individuals (2 individuals are preserved onsite)
San Diego marsh-elder (*Iva hayesiana*)	1,057 individuals	1:1	1,057 individuals
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	112 individuals	2:1	218 individuals (6 individuals are preserved onsite)

The Resource Salvage and Restoration Plan shall, at a minimum, evaluate options for plant salvage and relocation, including individual plant salvage, native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the Otay Ranch Resource Management Plan Preserve. The Resource Salvage and Restoration Plan shall include incorporation of relocation and restoration efforts for variegated dudleya and San Diego barrel cactus, and include San Diego marsh-elder, and Robinson's pepper-grass within restoration areas associated with M-BI-12 or other suitable sites. Relocation efforts may include seed collection and/or transplantation to a suitable receptor site, and shall be based on the most reliable methods of successful relocation. The program shall also include a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success. The program shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, success criteria, and any relevant contingency measures to ensure that no-net-loss is achieved. The program shall also be subject to the oversight of the Development Services Director (or her/his designee). In addition to relocation of existing populations for variegated dudleya and San Diego barrel cactus, the Biological Resource Salvage Plan shall also include additional plantings of these species to achieve a 3:1 and 2:1 mitigation ratio (see the table above).

If populations of San Diego marsh-elder, and Robinson's pepper-grass are found within the 350.1 acres of off-site mitigation, preservation of these populations may be used for mitigation instead of restoration activities.

M-BI-12 **Restoration of Temporary Impacts.** The Proposed Project would result in temporary impacts to sensitive upland and jurisdictional aquatic resources along the off-site portions of Proctor Valley Road, as well as temporary impacts associated within on-site road development. Road development within Village 14 would include 3.7 acres of temporary impacts to sensitive resources and 6.6 acres within the Otay Ranch Resource Management Plan (RMP) Preserve. Within Planning Areas 16/19, there would be 3.4 acres of temporary impacts within the Otay Ranch RMP Preserve. Off-site temporary impacts to sensitive resources would total 49.4 acres: 2.4 acres of temporary impacts to City of Chula Vista land, 21.1 acres of temporary impacts to City of San Diego Cornerstone Lands, and 25.9 acres of temporary impacts to California Department of Fish and Wildlife (CDFW)-owned lands. In addition, there would be minor impacts to County of San Diego lands totaling 0.1 acres. Restoration areas may incorporate salvaged materials, such as seed collection and translocation of plant materials, as determined to be appropriate. The Proposed Project biologist shall review the plant materials prior to grading and determine if salvage is warranted. Prior to grading the Proposed Project, a Conceptual Upland and Wetlands Restoration Plan for impacts within County of San Diego shall be submitted to and receive approval from the Director of the Department of Planning & Development Services (or her/his designee) and the Director of Parks and Recreation. Prior to grading, a separate Conceptual Upland and Wetlands Restoration Plan shall also be prepared and submitted to each city's Development Services Director (or her/his designee) and CDFW for their approval.

The Conceptual Upland and Wetlands Restoration Plans shall include the following to ensure the establishment of the restoration objectives: a 24- by 36-inch map showing the restoration areas, site preparation information, type of planting materials (e.g., species ratios, source, size of container), planting program, 80% success criteria, 5-year monitoring plan, and detailed cost estimate. The cost estimate shall include planting, plant materials, irrigation, maintenance, monitoring, and report preparation. The report shall be prepared by a City of Chula Vista–, City of San Diego–, and County of San Diego–approved biologist and a California-licensed landscape architect. The habitat restored pursuant to the plan must be placed within an open space easement dedicated to the appropriate managing entity prior to or immediately following approval of the plan.

M-BI-13 **Burrowing Owl Preconstruction Survey.** Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, the

Proposed Project applicant or its designee shall retain a County of San Diego (County)-approved biologist to conduct focused preconstruction surveys for burrowing owl. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing, or grading activities. If occupied burrows are detected, the County-approved biologist shall prepare a passive relocation mitigation plan subject to review and approval by the Wildlife Agencies (i.e., California Department of Fish and Wildlife and U.S. Fish and Wildlife Service) and the County, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities.

M-BI-14 **SWPPP.** Prior to issuance of grading permits in portions of the Development Footprint that are adjacent to the Preserve, the Proposed Project applicant or its designee shall develop a stormwater pollution prevention plan (SWPPP). The SWPPP shall be developed, approved, and implemented during construction to control stormwater runoff such that erosion, sedimentation, pollution, and other adverse effects are minimized. The following performance measures contained in the Proctor Valley Preserve Edge Plan shall be implemented to avoid the release of toxic substances associated with construction runoff:

- Sediment shall be retained within the Development Footprint by a system of sediment basins, traps, or other appropriate measures.
- Permanent energy dissipaters shall be included for drainage outlets.
- The best management practices contained in the SWPPP shall include silt fences, fiber rolls, gravel bags, and soil stabilization measures such as erosion control mats and hydroseeding.

The Project Area drainage basins shall be designed to provide effective water quality control measures, as outlined in the SWPPP. Design and operational features of the drainage basins shall include design features to provide maximum infiltration; maximum detention time for settling of fine particles; maximum distance between basin inlets and outlets to reduce velocities; and maintenance schedules for periodic removal of sedimentation, excessive vegetation, and debris.

M-BI-15 **Erosion and Runoff Control.** During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This shall protect sensitive vegetation from being inundated with sediment-laden runoff.

Dewatering shall be conducted in accordance with standard regulations of the Regional Water Quality Control Board (RWQCB). A National Pollutant Discharge Elimination System permit, issued by RWQCB to discharge water from dewatering activities, shall be required prior to start of construction. This shall minimize erosion, siltation, and pollution within sensitive communities.

Design of drainage facilities shall incorporate long-term control of pollutants and stormwater flow to minimize pollution and hydrologic changes. An Urban Runoff Plan and operational best management practices shall be approved by the San Diego County Department of Planning & Development Services prior to construction.

M-BI-16 **Prevention of Invasive Plant Species.** A County of San Diego (County)–approved plant list, as described in the Preserve Edge Plan, shall be used for areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve shall be planted with native species that reflect the adjacent native habitat. A hydroseed mix that incorporates native species, is appropriate to the area, and is without invasive species shall be used for slope stabilization in transitional areas. Per the Preserve Edge Plan, only County-approved vegetation shall be planted in streetscapes or within the 100-foot "edge" between development and the Otay Ranch Resource Management Plan Preserve.

The Planning and Development Services Landscape Architect shall require that all final landscape plans comply with the following: no invasive plant species as included on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the Proposed Project region shall be included, and the plant palette shall be composed of native species that do not require high irrigation rates. The Proposed Project biologist shall periodically check landscape products for compliance with these requirements.

M-BI-17 **Prevention of Chemical Pollutants.** Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County of San Diego (County) agriculture commissioner. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Adviser and implemented by a licensed applicator. Where manual and/or mechanical methods are used, disposal of the plant debris shall follow the regulations set by the County agriculture commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the Pest Control Adviser, the County agriculture commissioner, and the California Invasive Plant Council, with the goal

of controlling populations before they start producing seeds. A manual weeding program shall be implemented on the manufactured slope adjacent to the Preserve to control weeds that are likely to be encouraged by irrigation within the 100-foot Preserve edge/fuel modification zone. Weed control efforts shall occur quarterly or as needed to prevent weeds on the manufactured slopes from moving into the adjacent Preserve. Either the homeowner's association or County's landscape monitoring firm shall be responsible to check the irrigated slopes during plant establishment to verify that excessive runoff does not occur and that any weed infestations are controlled.

During Proposed Project operation, all recreational areas that use chemicals or animal by-products, such as manure, that are potentially toxic or impactive to sensitive habitats or plants shall incorporate best management practices on site to reduce impacts caused by the application and/or drainage of such materials into the Otay Ranch Resource Management Plan Preserve.

M-BI-18 **Noise.** Uses in or adjacent to the Otay Ranch Resource Management Plan (RMP) Preserve with impacts that are not reduced through implementation of the Preserve Edge Plan shall be designed to minimize potential noise impacts to surrounding wildlife species by constructing berms or walls adjacent to commercial areas and any other uses, such as community parks, that may introduce noises that could impact or interfere with wildlife use of the Otay Ranch RMP Preserve.

Construction-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) adjacent to breeding/nesting areas shall incorporate noise-reduction measures (described below) or be curtailed during the breeding/nesting season of sensitive bird species.

There shall be no construction-related activities allowed during the breeding season of migratory birds or raptors (January 15 through August 31) or coastal California gnatcatcher (February 15 through August 31). The Director of Planning & Development Services may waive this condition, through written concurrence from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (i.e., Wildlife Agencies), provided that no nesting or breeding birds are present within 300 feet of the construction activities (500 feet for raptors) based on a preconstruction survey.

If construction-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) occur during the period of February 15 through August 31,

a County of San Diego (County)-approved biologist shall conduct preconstruction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area. If the habitat is suitable for raptors, the survey area shall extend to 500 feet from the impact area, and if the habitat is suitable only for nesting by non-listed and non-raptor avifauna, the survey area shall extend 50 to 300 feet from the impact area, depending on the habitat type. The survey shall begin not more than 3 days prior to the beginning of construction activities. If nesting birds are detected by the biologist, the following buffers shall be established: (1) no work within 50 feet of a non-listed and non-raptor avifauna nest; (2) no work within 300 feet of a federally or state-listed species, such as coastal California gnatcatcher; and (3) no work within 500 feet of a raptor nest. The buffer shall be flagged in the field and mapped on the construction plans. To the extent possible, the non-construction buffer zones shall be avoided until the nesting cycle is complete. However, it may be reasonable for the County to reduce these buffer widths depending on site conditions (e.g., the width and type of screening vegetation) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction-related activities must take place within these buffer widths, the Proposed Project applicant or its designee shall contact the County to determine how to best minimize impacts to nesting birds.

Specific to coastal California gnatcatcher and nesting raptors, construction-related noise levels in coastal California gnatcatcher-occupied habitat within 500 feet of construction activity shall not exceed 60 A-weighted decibels equivalent continuous sound level (dBA L_{eq}) or preconstruction ambient noise levels, whichever is greater. Proposed Project construction within 500 feet of occupied habitat shall occur outside of the breeding season, if possible. If necessary, construction activities during the breeding season shall be managed to limit noise levels in occupied habitat within 500 feet of the site, or noise attenuation measures, such as temporary sound walls, shall be implemented to reduce noise levels below 60 dBA L_{eq} or below existing ambient noise levels, whichever is greater.

M-BI-19 **Fire Protection.** To minimize the potential exposure of the Project Area to fire hazards, all features of the Fire Protection Plan for Otay Ranch Village 14 and Planning Areas 16/19 shall be implemented in conjunction with development of the Proposed Project.

M-BI-20 **Lighting.** Lighting of all developed areas adjacent to the Otay Ranch Resource Management Plan Preserve shall be directed away from the Preserve, wherever

feasible and consistent with public safety. Where necessary, development shall provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the Preserve and sensitive species from night lighting. Consideration shall be given to the use of low-pressure sodium lighting.

6.5 Conclusions: Level of Significance After Mitigation

6.5.1 Sensitive Plant Species

Impact SP-1: Temporary Direct Impacts to Special-Status Plant Species

The significant short-term direct impacts to known occurrences of County List A and B plant species, or those with a moderate to high potential to occur, at the edge of the construction and Preserve interface would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring) and **M-BI-2** (temporary construction fencing). This mitigation, which requires biological monitoring and temporary construction fencing, would prevent and document that construction would not cause additional impacts beyond the Development Footprint.

Impact SP-2: Permanent Direct Impacts to Special-Status Plant Species

The significant long-term direct impacts to plant species described in Section 6.2.2.1 and Table 6-1 would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-3** (habitat conveyance and preservation), and M-BI-4 (biological open space easement). **M-BI-1** (biological monitoring) and **M-BI-2** (temporary construction fencing) would reduce impacts to areas outside of the Development Footprint. **M-BI-3** (habitat conveyance and preservation) would reduce impacts through on-site preservation of suitable habitat. Additionally, **M-BI-11** (biological resource salvage plan), which provides a resource salvage plan to mitigate for impacts to San Diego goldenstar, San Diego marsh-elder; variegated dudleya, a narrow endemic species; barrel cactus; and Robinson's pepper-grass would reduce impacts to less than significant. As a condition of the RMP, an open space easement will be placed over non-graded LDA which will provide for additional habitat preservation.

Impact SP-3: Temporary Indirect Impacts to Special-Status Plant Species

The significant short-term indirect impacts to special-status plant species listed under **Impact SP-3** would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), and **M-BI-17** (prevention of chemical pollutants), which require biological

monitoring during construction, temporary construction fencing, implementation of a SWPPP, erosion and runoff protection, and prevention of chemical pollutants. These impacts would be reduced to less than significant because these measures would prevent and document that construction would not cause additional impacts beyond the Development Footprint; erosion, siltation, and pollution risk would be minimized; and the risk of chemical pollutants being released would be minimized.

Impact SP-4: Permanent Indirect Impacts to Special-Status Plant Species

The significant long-term indirect impacts to special-status plant species listed under Impact SP-4 would be reduced to less than significant through implementation of **M-BI-5** (permanent fencing and signage), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-17** (prevention of chemical pollutants), and **M-BI-19** (fire protection), which provide for permanent fencing and signage, erosion and runoff protection, prevention of invasive species, prevention of chemical pollutants, and fire protection. Potential indirect impacts would be reduced to less than significant because human activity would be restricted to the Development Footprint; erosion, siltation, and pollution risk would be minimized; release of exotic plants and animals would be minimized; the risk of chemical pollutants being released would be minimized; and a Fire Protection Plan would be implemented.

6.5.2 Sensitive Wildlife Species

Impact W-1: Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

Potential significant short-term direct impacts to sensitive wildlife species would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-6** (nesting bird survey), **M-BI-18** (noise) and **M-BI-20** (lighting). These impacts would be reduced to less than significant because the measures would minimize the potential for loss of individuals.

Impact W-2: Permanent Direct Impacts to Habitat for Special-Status Wildlife Species

As stated in Section 6.2.1, the Proposed Project would have direct impacts to habitat supporting several special-status wildlife species, including suitable habitat for golden eagle, Quino checkerspot butterfly and Hermes copper butterfly (see **Impacts W-3, W-4,** and **W-6**). Conservation provided through Otay Ranch RMP, MSCP Plan, and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to MSCP Covered Species to less than significant (**M-BI-3**, habitat conveyance and preservation, and **M-BI-4**, biological open space easement). As a condition of the RMP, an open space easement will be placed over non-graded LDA which will provide for additional habitat preservation. MSCP Covered Species

include Cooper's hawk, burrowing owl, Southern California rufous-crowned sparrow, coastal California gnatcatcher, western bluebird, northern harrier, Blainville's horned lizard, mule deer, cougar, and American badger. There are several sensitive species that were observed in the Project Area and are not MSCP Covered Species; these species are addressed in the Otay Ranch RMP, which includes Ranch-wide preservation goals. These species include western spadefoot, grasshopper sparrow, California horned lark, loggerhead shrike, San Diego black-tailed jackrabbit, San Diego desert woodrat, rosy boa, San Diegan tiger whiptail, and red diamond rattlesnake.

The Proposed Project's contribution to the MSCP and Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a configuration that preserves genetic exchange and species viability. Thus, direct impacts to non-covered sensitive wildlife species, with the exception of Quino checkerspot butterfly and Hermes copper butterfly, would be reduced to less than significant by virtue of the biological mitigation measures provided by the Otay Ranch RMP. Impacts to other County-sensitive wildlife, including red-shouldered hawk, turkey vulture, and barn owl, would be less than significant due to avoidance, minimal impacts, or lack of use of the site for nesting (i.e., turkey vulture). In addition, implementation of **M-BI-1** (biological monitoring), **M-BI-5** (permanent fencing and signage), and **M-BI-6** (nesting bird survey) would ensure that unauthorized impacts to habitat for special-status wildlife are avoided.

Due to the presence of burrowing owl sign within the Project Area and the potential for this species to inhabit the Project Area prior to construction, a burrowing owl preconstruction survey would be required to ensure there are no direct impacts to burrowing owl (**M-BI-13**, burrowing owl preconstruction survey).

Impact W-3: Permanent Direct Impacts to Golden Eagle

The Proposed Project's individual impacts on golden eagle, including golden eagle nests and foraging habitat, would be less than significant, largely because golden eagle is a Covered Species under the MSCP and the Proposed Project is consistent with the MSCP Plan, MSCP County Subarea Plan, and Otay Ranch RMP. In addition, the analysis discussed in Section 6.3.3 supports the conclusion that the Proposed Project would not make a cumulatively considerable contribution to any significant cumulative impact on golden eagle or its nesting or foraging habitat. According to HabiTrak data, habitat gains featuring potential golden eagle foraging/nesting habitat within the MSCP Preserve to date (110,797 acres) represent approximately 80% of the conservation target of 53% (approximately 139,000 acres) (SANDAG 2015). It is estimated that when fully assembled, the MSCP Preserve would conserve potential golden eagle foraging habitat exceeding 139,000 acres total (see Appendix C). In addition, the Proposed Project would contribute golden eagle foraging habitat through the conveyance requirements of the Otay Ranch RMP.

The Proposed Project would preserve foraging/nesting habitat for golden eagle through **M-BI-3** (habitat conveyance and preservation) and **M-BI-4** (biological open space easement). Additionally, **M-BI-5** (permanent fencing and signage) would mitigate for potential long-term impacts by deterring unauthorized human activity within the Otay Ranch RMP Preserve. As a condition of the RMP, an open space easement will be placed over non-graded LDA which will provide for additional habitat preservation.

Impact W-4: Permanent Direct Impacts to Quino Checkerspot Butterfly Suitable Habitat

The Proposed Project has the potential to affect Quino checkerspot butterfly suitable habitat. Such impacts would be significant. Because this species is federally listed as endangered, any take of Quino checkerspot butterfly or any destruction or adverse modification of its habitat would be addressed either through compliance with a future MSCP County Subarea Plan Quino Checkerspot Butterfly Addition, or a Section 7 Consultation or Section 10 incidental take permit, if needed.

For purposes of CEQA compliance, the Proposed Project's significant impacts to Quino checkerspot butterfly would be mitigated to less than significant through implementation of **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), **M-BI-5** (permanent fencing and signage), **M-BI-8** (Quino checkerspot butterfly take authorization), **M-BI-9** (Quino checkerspot butterfly habitat preservation), and **M-BI-10** (Quino checkerspot butterfly management/enhancement plan). As a condition of the RMP, an open space easement will be placed over non-graded LDA which will provide for additional habitat preservation.

Impact W-5: Permanent Direct Impacts to Birds under the MBTA

This impact would be mitigated through avoidance with preconstruction surveys for nesting birds (**M-BI-6**), preconstruction surveys for burrowing owl (**M-BI-13**), and biological monitoring (**M-BI-1**).

Impact W-6: Permanent Direct Impacts Hermes Copper Butterfly Suitable Habitat

The Proposed Project would result in impacts to 18 acres of habitat that could support future Hermes copper butterfly populations. This impact would be mitigated to less than significant through implementation of **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), and **M-BI-5** (permanent fencing and signage). As a condition of the RMP, an open space easement will be placed over non-graded LDA which will provide for additional habitat preservation.

Impact W-7: Temporary Indirect Impacts to Special-Status Wildlife Species

The significant short-term indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-17** (prevention of chemical pollutants), and **M-BI-18** (noise), because the mitigation would prevent construction impacts beyond the Development Footprint.

Impact W-8: Permanent Indirect Impacts to Special-Status Wildlife Species

The significant long-term indirect impacts to special-status wildlife species would be reduced to less than significant through implementation of **M-BI-5** (permanent fencing and signage), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-18** (noise), **M-BI-19** (fire protection), and **M-BI-20** (lighting).

7 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

7.1 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 4.2: 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 [now CDFW] 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 2010a] excluding those without a mitigation ratio) on or off the Project Area. 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 acres 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" 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 [now CDFW]), 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%.
- 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%) 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.

7.2 Analysis of Project Effects

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

Impact V-1: Temporary Direct Impacts to Sensitive Vegetation Communities within the Project Area (including off-sites)

Short-term, construction-related, or temporary direct impacts to sensitive riparian and upland vegetation communities within and outside of the Project Area would primarily result from construction activities. Temporary impacts would occur in conjunction with improvements to and the realignment of Proctor Valley Road within and outside of the Project Area, as well as access roads within Village 14 and Planning Area 16. In addition, clearing, trampling, or grading of sensitive vegetation communities outside designated construction zones could occur in the absence of avoidance and mitigation measures. Potential temporary direct impacts to sensitive vegetation communities would be significant absent mitigation (**Impact V-1**). However, these short-term, direct impacts would be mitigated to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), and **M-BI-21** (federal and state agency permits; see County Guideline 4.2.B, above). Specific details regarding temporary impacts and mitigation for off-site impacts within the City of Chula Vista and City of San Diego are described under Impact V-3 and Impact V-4, below.

Impact V-2: Permanent Direct Impacts to Sensitive Vegetation Communities within Village 14 and Planning Areas 16/19

Permanent direct impacts to sensitive riparian and upland vegetation communities are analyzed in Section 5.1.1.2. The Proposed Project would cause the direct loss of 699.4 acres of sensitive vegetation communities (uplands and riparian) within Village 14 and Planning Areas 16/19 (Table 5-1). The Proposed Project would result in impacts to seven sensitive vegetation

communities (Tables 5-1 and 5-2). Specifically, impacts to granitic chamise chaparral (including disturbed), southern mixed chaparral, coastal sage scrub (including disturbed), non-native grassland, open water, mulefat scrub, cismontane alkali marsh (including disturbed), and southern willow scrub would be significant impacts absent mitigation (**Impact V-2**).

M-BI-1 (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), **M-BI-5** (permanent fencing and signage), and **M-BI-21** (federal and state agency permits; see County Guideline 4.2.B), described in Section 6.4, would mitigate for this impact through habitat preservation, construction-related measures to reduce impacts outside of the Development Footprint, permanent fencing and signage where needed to protect the MSCP, and agency permitting for impacts to jurisdictional resources. With implementation of these measures, potentially significant impacts to sensitive vegetation communities within Village 14 and Planning Areas 16/19 would be mitigated to less than significant.

Impacts V-3, V-4, V-5, V-6, and V-7: Off-Site Permanent and Temporary Direct Impacts

Off-site impacts to granitic chamise chaparral (including disturbed), southern mixed chaparral, coastal sage scrub (including disturbed), coastal sage scrub – *Baccharis* dominated (including disturbed), non-native grassland, mulefat scrub, freshwater marsh, southern willow scrub, disturbed cismontane alkali marsh, and unvegetated stream channel would total approximately 85.4 acres (53.2 acres of temporary impacts and 32.1 acres of permanent impacts), and would be significant absent mitigation (**Impacts V-3** through **V-**7, described below). Table 5-3 summarizes the impacts to these off-site areas based on the vegetation community and the location of the off-site impact.

Impact V-3: City of San Diego Cornerstone Lands

Portions of Proctor Valley Road South (including infrastructure facilities) are located within the City of San Diego Cornerstone Lands and the City of San Diego MHPA. Absent mitigation, this impact would be significant (**Impact V-3**). Mitigation requirements for permanent impacts are presented in Table 7-1. These impacts would be mitigated through implementation of **M-BI-4**, which provides a biological open space easement over Conserved Open Space. A portion of the Conserved Open Space would used to satisfy the 11.3 acres mitigation required for permanent impacts. **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), and **M-BI-21** (federal and state agency permits), described in Section 7.4, would mitigate for this impact through implementation of construction-related measures to reduce impacts outside of the off-site improvement areas, restoration of temporarily impacted areas, and preservation of land. Temporary impacts (22.6 acres) to City of San Diego

Cornerstone Lands would be revegetated with native vegetation. Temporary impacts to the existing road would be restored as part of the revegetation plan, and, as such, would result in the conversion of 1.1 acres of existing road to native vegetation. In addition, realignment of Proctor Valley Road South would result in 4.7 acres of the existing road to be abandoned in place. With implementation of these measures, potentially significant impacts to sensitive vegetation communities within the City of San Diego Cornerstone Lands would be mitigated to less than significant.

Table 7-1
Mitigation Requirements for Permanent Impacts to City of San Diego (Cornerstone Lands)

Mitigation Criteria	Vegetation Community	Impacts (Acres)	Mitigation Ratio	Required Mitigation (Acres)[a]
Upland	Diegan coastal sage scrub (including disturbed)	6.6	1:1 (preservation inside MHPA)	6.6
	Diegan coastal sage scrub – *Baccharis*-dominated (including disturbed)	0.4	1:1 (preservation inside MHPA)	0.4
	Non-native grassland	2.6	1:1 (preservation inside MHPA)	2.6
	Southern mixed chaparral	1.4	1:1 (preservation inside MHPA)	1.4
Wetlands	Mulefat scrub	0.1	2:1	0.2
	Unvegetated channel	<0.1	2:1	0.1
No mitigation required	Urban/developed	0.3	None	0
	Disturbed habitat	0.6	None	0
Total impacts requiring mitigation				**11.1**
Total required mitigation				**11.3**

MHPA = Multiple Habitat Planning Area.

[a] The mitigation ratio and required mitigation is based on the assumption that the mitigation lands would be located inside the MHPA. Mitigation occurring outside the MHPA would be required at a higher ratio.

Impact V-4: Lands within City of Chula Vista

As shown in Table 5-3, direct impacts to lands within the City of Chula Vista would result from improvements to Proctor Valley Road (including infrastructure facilities). As described in Section 2.4.1, City of San Diego MSCP Subarea Plan, this portion of Proctor Valley Road is defined as the "easternmost reach" (from Neighborhood 9 in Rolling Hills Ranch project) and is a Covered Project under the City of Chula Vista's MSCP Subarea Plan. Impacts associated with this reach of Proctor Valley Road were analyzed as part of the Rolling Hills Ranch project's CEQA analysis. An easement to accommodate the future alignment of Proctor Valley Road's easternmost reach was granted per the City of Chula Vista's Final Map 14756A. As part of this agreement, no further mitigation for impacts to non-wetland is required (see Appendix B); therefore, impacts to these communities are not considered significant. However, this document

still analyzes impacts to jurisdictional aquatic resources (see County Guideline 4.2.B) and temporary impacts to sensitive habitat (2.3 acres).

This off-site area is located outside of the Otay Ranch boundary and is subject to City of Chula Vista Facilities Siting Criteria, as described in Section 2.4.1. The off-site impacts within the City of Chula Vista would not conflict with the goals or standards of the City of Chula Vista's MSCP Subarea Plan since the impacts would be for road improvements. However, compliance with the City of Chula Vista's facilities siting is required to ensure that the road improvements are located in the least environmentally sensitive areas and that impacts to the Preserve are minimized to the maximum extent practical (see Section 2.4.7). **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), and **M-BI-12** (restoration of temporary impacts) described in Section 2.4.1 would mitigate for this impact through implementation of construction-related measures to reduce impacts outside of the off-site improvement areas and restoration of temporarily impacted areas. All temporary impacts (2.8 acres) to vegetation within the City Chula Vista would be mitigated through revegetation with native plant species (**M-BI-12**). Temporary impacts to the existing road would be restored as part of the revegetation plan, and, as such, would result in the conversion of 0.4 acres of existing road to native vegetation. In addition, **M-BI-21** (federal and state agency permits) would be required for impacts to jurisdictional resources (see County Guideline 4.2.B). With implementation of these measures, potentially significant impacts to sensitive vegetation communities within the City of Chula Vista would be mitigated to less than significant.

Impact V-5: Off-Site Private Lands

As shown in Table 5-3, direct impacts to off-site private lands would occur as a result of road grading associated with the new right-of-way for Proctor Valley Road South. This would result in 0.3 acres of temporary impacts and 0.2 acres of permanent impacts to Diegan coastal sage scrub, and 0.1 acres of permanent impact to non-native grassland, both of which are sensitive upland communities. Off-site impacts to private lands subject to the MSCP County of San Diego Subarea Plan associated with construction of Proctor Valley Road would not require mitigation for permanent impacts, since Proctor Valley Road is a planned facility within the MSCP County Subarea Plan. However, incidental direct impacts to sensitive vegetation resulting from construction of Proctor Valley Road would be **significant** (**Impact V-5**). **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), and **M-BI-12** (restoration of temporary impacts) described in Section 6.4 would mitigate for this impact through implementation of construction-related measures to reduce impacts outside of the Development Footprint and restoration of temporary impacts. With implementation of these measures, potentially significant impacts to sensitive vegetation communities within off-site Otay Ranch lands would be mitigated to less than significant.

Impact V-6: County of San Diego Road Easement

As shown in Table 5-3, direct impacts to County roads as a result of the improvements to Proctor Valley Road North would total 0.3 acres (0.1 acres temporary and 0.2 acres permanent). Of this total impact area, less than 0.1 acres is to sensitive upland communities (coastal sage scrub and grassland). These off-site impacts are subject to the MSCP County Subarea Plan. Construction of Proctor Valley Road would not require mitigation for permanent impacts since Proctor Valley Road is a planned facility within the MSCP County Subarea Plan. However, incidental direct impacts to sensitive vegetation resulting from construction of Proctor Valley Road would be **significant** (**Impact V-6**). **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), and **M-BI-12** (restoration of temporary impacts) described in Section 6.4 would mitigate for this impact through implementation of construction-related measures to reduce impacts outside of the off-site improvement areas and through restoration of temporarily impacted areas. Temporary impacts to vegetation within the off-site County lands would be mitigated through revegetation with native plant species (**M-BI-12**). With implementation of these measures, potentially significant impacts to sensitive upland vegetation communities within off-site County lands would be mitigated to less than significant.

Impact V-7: Off-Site CDFW-Owned Lands

As shown in Table 5-3, direct impacts to CDFW-owned lands as a result of road grading would total 45.2 acres (17.5 acres permanent and 27.7 acres temporary) (**Impact V-7**). These CDFW-owned lands are part of the Otay Ranch GDP/SRP, MSCP Plan, MSCP County Subarea Plan, and Otay Ranch RMP. The majority of impacts, 42 acres, would be to sensitive upland communities, including Diegan coastal sage scrub, granitic chamise chaparral, southern mixed chaparral, and non-native grassland. Minor impacts, 0.01 acres, would occur to southern willow scrub. **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), and **M-BI-21** (federal and state agency permits) described in Section 6.4 would mitigate for this impact through implementation of construction-related measures to reduce impacts outside of the off-site improvement areas and through restoration of temporarily impacted areas. Since the Otay Ranch RMP specifically excludes Mobility Element roads (per general plans) from the conveyance requirements, permanent impacts to sensitive vegetation communities within CDFW-owned lands associated with improvements to Proctor Valley Road would not require mitigation. In addition to the improvements to Proctor Valley Road, two connector roads within Planning Area 16 would be constructed within land owned by CDFW. The underlying Otay Ranch GDP/SRP designations for these areas are development and LDA. Impacts stemming from construction of these new roads would total 15.8 acres to coastal sage scrub and southern mixed chaparral, of which 9.1 acres would be permanent impacts. The temporary impacts (6.7 acres) would be mitigated through restoration in accordance with **M-BI-**

12, and permanent impacts would be mitigated through conveyance of additional habitat to the Otay Ranch RMP Preserve (**M-BI-3**). With implementation of these measures, potentially significant impacts to sensitive vegetation communities within CDFW lands would be mitigated to less than significant.

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

Any adverse change to jurisdictional aquatic resources (i.e., wetlands and riparian habitat under the jurisdiction of ACOE, RWQCB, and/or CDFW) resulting from construction activities, as analyzed in Section 5.4, would be significant. Within the Project Area, ACOE, RWQCB, and CDFW jurisdictions follow the same boundaries.

Impact V-10: Temporary Direct Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

Short-term, construction-related, or temporary direct impacts to jurisdictional aquatic resources would primarily result from construction activities. Clearing, trampling, or grading of jurisdictional aquatic resources outside of designated construction zones could occur in the absence of avoidance and mitigation measures. Potential temporary direct impacts to jurisdictional aquatic resources within the Project Area would be significant, absent mitigation (**Impact V-10**). Short-term, direct impacts would be mitigated to a level below significance through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), and **M-BI-21** (federal and state agency permits). These mitigation measures would prevent and document that construction would not cause additional impacts outside of the Development Footprint, ensure restoration of 0.12 acres of wetlands/riparian habitat and unvegetated stream channel, and require permits from the appropriate federal and state agencies relating to impacting jurisdictional resources. The above mitigation measures are described in Sections 6.4 and 7.4.

Impact V-11: Permanent Direct Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

The Proposed Project would permanently impact 1.33 acres of ephemeral non-wetland waters/ streambed and 1.20 acres of wetlands/riparian habitat within Village 14 and Planning Areas 16/19 (**Impact V-11**) (Figures 5-1 and 5-1a through 5-1cc; Table 5-7). As shown in Table 5-8, Impacts to Off-Site ACOE/RWQCB/CDFW-Jurisdictional Aquatic Resources by Jurisdiction, the Proposed Project would also permanently disturb 0.21 acres of off-site jurisdictional aquatic resources, mostly due to proposed Proctor Valley Road improvements. Approximately

0.07 acres of this permanent impact would occur in the City of San Diego Cornerstone Lands. In addition, improvements to Proctor Valley Road would permanently disturb 0.12 acres of wetland/riparian habitat within the City of Chula Vista. Roadway impacts associated with Planning Areas 16/19 would include Proctor Valley Road North and Proctor Valley Road Central, which would impact 0.02 acres of wetland/riparian habitat within CDFW-owned lands. Permanent impacts to 2.74 acres of jurisdictional aquatic resources within the Development Footprint would be significant absent mitigation. **M-BI-21** (federal and state agency permits) described in Section 7.4 would mitigate for this impact through coordination with federal and state agencies to obtain the appropriate permits and approvals for impacts to jurisdictional aquatic resources. This impact would be mitigated to less than significant through implementation of the above described mitigation measures.

Impact V-12: Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

Potential short-term or temporary indirect impacts to jurisdictional resources in the Project Area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides) (**Impact** V-12). Absent mitigation, these potential short-term or temporary indirect impacts to jurisdictional aquatic resources would be significant. **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), and **M-BI-17** (prevention of chemical pollutants) described in Section 6.4 would mitigate these impacts to less than significant. These measures would mitigate for these impacts through implementation of construction-related measures to reduce impacts outside of the Development Footprint, implementation of a SWPPP, implementation of erosion and runoff control measures, and prevention of chemical spills.

Impact V-13: Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

Long-term or permanent indirect impacts could result from the proximity of the Proposed Project to jurisdictional aquatic resources after construction. Permanent indirect impacts that could affect jurisdictional resources include fugitive dust, chemical pollutants, altered hydrology, non-native invasive species, increased human activity, alteration of the natural fire regime, and shading (**Impact V-13**). Absent mitigation, these potential long-term or permanent indirect impacts to jurisdictional resources would be significant. **M-BI-5** (permanent fencing and signage), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), and **M-BI-17** (prevention of chemical pollutants) described in Section 6.4 would

mitigate for these impacts to less than significant. In addition, the Proposed Project applicant is required to obtain agency permits for temporary and permanent impacts to jurisdictional aquatic resources, which would include measures to reduce indirect impacts (**M-BI-21**). These measures would mitigate for these impacts through implementation of construction-related measures to reduce impacts outside of the Development Footprint, implementation of a SWPPP, implementation of erosion and runoff control measures, prevention of release of exotic plants and animals, and prevention of chemical spills.

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

The Proposed Project would obtain its water supply from the Otay Water District, which, in turn, obtains water from surface reservoirs and other imported water sources. The Proposed Project does not propose use of groundwater for any purpose. Therefore, the Proposed Project would not impact groundwater or groundwater-dependent habitat.

7.2.4 Project Effects Relevant to Guideline 4.2.D (Indirect Impacts to Sensitive Habitat)

Impact V-8: Temporary Indirect Impacts to Sensitive Vegetation Communities within the Project Area (Including Off-Site Improvement Areas)

Potential short-term or temporary indirect impacts to sensitive vegetation communities in the Project Area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants, including herbicides (**Impact V**-8). Absent mitigation, potential short-term indirect impacts to special-status vegetation communities that occur within the Project Area would be significant. **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-17** (prevention of chemical pollutants), and **M-BI-21** (federal and state agency permits) described in Sections 6.4 and 7.4 would mitigate these impacts to less than significant. The measures would mitigate for this impact through implementation of construction-related measures to reduce impacts outside of the Development Footprint, implementation of a SWPPP, implementation of erosion and runoff control measures, prevention of chemical spills, and implementation of federal and state agency permit requirements.

Impact V-9: Permanent Indirect Impacts to Sensitive Vegetation Communities within the Project Area (Including Off-Site Improvement Areas)

Long-term or permanent indirect impacts could result from the proximity of the Proposed Project to sensitive vegetation communities after construction (e.g., maintenance of roads, residential units, commercial space, school, parks, and trails) (**Impact V-9**). Permanent indirect impacts that could affect special-status vegetation communities include generation of fugitive dust, chemical pollutants, altered hydrology, non-native invasive species, increased human activity, and alteration of the natural fire regime. Absent mitigation, potential long-term indirect impacts to special-status vegetation communities that occur within the Project Area would be significant. **M-BI-5** (permanent fencing and signage), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-17** (prevention of chemical pollutants), and **M-BI-19** (fire protection) described in Section 6.4 would mitigate for these impacts. These measures would mitigate for this impact through construction-related measures to reduce impacts outside of the Development Footprint, SWPPP implementation, erosion and runoff control measures, minimization of release of exotic plants and animals, implementation of a Fire Protection Plan, and prevention of chemical spills.

7.2.5 Project Effects Relevant to Guideline 4.2.E (Resource Protection Ordinance Buffers)

As stated in Section 2.3.5, Otay Ranch Resource Management Plan Phase I and II, the Otay Ranch RMP is intended to be the functional equivalent of the County of San Diego RPO (County of San Diego 2007) for Otay Ranch, and is a component of the MSCP County Subarea Plan. As such, subsequent Otay Ranch projects are exempt from the provisions of the County RPO if determined to be consistent with a Comprehensive Resource Management and Protection Program, such as the Otay Ranch RMP. Since the Proposed Project is consistent with the Otay Ranch RMP, it is not subject to the County RPO and the required wetland buffers. Therefore, **no impact** would result.

7.3 Cumulative Impact Analysis

The loss of riparian habitat and sensitive natural communities would be mitigated through the conveyance of 1.188 acres of Otay Ranch RMP Preserve land to the POM for each developed acre impacted, minus the common use areas not subject to conveyance,[16] along with habitat

[16] Common uses within the Project Area include 15.2 acres of public parks, the 9.7-acre elementary school, 12.8 acres of major circulation, and the 2.3-acre public safety site. In addition, Planning Area 16 contains 127.1 acres of LDA that is not subject to conveyance. Areas of Conserved Open Space are also excluded from the conveyance total (72.4

restoration of temporarily impacted areas. This conveyance program, coupled with the restoration of temporary impacts, would adequately conserve a greater or equal amount of riparian habitat and other sensitive natural communities within Otay Ranch. Implementation of these measures and consistency with the required planning documents mitigates cumulative biological impacts to riparian habitats and other sensitive natural communities to **less than cumulatively considerable**.

7.4 Mitigation Measures and Design Considerations

Mitigation for short-term and long-term direct impacts to special-status vegetation communities would be provided by **M-BI-1** (biological monitoring to avoid unintentional construction impacts), **M-BI-2** (temporary construction fencing), **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), **M-BI-5** (permanent fencing and signage), and **M-BI-12** (restoration of temporary impacts), which are described in Section 6.4. The Proposed Project would result in on-site and off-site impacts to jurisdictional aquatic resources (i.e., wetlands and non-wetland waters under the jurisdiction of ACOE and RWQCB, and streambeds and associated riparian habitat under the jurisdiction of CDFW). Implementation of **M-BI-21**, described below, would ensure no net loss of jurisdictional aquatic resources within the watershed, and would reduce direct impacts to jurisdictional waters to less than significant.

As described in Section 5.1.1.2, the Proposed Project would impact approximately 33.7 acres of City of San Diego Cornerstone Lands, 11.1 acres of which would be permanent impacts to sensitive vegetation communities (Table 7.1, **Impact V-3**). Mitigation for proposed direct impacts, totaling 11.3 acres, would be through preservation of habitat within Conserved Open Space (**M-BI-4**). As described in Section 5.1.1.2, the Proposed Project would involve approximately 2.4 acres of temporary impacts and 2 acres of permanent impacts to sensitive vegetation communities within the City of Chula Vista (Table 7-1, **Impact V-4**). Since impacts to these resources are subject to the Facilities Siting Criteria contained in the Chula Vista MSCP Subarea Plan (City of Chula Vista 2003), no additional mitigation is required.

Mitigation for short-term (**Impact V-7**) and long-term (**Impact V-8**) indirect impacts to special-status vegetation communities both on- and off-site are analyzed in Section 5.1.2. The Proposed Project would require **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-17** (prevention of chemical pollutants), and **M-BI-21** (federal and state agency permits; described below). These

acres). Total Proposed Project impacts, less these common areas, Conserved Open Space, and LDA and including roads within Planning Areas 16/19, is 653.9 acres.

impacts would be mitigated to less than significant through implementation of the above-listed mitigation measures.

M-BI-21 **Federal and State Agency Permits.** Prior to impacts occurring to U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) (collectively, the Resource Agencies) jurisdictional aquatic resources, the Proposed Project applicant or its designee shall obtain the following permits: ACOE 404 permit, RWQCB 401 Water Quality Certification, and CDFW Fish and Game Code 1600 Streambed Alteration Agreement. The overall ratio of wetland/riparian habitat mitigation shall be 3:1. Impacts shall be mitigated at a 1:1 impact-to-creation ratio by either the creation, or purchase of credits for the creation, of jurisdictional habitat of similar functions and values. An addition 2:1 enhancement-to-impact ratio shall be required to meet the overall 3:1 impact-to-mitigation ratio for impacts to wetlands/riparian habitat. Impacts to unvegetated and ephemeral stream channels shall occur at a 1:1 impact-to-creation ratio. A suitable mitigation site shall be selected and approved by the Resource Agencies during the permitting process.

If mitigation is proposed to occur within the Project Area or within the additional off-site areas needed for conveyance, then a Wetlands Mitigation and Monitoring Plan shall be prepared. Prior to issuance of land development permits, including clearing, grubbing, and grading permits for activities that would impact jurisdictional aquatic resources, the Proposed Project applicant shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the Director of Planning & Development Services (or his/her designee), the Director of Parks and Recreation, ACOE, RWQCB, and CDFW. The Conceptual Wetlands Mitigation and Monitoring Plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation.

7.5 Conclusions

Impact V-1: Temporary Direct Impacts to Sensitive Vegetation Communities within the Project Area (Including Off-Site Improvement Areas)

The significant temporary direct impacts to sensitive vegetation communities would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), and **M-BI-21**

(federal and state agency permits; see County Guideline 4.2.B), which would mitigate for this impact through construction-related measures to reduce impacts outside of the off-site improvement areas, restoration of temporary impacted areas, and implementation of agency permitting requirements for impacts to jurisdictional aquatic resources.

Impact V-2: Permanent Direct Impacts to Sensitive Vegetation Communities within Village 14 and Planning Areas 16/19

The significant permanent, direct impact to 689.7 acres of vegetation communities within Village 14 and Planning Areas 16/19 (Tables 5-1 and 5-2) would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), **M-BI-5** (permanent fencing and signage), and **M-BI-21** (federal and state agency permits for jurisdictional resources, see County Guideline 4.2.B). These measures would mitigate for this impact through habitat preservation, construction-related measures to reduce impacts outside of the Development Footprint, permanent fencing and signage where needed to protect Preserve lands, and restoration of temporarily impacted areas.

Impact V-3: City of San Diego MSCP Cornerstone Lands

The significant permanent and temporary direct impact to City of San Diego Cornerstone Lands would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), M-BI-4 (biological open space easement), **M-BI-12** (restoration of temporary impacts), and **M-BI-21** (federal and state agency permits), which would mitigate for this impact through construction-related measures to reduce impacts outside of the off-site improvement areas, restoration of temporarily impacted areas, and preservation of land. The significant temporary, direct impacts to Cornerstone Lands would also be reduced to less than significant through implementation of these mitigation measures.

Impact V-4: Lands Within City of Chula Vista

The significant temporary, direct impacts to lands within the City of Chula Vista as a result of improvements to Proctor Valley Road would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), and **M-BI-21** (federal and state agency permits), which would mitigate for this impact through construction-related measures to reduce impacts outside of the off-site improvement areas, restoration of temporarily impacted areas, and implementation of agency permit requirements. The significant temporary, direct impacts to

vegetation within the City Chula Vista would also be reduced to less than significant through implementation of these mitigation measures.

Impact V-5: Off-Site Private Lands

Direct impacts related to off-site road development in private lands are subject to the MSCP County Subarea Plan (County of San Diego 1997), which states that these facilities are an allowable use in the Preserve and would not require mitigation for permanent impacts; therefore, permanent impacts are not considered significant. However, incidental direct impacts to sensitive vegetation resulting from construction of Proctor Valley Road would be significant. The significant temporary, direct impacts to off-site lands within Otay Ranch would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring) and **M-BI-2** (temporary construction fencing), which would mitigate for this impact through construction-related measures to reduce impacts outside of the Development Footprint.

Impact V-6: Off-Site San Diego County Road Easement

Impacts to off-site road development within the County of San Diego would be mitigated through **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), and **M-BI-12** (restoration of temporary impacts). Implementation of these mitigation measures would reduce impacts to sensitive upland habitats to less than significant.

Impact V-7: Off-Site CDFW-Owned Lands

Direct impacts to CDFW-owned lands as a result of road grading would total 46.4 acres (12.1 acres permanent and 34.3 acres temporary) (**Impact V-7**). **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), and **M-BI-21** (federal and state agency permits) would mitigate for this impact through construction-related measures to reduce impacts outside of the off-site improvement areas and restoration of temporarily impacted areas. Since the Otay Ranch RMP specifically excludes Mobility Element roads from the conveyance requirements, permanent impacts to sensitive vegetation communities within CDFW-owned lands associated with improvements to Proctor Valley Road would not require mitigation. However, the two connector roads within Planning Area 16 would require mitigation. Permanent impacts to sensitive vegetation communities would be mitigated through additional conveyance to the Otay Ranch RMP Preserve (**M-BI-3**).

Impact V-8: Temporary Indirect Impacts to Sensitive Vegetation Communities within the Project Area (Including Off-Site Improvement Areas)

Significant indirect impacts to sensitive vegetation communities would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-17** (prevention of chemical pollutants), and **M-BI-21** (federal and state agency permits).

Impact V-9: Permanent Indirect Impacts to Sensitive Vegetation Communities within the Project Area (Including Off-Site Improvement Areas)

Significant permanent indirect impacts to sensitive vegetation communities would be reduced to less than significant through implementation of **M-BI-5** (permanent fencing and signage), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-17** (prevention of chemical pollutants), and **M-BI-19** (fire protection).

Impact V-10: Temporary Direct Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

Significant temporary direct impacts to jurisdictional aquatic resources would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-12** (restoration of temporary impacts), and **M-BI-21** (federal and state agency permits).

Impact V-11: Permanent Direct Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

Significant permanent direct impacts to 2.8 acres of jurisdictional resources would be reduced to less than significant through implementation of **M-BI-21** (federal and state agency permits), which would mitigate for this impact through coordination with federal and state agencies to obtain the appropriate permits and approval for impacts to jurisdictional aquatic resources.

Impact V-12: Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

The significant temporary indirect impacts to jurisdictional resources would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-17** (prevention of chemical pollutants), and M-BI-21 (federal and state agency permits).

Impact V-13: Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Project Area (Including Off-Site Improvement Areas)

The significant permanent indirect impacts to jurisdictional aquatic resources would be reduced to less than significant through implementation of **M-BI-5** (permanent fencing and signage), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), and **M-BI-17** (prevention of chemical pollutants).

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8 JURISDICTIONAL WETLANDS AND WATERWAYS

8.1 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 and refers only to federally protected wetlands (County of San Diego 2010a):

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.

The significance of impacts shall be determined under County Guidelines 4.2B, C, and E.

8.2 Analysis of Project Effects Relevant to Guideline 4.3 (Federally Protected Wetlands)

As described in Section 7.2, Analysis of Project Effects, the Proposed Project would have temporary and permanent direct impacts to jurisdictional aquatic resources, including wetlands, as defined by Section 404 of the Clean Water Act (**Impacts V-10** through **V-13**). Direct impacts would occur both within the Development Footprint and in off-site areas (Tables 5-7 and 5-8). **Impacts V-10** through **V-13** would be mitigated through **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-5** (permanent fencing and signage), **M-BI-12** (restoration of temporary impacts), **M-BI-14** (SWPPP), **M-BI-15** (erosion and runoff control), **M-BI-16** (prevention of invasive plant species), **M-BI-17** (prevention of chemical pollutants), and **M-BI-21** (federal and state agency permits).

8.3 Cumulative Impact Analysis

See the discussion in Section 7.3.

8.4 Mitigation Measures and Design Considerations

Mitigation measures applicable to County Guideline 4.3 are discussed in Section 7.4 of this report.

8.5 Conclusions

Refer to Section 7.5 for the conclusions related to **Impacts V-10** through **V-13**.

9 WILDLIFE MOVEMENT AND NURSERY SITES

9.1 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.

9.2 Analysis of Project Effects

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

Impact WLC-1: Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors

Short-term temporary direct impacts to potential foraging and breeding habitat for species that use the Project Area (e.g., special-status birds) would primarily result from construction activities. Clearing, trampling, or grading of foraging and breeding habitat outside designated construction zones could occur in the absence of avoidance and mitigation measures. Potential temporary direct impacts to foraging and breeding habitat on site would be significant, absent mitigation (**Impact WLC-1**). However, these short-term, direct impacts would be mitigated to a level below significance through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), and **M-BI-12** (restoration of temporary impacts), which would mitigate for this impact through construction-related measures to reduce impacts outside of the Development Footprint and through restoration of temporarily impacted areas.

The Project Area occurs within the originally designated developable lands as identified in the Otay Ranch RMP and would therefore retain the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992b) and the BRCAs identified in the MSCP Plan (MSCP 1998). In addition, where necessary and as required by Policy 4.1 of the Otay Ranch RMP, wildlife crossings have been designed and would be constructed along Proctor Valley Road (Figures 5-3 through 5-7). Therefore, the Proposed Project is not anticipated to impact long-term wildlife movement between the Jamul Mountains and San Miguel Mountain. Thus, Proposed Project impacts to wildlife movement/habitat linkages would be less than significant.

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

The Project Area functions as part of a large habitat block. The Proposed Project Development Footprint is located within the originally designated developable lands as identified in the Otay Ranch RMP, which relied on the findings of the Ogden wildlife corridor study. Therefore, the Proposed Project would retain the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992b) and the BRCAs identified in the MSCP Plan (MSCP 1998). Based on the information provided in Section 5.5, the Proposed Project would have **less than significant direct impacts** on habitat linkages and movement corridors. In addition, where necessary and as required by Policy 4.1 of the Otay Ranch RMP, wildlife crossings have been designed and would be constructed along Proctor Valley Road (Figures 5-3 through 5-7).

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

One of the objectives of the Otay Ranch RMP (City of Chula Vista and County of San Diego 1993b) was to design the Preserve to provide adequate habitat linkages and wildlife corridors to accommodate gene flow, increased foraging habitat, access to larger habitat areas by larger predators, and increased overall wildlife movement based on the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992b). The Ogden Wildlife Corridor Studies, which are recognized as the foundational wildlife corridor studies for the area, describe the Proctor Valley area as providing a northerly wildlife movement corridor between San Miguel Mountain and the Jamul Mountains. The Proposed Project Development Footprint is located within the originally designated developable lands as identified in the Otay Ranch RMP (City of Chula Vista and County of San Diego 1993b), which relied on the findings of the Ogden study. The Proposed Project would, therefore, retain the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992b) and the BRCAs identified in the Final MSCP (MSCP 1998). Wildlife currently has the ability to use the entire Project Area, but there are identified corridors within the Project Area (Figure 4-5). The Development Footprint does not encroach upon the Proctor Valley regional wildlife corridor (R1). Where R1 crosses over Proctor Valley Road, a wildlife crossing would be provided (see Section 5.5.1.2). Wildlife crossings would also be provided where Proctor Valley Road and an internal road cross L4. Although there would be development within the area identified as L3, it is expected that wildlife would use the corridor between Village 14 and Planning Areas 16/19. A wildlife crossing would be provided in this area to facilitate movement. By maintaining the natural corridors R1 and L4, as well as providing an alternative route for L3, the Proposed Project would support natural movement patterns and would not create artificial movement corridors. Therefore, impacts to wildlife movement/habitat linkages would be **less than significant**.

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

The Project Area functions as part of a large habitat block, and as explained in previous sections, the Proposed Project would have **less than significant direct** habitat linkages or movement corridors impacts. However, wildlife movement through these corridors may be indirectly impacted by adjacent proposed development (**Impacts WLC-2** and **WLC-3**).

Impact WLC-2: Temporary Indirect Impacts to Habitat Connectivity and Wildlife Corridors

Potential short-term indirect impacts to habitat connectivity and wildlife corridors could result from increased human activity, lighting, and noise during construction and occupancy (**Impact WLC-2**). Absent mitigation, these potential short-term indirect impacts to habitat connectivity and wildlife corridors would be significant. **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-18** (noise), and **M-BI-20** (lighting) would mitigate for these impacts to less than significant through construction-related measures to reduce impacts outside of the Development Footprint, direct lighting away from the Otay Ranch RMP Preserve, and minimizing potential noise impacts. These mitigation measures are fully described in Section 6.4.

Impact WLC-3: Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors

Long-term indirect impacts to habitat connectivity and wildlife corridors would include habitat fragmentation, human activity, lighting, and noise from the proposed urban development, recreational facilities, and human activity (**Impact WLC-3**). Absent mitigation, these potential long-term indirect impacts to habitat connectivity and wildlife corridors would be significant. **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), **M-BI-5** (permanent fencing and signage), **M-BI-18** (noise), and **M-BI-20** (lighting) described in Section 6.4 would mitigate these impacts to less than significant. As a condition of the RMP, an open space easement will be placed over non-graded LDA which will provide for additional habitat preservation.

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

As stated in Section 4.8, the Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992) identified a number of local and regional wildlife corridors within the Proctor Valley Parcel (Figure 4-4). A full description of the wildlife corridors and crossings is provided in Section 5.5.1.2. The L4 corridor follows the Proctor Valley drainage and would largely be avoided by the Proposed Project, with the exception of the road crossing connecting the small area of

development to the west (R12, see Figure 1-4). Proctor Valley Road currently crosses L4 in the south. A wildlife crossing would be provided in this area to facilitate movement. The Development Footprint between a residential area (R12) and the Village 14 Village Core would avoid the Proctor Valley drainage, and a 1-acre strip of Conserved Open Space would further buffer the corridor from development. The portion of the mapped corridor that bends toward the east of the Project Area within Planning Area 16 is partially within the Development Footprint. Since the Project Area is essentially surrounded by open space, wildlife has the opportunity to traverse the area just to the south of development and connect to corridor L3. Conserved Open Space at the southern end of Planning Area 16 would provide additional buffer from development and the corridor. The corridors identified in the Ogden study are generalized, and wildlife would select the best areas for movement. This corridor connects to L3 in the northern portion, which then passes south through BLM land in the eastern portion. The Proposed Project Preserve is located within the originally designated hardline Preserve lands as identified in the Otay Ranch RMP, which relied on the findings of the Ogden wildlife corridor study; therefore, the Proposed Project would retain the functions and values of the corridors identified in the wildlife corridor study (Ogden 1992), and the BRCAs identified in the MSCP Plan.

As described in the Otay Ranch RMP, revisions to the Proctor Valley Development Footprint were specifically made, as a part of the original Otay Ranch GDP/SRP approval in 1993, to resolve general Otay Ranch RMP Preserve design and wildlife habitat connectivity issues (see Section 5.5.1.2). With these revisions, the Proctor Valley regional wildlife corridor (R1) was designed to become an extensive linkage, with a required minimum width of 1,300 feet at the northwest end and 2,200 feet at the southeast end, resulting in protection of rim-to-rim topography. As shown in Figure 5-3, the corridor ranges from approximately 1,600 feet wide to almost 2,600 feet wide where it passes through the Project Area. To the west of the project area, corridor R1 passes through public lands owned by USFWS much of the way to Sweetwater Reservoir (Figure 5-3). The Ogden corridor study states that the L4 corridor is 500 to 700 feet wide (Ogden 1992b). As L4 passes through the western portion of development, the corridor is 800 to 900 feet wide. As the corridor passes across Proctor Valley Road at the northern end of the Project Area, the corridor ranges from 1,600 to 3,000 feet. In addition, where necessary and as required by Policy 4.1 of the Otay Ranch RMP, wildlife crossings would be constructed along Proctor Valley Road and the access road to a residential area (R12) (Figures 4-5, 4-6, and 4-7). Therefore, with compliance with the Otay Ranch RMP and MSCP Plan, impacts to the width of wildlife corridors would be **less than significant**.

9.2.6 Project Effects Relevant to Guideline 4.4.F (Visual Continuity within Wildlife Corridors)

The Proposed Project Preserve would be located within the originally designated Otay Ranch RMP Preserve, would therefore retain the functions and values of the corridors identified in the wildlife corridor study (Ogden 1992b) and the BRCAs identified in the Final MSCP (MSCP 1998). As described in the Otay Ranch RMP, revisions to the originally designated development for Proctor Valley were specifically made, as a part of the original Otay Ranch GDP/SRP approval in 1993, to resolve general Preserve design and wildlife habitat connectivity issues (see Section 5.5.1.2). Therefore, with compliance with the Otay Ranch RMP and MSCP Plan, the Proposed Project's impacts on visual continuity within wildlife corridors would be less than significant.

9.3 Cumulative Impact Analysis

The Proposed Project is anticipated to have a less than cumulatively considerable effect on wildlife corridors and habitat linkages. As described throughout this section, the Project Area functions as part of a large habitat block. The Development Footprint is located within the originally designated developable lands as identified in the Otay Ranch RMP, and would, therefore, retain the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992b) and the BRCAs identified in the MSCP Plan. Additionally, in conformance with the Otay Ranch GDP/SRP and Otay Ranch RMP, wildlife crossings would be provided under Proctor Valley Road South and Central to allow for wildlife movement. Therefore, the Proposed Project would have a less than cumulatively considerable impact on wildlife movement between the Jamul Mountains and San Miguel Mountain.

9.4 Mitigation Measures and Design Considerations

Based on the analysis provided in Section 5.5 and throughout this section, the Proposed Project would not have direct impacts to habitat linkages or movement corridors; therefore, no mitigation is required. However, wildlife movement through these corridors may be indirectly impacted by adjacent development (**Impacts WLC-2** and **WLC-3**). Mitigation for short-term, direct impacts to potential foraging and breeding habitat includes **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-5** (permanent fencing and signage), **M-BI-18** (noise), and **M-BI-20** (lighting).

9.5 Conclusions

Impact WLC-1: Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors

The significant temporary direct impacts to potential foraging and breeding/nesting habitat for species that use the Project Area (e.g., special-status birds) would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** temporary construction fencing), and **M-BI-12** (restoration of temporary impacts).

Impact WLC-2: Temporary Indirect Impacts to Habitat Connectivity and Wildlife Corridors

The significant temporary indirect impacts to habitat connectivity and wildlife corridors would be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-18** (noise), and **M-BI-20** (lighting).

Impact WLC-3: Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors

The significant permanent indirect impacts to habitat connectivity and wildlife corridors would be reduced to less than significant through implementation of **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), **M-BI-5** (permanent fencing and signage), **M-BI-18** (noise), and **M-BI-20** (lighting). As a condition of the RMP, an open space easement will be placed over non-graded LDA which will provide for additional habitat preservation.

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10 LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

10.1 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 4.5: 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% habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.

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

C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the 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 Communities Conservation Planning Process (NCCP) 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 Communities Conservation Planning Process (NCCP) 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).

10.2 Analysis of Project Effects

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

The Project Area is located within the MSCP County Subarea Plan area; therefore, this guideline does not apply.

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

The Proposed Project would be in conformance with regional and subregional planning documents. The Development Footprint within Village 14 and Planning Areas 16/19 is consistent with the Otay Ranch GDP/SRP in that development would only occur within designated areas and impacts to the Otay Ranch RMP Preserve would be limited to access roads and improvements to Proctor Valley Road. Development of the Proposed Project would not occur within areas that have been identified by the County, Wildlife Agencies, or Resource Agencies as critical to future habitat Preserves. The realignment of and improvements to Proctor Valley Road and construction of access roads within Planning Areas 16/19 would conform to the goals and requirements of the applicable planning documents, as discussed in County Guideline 4.5.E.

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

The Otay Ranch RMP is intended to be the functional equivalent of the County of San Diego RPO (County of San Diego 2007) for Otay Ranch, and is a component of the MSCP County

Subarea Plan. As such, subsequent Otay Ranch projects are exempt from the provisions of the RPO if determined to be consistent with a Comprehensive Resource Management and Protection Program; therefore, this guideline does not apply to the Proposed Project.

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

The Proposed Project is located within Otay Ranch and, therefore, is not subject to compliance with Section 4.3 of the NCCP Guidelines. Instead, as discussed further in Section 10.2.5, the Otay Ranch RMP includes conveyance procedures for dedicating parcels of land to the Otay Ranch RMP Preserve. Conveyance is not based on habitat type but on total developable land.

The Proposed Project would result in the permanent loss of 413.8 acres of coastal sage scrub, which includes off-site impacts, and would preserve through conveyance 264.2 acres (which includes temporarily restored areas within the Otay Ranch RMP Preserve). An additional 45.2 acres would be designated as Conserved Open Space, and non-graded LDA would contain 60.3 acres of coastal sage scrub. Therefore, the Proposed Project would result in the preservation of 369.7 acres of coastal sage scrub. In addition, 350.1 acres of off-site conveyance would be required for Proposed Project impacts, and it is anticipated that this off-site conveyance would preserve other areas of coastal sage scrub habitat.

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

The Proposed Project conforms with the goals and requirements outlined in the MSCP Plan, MSCP County Subarea Plan, Otay Ranch RMP, City of San Diego's MSCP Subarea Plan, and City of Chula Vista MSCP Subarea Plan, as described in detail below.

10.2.5.1 MSCP Plan and the MSCP County Subarea Plan

The Proposed Project is located within the boundaries of the MSCP Plan. The MSCP is a multi-jurisdictional habitat conservation planning program that involves USFWS, CDFW, the County of San Diego, the City of San Diego, the City of Chula Vista, and other local jurisdictions and special districts. A total of 85 plant and animal species are "covered" by the MSCP Plan (Table 3-4a of the MSCP Plan (MSCP 1998)). With approval of each subarea plan and corresponding implementing agreement, each participating local jurisdiction received permits to directly impact or "take" MSCP Covered Species. The Covered Species include species listed as endangered or threatened by FESA or CESA, as well as unlisted species. Table 3-5 in the MSCP Plan (MSCP 1998) includes specific conditions required for take authorizations.

To confirm the Proposed Project's consistency with the MSCP County Subarea Plan, Dudek reviewed the sections in the Otay Ranch RMP, the MSCP County Subarea Plan, and Implementing

Agreement as they relate to the Otay Ranch RMP Preserve. Dudek then compared the areas of designated Otay Ranch RMP Preserve for Village 14 and Planning Areas 16/19 with the Preserve acreage of the Proposed Project. Dudek determined that the designated areas of Otay Ranch RMP Preserve within the Project Area are exactly the same as what was identified in the Otay Ranch GDP/SRP and incorporated into the Otay Ranch RMP, the MSCP Plan, and the MSCP County Subarea Plan and Implementing Agreement. Further, the applicant has not requested—and does not need—an MSCP Preserve boundary adjustment. This is because the Proposed Project would not encroach into the MSCP Preserve; instead, the Proposed Project respects the Preserve boundary that was created by the MSCP Plan and the MSCP County Subarea Plan.

Given that the Proposed Project is consistent with the MSCP Plan Implementing Agreement and Otay Ranch RMP and their "hardline" preserve assumptions, the Proposed Project can be implemented consistent with the habitat loss findings set forth in Table 3-5 of the MSCP.

10.2.5.2 County of San Diego Biological Mitigation Ordinance

As stated in Section 2.3.3, the Proposed Project would maintain the originally approved "hardline" Preserve for Village 14 and Planning Areas 16/19. As such, the Proposed Project would conform to the overall goals and requirements of the MSCP County Subarea Plan.

The County has confirmed that the Proposed Project is are located within the MSCP County Subarea Plan area as set forth in Attachment A (Document No. 0769999 on file with the Clerk of the Board) of the BMO (County of San Diego 2010c). However, three parcels—commonly referred to as PV1, PV2, and PV3—are not exempt from the BMO, specifically as set forth in Section 86.503(a)(4), Attachment B of the BMO (Document No. 0769999 on file with the Clerk of the Board). The Otay Ranch GDP/SRP designates the three parcels for development as Low Density Residential (L) and Low Medium Village Density Residential (LMV). There is no Open Space (OS) designation on any of the three parcels. The County has requested that the project analyze whether the proposed development on PV1, PV2 and PV3 has been designed to avoid or minimize impacts to species and habitat consistent with the BMO. The BMO analysis and consistency findings report ("BMO Findings Report"), are attached hereto as Appendix A.

The County is seeking take authorization for PV1, PV2 and PV3 through the County MSCP Subarea Plan and the County's existing Section 10(a) permit. To accomplish this goal, the County must make findings demonstrating that PV1, PV2 and PV3 conforms to the BMO criteria. In certain cases where it may be infeasible for a project to meet all the goals and criteria of the BMO, the County may grant an exception to the specific requirements of the BMO (BMO, § 86.509(b); MSCP Implementing Agreement, §10.13.). Such an exception requires concurrence

of the United States Fish and Wildlife Service and the California Department of Fish and Wildlife (collectively, the Wildlife Agencies).[17]

In general, the BMO requires that the County make findings to determine whether a proposed development would negatively impact the functionality of the existing MSCP Preserve. Such is the case with regard to PV1, PV2, and PV3. Specifically, the BMO analysis attached hereto supports the findings that development of PV1, PV2, and PV3 would not jeopardize the assembly of the Preserve system within the MSCP County Subarea Plan area for the following reasons: the 11,375-acre Otay Ranch RMP Preserve footprint would not be changed; the Preserve Edge Plan provides for a buffer between the Otay Ranch RMP Preserve and development in PV1, PV2, and PV3 (RH Consulting et al. 2017); the Otay Ranch RMP requires that impacts resulting from development of PV1, PV2, and PV3 be mitigated by conveying habitat to the Otay Ranch RMP Preserve, along with providing funding for management and maintenance of the Otay Ranch RMP Preserve; and an additional 20.1 acres of Conserved Open Space would be preserved on site and could be added to the Otay Ranch RMP Preserve.

Table 1 of the BMO consistency findings report quantifies the sensitive vegetation impacts anticipated with proposed development of PV1, PV2, and PV3, and also describes the required mitigation for those impacts (see Appendix A). This same information is replicated below in Table 10-1, Mitigation Requirements for Impacts to Tier II and III Habitats. As shown in Table 10-1, development of PV1-3 would result in impacts to 173.5 acres of sensitive upland species and 0.39 acres of jurisdictional resources consisting of unvegetated channels. Approximately 228.1 acres of mitigation is required for impacts to 173.5 acres of sensitive upland vegetation. Conveyance of land to the Otay Ranch RMP Preserve within the Project Area, and preservation of areas otherwise designated as development would cover the mitigation required by the BMO analysis. The loss of 0.39 acres of unvegetated stream channels would be mitigated at a minimum 1:1 replacement-to-impact ratio, and the Proposed Project would be required to obtain the required ACOE, RWQCB, and CDFW permits.

[17] However, if the County cannot make the necessary BMO findings and/or the Wildlife Agencies do not concur with the County, the Applicant may seek take authorization directly from one or both of the Wildlife Agencies pursuant to the federal Endangered Species Act and/or the California Endangered Species Act. The MSCP, the County MSCP Subarea Plan, and the IA acknowledge this alternative process of securing take authorization.

Table 10-1
Mitigation Requirements for Impacts to Tier II and III Habitats

Habitat Types/Vegetation Communities	Code[a]	Impacts PV1, PV2, and PV3	Required Mitigation – BRCA		Mitigation	
			Mitigation Ratio	*Required Mitigation*	*On-Site PV1, PV2, and PV3 (Conserved Open Space)*	*Otay Ranch RMP Preserve*[b]
Tier II						
Diegan coastal sage scrub	32500	76.2	1.5:1	114.3	18.2	102.3
Diegan coastal sage scrub (disturbed)	32500	33.0	1.5:1	49.5	—	43.3
Subtotal of Tier II Habitats		*109.2*	—	*163.8*	*18.2*	*145.6*
Tier III						
Granitic chamise chaparral	37210	62.7	1:1	62.7	1.9	60.8
Granitic chamise chaparral (disturbed)	37210	0.8	1:1	0.8	—	0.8
Non-native grassland	42200	0.8	1:1	0.8	—	0.8
Subtotal of Tier III Habitats		*64.3*	—	*64.3*	*1.9*	*62.4*
Total for Tier II and II Habitats[c]		**173.5**	**—**	**228.1**	**20.1**	**208.0**
Jurisdictional Aquatic Resources						
Unvegetated channel[d]	64200	0.39	1:1	0.39	0.06	0.33
Subtotal of Jurisdictional Aquatic Resources[c]		0.39	—	0.39	0.06	0.33

BRCA = Biological Resource Code Area; RMP = Resource Management Plan

[a] Oberbauer et al. 2008.

[b] The Otay Ranch RMP Preserve is a component of the MSCP Preserve.

[c] May not total due to rounding.

[d] Unvegetated channel is an overlay within various vegetation communities and is, therefore, not counted in the total.

Impacts to sensitive wildlife would be mitigated through habitat conveyance; however, the Proposed Project would also implements specific mitigation measures to address impacts to coastal California gnatcatcher (see Section 6.2.1). Impacts to sensitive plant species would be mitigated through habitat conveyance; however, in accordance with the BMO, the Proposed Project would implement additional mitigation to address impacts to San Diego goldenstar, variegated dudleya, San Diego barrel cactus, Robinson's pepper-grass, and San Diego marsh-elder. Existing populations of San Diego goldenstar, variegated dudleya and San Diego barrel cactus would be translocated to a suitable receptor site within the Otay Ranch RMP Preserve or Conserved Open Space in the Project Area. This would result in no loss of these populations. In addition to translocation of existing populations, additional plants would be installed at a receptor site to achieve a 2:1 population within the Otay Ranch RMP Preserve for barrel cactus and a 3:1 population for San Diego goldenstar and variegated dudleya. Per M-BI-11, a Biological Resource Salvage Plan would be prepared that will, at a minimum, evaluate options for plant

salvage and relocation, including individual plant salvage and additional plantings, native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the Otay Ranch RMP Preserve or Conserved Open Space. The translocation of existing populations and additional plantings would result in a no-net-loss of these species.

Mitigation for Robinson's pepper-grass and San Diego marsh-elder would include preservation of populations within the Otay Ranch RMP Preserve and may include preservation of off-site populations of the species should they occur within the off-site preservation required for the Proposed Project, incorporation of these species within a temporary restoration plan (M-BI-12), restoration of disturbed areas within the Otay Ranch RMP Preserve, or incorporation into a conceptual wetlands mitigation plan (applies to mitigation for San Diego marsh-elder only).

Therefore, with implementation of the above mitigation, the proposed development within PV1, PV2, and PV3 would be in compliance with the requirements and measures set forth in the BMO.

10.2.5.3 MSCP County Subarea Plan – Roads

Within the MSCP County Subarea Plan, a project that results in take of Covered Species from construction of new or modification of existing Circulation Element road corridors is required to complete a consistency analysis, as outlined in Section 1.9.3.2 of the MSCP County Subarea Plan.

New and Existing Roads within the Lake Hodges and MSCP County South Segments

Per Section 1.9.3.2 of the MSCP County Subarea Plan (County of San Diego 1997), take of Covered Species from construction of new or modification of existing road corridors (within all segments of the MSCP County Subarea Plan area) that are identified on the County's circulation element road map dated September 17, 1997 (GPA 97-CE), is based on the County making findings for the Proposed Project. Even though improvements to Proctor Valley Road Central and North would occur within the jurisdiction of the MSCP County Subarea Plan (land is currently owned by CDFW), the Proposed Project is located within Otay Ranch and is therefore subject to the requirements of the Otay Ranch RMP. Nonetheless, the consistency analysis provided in Table 10-2 is based on bullet points A through F outlined in Section 1.9.3.2 of the MSCP County Subarea Plan (County of San Diego 1997), along with the above-noted requirements.

Table 10-2
Improvements to Proctor Valley Road MSCP County Subarea Plan Consistency Analysis

County of San Diego Requirements*	Consistency Analysis
The project is consistent with adopted community or subregional plans, and the MSCP and MSCP County Subarea Plan.	As demonstrated within this analysis, the Proctor Valley Road Central and North alignment is consistent with the MSCP County Subarea Plan and the Otay Ranch RMP siting criteria, as well as the adopted County General Plan and Jamul/Dulzura Community Plan. Proctor Valley Road is an allowable use within the MSCP Preserve.
All feasible mitigation measures have been incorporated into the project and there are no feasible, less environmentally damaging locations, alignments or non-structural alternatives that would meet project objectives.	Improvements to Proctor Valley Road North would follow the current road alignment and were designed to stay within the existing footprint to the extent feasible. Proctor Valley Road Central would be realigned to the east. Proctor Valley Road has been designed to coincide with the existing alignment to the extent feasible as a two-lane Mobility Element road. The road was previously designated in the Otay Ranch GDP/SRP as four-lane major road from Chula Vista to State Route 94, and thus would have resulted in additional impacts to sensitive resources. Permanent impacts associated with the road would total 8.5 acres, of which 6.8 acres would be to sensitive upland habitats and 0.02 acres would be to jurisdictional aquatic resources. Permanent impacts would be mitigated through conveyance of Otay Ranch RMP Preserve acreage to the POM (**M-BI-3**). Temporary impacts to 19.2 acres of sensitive upland habitat and 0.04 acres of jurisdictional aquatic resources would be revegetated with native habitat (**M-BI-12**). In addition, the County is considering widening portions of Proctor Valley Road North to accommodate two bike lanes. This would result in 0.5 acres of additional impacts to sensitive vegetation communities (0.2 acres of impacts to granitic chamise chaparral, 0.2 acres of impact to coastal sage scrub, and 0.1 acres of impact to non-native grassland).
Where the project encroaches into a wetland or floodplain, mitigation measures have been incorporated into the project that result in a net gain in wetland and/or riparian habitat.	Proctor Valley Road Central and North would impact 0.06 acres of wetland/riparian habitat (0.02 acres of permanent impacts and 0.04 acres of temporary impacts) (**Impacts V-9** and **V-10**). Mitigation measures **M-BI-12** (restoration of temporary impacts) and **M-BI-21** (federal and state agency permits) described in Section 7.4 and would mitigate for these impacts through restoring temporarily impacted resources to pre-project conditions, and coordinating with federal and state agencies to obtain the appropriate permits and approval for impacts to jurisdictional aquatic resources. The overall ratio of wetland/riparian habitat mitigation would be 3:1, thus resulting in a net gain of these resources.
Where the project encroaches into steep slopes, native vegetation will be used to revegetate and landscape cut and fill areas.	Improvement of Proctor Valley Road Central and North would not result in impacts to steep slopes.
No mature riparian woodland will be destroyed or reduced in size due to otherwise allowed encroachments.	Proctor Valley Road Central and North would not result in impacts to mature riparian woodland.
All Critical Populations of Sensitive Plant Species within the MSCP County Subarea (Attachment C of BMO), Rare Narrow Endemic Animal Species within the County Subarea (Attachment D of BMO), Narrow Endemic Plant Species within the County	Requirements of the BMO are not applicable to Proctor Valley Road Central and North, which fall under the purview of the Otay Ranch RMP. Improvements associated with Proctor Valley Road Central and North would result in impacts to four individuals of San Diego marsh-elder and 36 individuals of Munz's sage. The road improvements would not impact

Table 10-2
Improvements to Proctor Valley Road MSCP County Subarea Plan Consistency Analysis

County of San Diego Requirements*	Consistency Analysis
Subarea (Attachment E of BMO), and San Diego County Sensitive Plant Species (as defined in the BMO), will be avoided as required and consistent with the MSCP County Subarea Plan and BMO.	any rare narrow endemic animal species. The alignment was revised to avoid impacts to a vernal pool containing San Diego fairy shrimp.

* **Source:** County of San Diego 1997

In addition to the improvements to Proctor Valley Road, there would be three connector roads within Planning Area 16 within Otay Ranch lands now owned by CDFW. The underlying Otay Ranch Land Use designations for these areas are development and LDA. Impacts stemming from construction of these new roads would total 15.8 acres to coastal sage scrub and southern mixed chaparral, of which 9.1 acres would be permanent impacts. The temporary impacts would be restored in accordance with **M-BI-12**, and the permanent impacts would be mitigated through conveyance of land to the POM (M-BI-3). These roads are allowable uses in the MSCP Preserve per Section 1.9.3.3 of the MSCP County Subarea Plan (County of San Diego 1997) (see Section 1.2 of this report).

10.2.5.4 Otay Ranch Resource Management Plan

The Otay Ranch RMP and the Otay Ranch RMP Preserve serve as the basis for CEQA mitigation of biological impacts identified in the Otay Ranch PEIR (City of Chula Vista and County of San Diego 1993c). The Otay Ranch RMP includes conveyance procedures for dedicating parcels of land to the Otay Ranch RMP Preserve. The Otay Ranch RMP establishes an obligation for each new development to convey its fair-share of the Preserve. Fair-share contribution requirements are established in the Otay Ranch RMP as a proportion of Ranch-wide development to Ranch-wide Preserve land. The Otay Ranch RMP established a fair-share contribution to the creation of the Preserve as a ratio of 1.188 acres of Preserve conveyance required for every 1 acre of development (City of Chula Vista and County of San Diego 1993b). Accordingly, the conveyance ratio for all development is 1.188 acres for each 1 acre of the Proposed Project Development Footprint, excluding areas that include "common uses," such as schools, parks, and arterial roadways. Per the Otay Ranch RMP, these "common use" areas are excluded from the required mitigation/conveyance. In addition, the Otay Ranch RMP does not require the conveyance of LDA. The Otay Ranch RMP Phase II states the following: "It would be unreasonable to require the conveyance of land to the resource Preserve, upon the subdivision of LDAs (private open space) into private lots" (City of Chula Vista and County of San Diego 1996). The Otay Ranch RMP was incorporated into the County of San Diego's MSCP Subarea Plan. A project's compliance with the Otay Ranch RMP constitutes its compliance with the

MSCP County Subarea Plan. These Preserve lands would be dedicated to the POM, which manages the Otay Ranch "Conveyed Preserve" lands.

Common uses not subject to conveyance for the Proposed Project would include 15.2 acres of public parks, the 9.7-acre elementary school, 12.8 acres of major circulation, and the 2.3-acre public safety site. In addition, Planning Area 16 contains 127.1 acres of LDA that is not subject to conveyance. Areas of Conserved Open Space are also excluded from the conveyance total (72.4 acres). Total Proposed Project impacts, less these common areas, Conserved Open Space, and LDA, would be 644.8 acres. An additional 9.1 acre of off-site impacts will be mitigated through conveyance to the Otay Ranch RMP Preserve. Thus, the overall number of developable acres within the Project Area subject to the Otay Ranch RMP Preserve conveyance ratio of 1.188 would be 653.9 acres.[18] Therefore, developable land within the Project Area is subject to a conveyance obligation of 776.8 acres (653.9 acres × 1.188 = 776.8 acres). This obligation would be partially satisfied through on-site conveyance of the Otay Ranch RMP Preserve, which totals 426.7 acres. The remaining 350.1 acres of conveyance needs would be met through off-site acquisitions of Otay Ranch RMP Preserve. The Otay Ranch RMP does not require that conveyance of Preserve land occur within the Specific Plan boundaries (i.e., Project Area), since it is a Ranch-wide obligation, and the Otay Ranch RMP allows for conveyance of land anywhere within the Otay Ranch RMP Preserve. Approximately 72.4 acres of Conserved Open Space have been identified as additional land to be used as mitigation for Proposed Project impacts (**M-BI-4**). This acreages is excluded from the conveyance calculation.

In summary, the Otay Ranch RMP conveyance obligation is the required fair-share mitigation based on the Otay Ranch RMP and the MSCP Plan. The total acreage of the Proctor Valley Preserve is a function of the boundaries of the Project Area. Upon conveyance of 776.8 acres to the Otay Ranch RMP Preserve, the Proposed Project would be consistent with the Otay Ranch RMP conveyance requirement.

The Proposed Project would also result in impacts to Otay Ranch RMP Preserve within Village 14 and Planning Area 16 as a result of improvements and realignment of Proctor Valley Road, and development of a connector road between Central Village 14 development and Proctor Valley Road. According to Policy 6.6 of the Otay Ranch RMP, infrastructure (i.e., roads) is an allowable use within the Preserve. Figure 14 of the Otay Ranch RMP shows the conceptual location of Proctor Valley Road (City of Chula Vista and County of San Diego 1993b).

[18] Village 14 = 374.4 acres; Planning Areas 16/19 = 270.4 acres; Planning Areas 16/19 roads within CDFW lands = 9.1 acres.

The Otay Ranch RMP also established required preservation ratios for the entire Otay Ranch resources. Chapter 8, Jurisdictional Wetlands and Waterways, of this report describes how additional mitigation ratios are required to mitigate for impacts to jurisdictional resources. In combination with the greater Otay Ranch RMP Preserve, these measures would achieve conservation requirements. Based on the Proposed Project and cumulative Otay Ranch conservation of selected species, the Proposed Project is consistent with the requirements of the Otay Ranch RMP.

10.2.5.5 City of San Diego MSCP Subarea Plan – Cornerstone Lands

The City of San Diego's Cornerstone Lands are also located within the City of San Diego's MHPA. As an essential public project (described in Section 2.4.1 of the MSCP City of San Diego Subarea Plan), the Proctor Valley Road improvements would require mitigation for impacts within the MHPA Preserve. As shown in Table 7-1, direct impacts to City of San Diego Cornerstone Lands as a result of the realignment and widening of Proctor Valley Road South and Central would total 33.7 acres, of which 11.3 acres would be permanent impacts that require mitigation (Table 7-1). Temporary impacts would total 22.6 acres and would be restored upon Proposed Project completion. Based on the Proposed Project design and associated mitigation, the Proposed Project is consistent with the requirements of the City of San Diego MSCP Subarea Plan and Land Development Code Biology Guidelines (City of San Diego 2012) (see Table 10-3).

In addition, placement of roads within the City of San Diego's MHPA must be in compliance with the policies identified in Section 1.4.2 of the City of San Diego's MSCP Subarea Plan (see Table 10-3). These policies are listed below (City of San Diego 1997):

- All proposed utility lines (e.g., sewer, water) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way and disturbed areas, minimizing habitat fragmentation.
- All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP Covered Species, and wetlands. If avoidance is infeasible, mitigation will be required.
- Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If

temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.

- Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage. Environmental documents and mitigation monitoring and reporting programs covering such development must clearly specify how this will be achieved, and construction plans must contain all the pertinent information and be readily available to crews in the field. Training of construction crews and field workers must be conducted to ensure that all conditions are met. A responsible party must be specified.
- Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/ emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.
- Development of roads in canyon bottoms should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road must be designed to cross the shortest length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable. Fencing, grading and plant cover should be provided where needed to protect and shield animals, and guide them away from roads to appropriate crossings.
- Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.
- For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management Section 1.5.

Table 10-3
Summary of Siting Criteria for City of San Diego
Off-Site Portion of Proctor Valley Road and Associated Utilities

Siting Criteria*	Analysis
Minimize intrusion into the MHPA	Proctor Valley Road has been designed to coincide with the existing alignment to the extent feasible as a two-lane Mobility Element road. Portions of the road were previously designated in the Otay Ranch GDP/SRP as four lanes and, thus, would have resulted in additional impacts to sensitive resources. Temporary impacts to the existing road would be restored as part of the revegetation plan, and as such would result in the conversion of 1.1 acres of existing road to native vegetation. In addition, realignment of Proctor Valley Road South would result in 4.7 acres of the existing road to be abandoned in place.
Minimize environmental impacts (avoid MSCP Covered Species and wetlands)	Proctor Valley Road has been reduced from a four-lane to a two-lane road, thus minimizing impacts to the extent feasible while meeting requirements for improvement. Impacts to jurisdictional aquatic resources (e.g., wetlands) would include permanent and temporary impacts to mule fat scrub (<0.1 and 0.2 acres) and unvegetated stream channel (0.04 acres and 0.25 acres) (Impact V-10). Widening the road to four lanes would result in an increase of impacts to those resources. Approximately 0.3 miles of the road between South Village 14 and Central Village 14 would be realigned to the east to provide a 100-foot buffer from the watershed of all vernal pools that are located in the City of San Diego Cornerstone Lands. Improvements to the road would result in 11.4 acres of temporary and 7 acres of permanent impacts to coastal sage scrub and associated subtypes, which is suitable habitat for coastal California gnatcatcher (Impacts W-1 and W-2). The temporary impacts would be restored to pre-project conditions, and mitigation for the permanent impacts would be replacement in kind, resulting in no net loss of habitat for this species.
Avoid disturbance of existing habitat	Improvements and realignment of Proctor Valley Road would result in impacts to sensitive vegetation (Impact V-3) and non-sensitive land covers. Of the 33.7 acres of impact, 20.6 acres of temporary and 10.6 acres of permanent impacts would be to sensitive upland communities, 0.4 acres would be to jurisdictional aquatic resources (0.3 acres temporary), and 2.4 acres would be to non-sensitive communities (1.5 acres temporary and 0.9 acres permanent) (Impact V-3). Temporary impacts would be restored by planting native vegetation (M-BI-12). The remaining 11.3 acres of permanent impacts would be mitigated per the mitigation ratios identified in Table 7-1 (M-BI-20). By reducing the alignment from four to two lanes, additional impacts to existing habitat would be avoided.
Avoid significant disruption of corridor usage	This portion Proctor Valley Road is not located within a wildlife corridor, but it does run parallel to an existing wildlife corridor (Figure 4-5). The road would cross over Linkage 4 just north of the current alignment. Construction of the road would result in temporary impacts to the linkage during construction (Impact WLC-1). This temporary impact would be mitigated through the following measures: M-BI-1 (biological monitoring), M-BI-2 (temporary construction fencing), and M-BI-12 (restoration of temporary impacts). Additionally, in conformance with the Otay Ranch GDP/SRP and Otay Ranch RMP, a wildlife crossings would be provided under Proctor Valley Road to allow for wildlife movement through natural topography. Therefore, improvements and realignment of the road would not result in a significant disruption of corridor use. As described in the Otay Ranch RMP, revisions to the Proctor Valley Development Footprint were specifically made, as a part of the original Otay Ranch GDP/SRP approval in 1993, to resolve general Otay Ranch RMP Preserve design and wildlife habitat connectivity issues, including development reductions to widen corridors and to avoid encroachments. As a result, the Proctor Valley regional wildlife corridor was designed to become an extensive

Table 10-3
Summary of Siting Criteria for City of San Diego
Off-Site Portion of Proctor Valley Road and Associated Utilities

Siting Criteria*	Analysis
	linkage, with a required minimum width of 1,300 feet at the northwest end to 2,200 feet at the southeast end, resulting in protection of rim-to-rim topography.
Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/ emergency access roads	The City of San Diego MSCP Subarea Plan excludes certain utilities and public facilities from the MHPA within Cornerstone Lands, including Proctor Valley Road. As such, construction of Proctor Valley Road within the MHPA Preserve system "is not precluded based on the City's Cornerstone Lands Conservation Bank Agreement" (City of San Diego 1997).
Avoid development of roads in canyon bottoms	The Proposed Project would include realignment and improvements to an existing road. Proctor Valley Road is not located within a canyon bottom.
Road widths are narrowed and in lower quality habitat	Proctor Valley Road provides the main access to Proctor Valley Village 14 and is currently a two-lane road from the Chula Vista city limits to State Route 94. This portion of the road would be improved within its existing alignment to a two-lane-with-median light collector with a width ranging from 68 to 74 feet. A construction easement, including 20 feet of fuel modification, would flank each side of the roadway. Additional infrastructure would be included within the easement, including a sewer, water and dry-utility extension, and the Proctor Valley Regional Pathway.
Maintenance of existing roads	The Proposed Project would not include maintenance of existing roads.

* City of San Diego 1997

10.2.5.6 City of Chula Vista MSCP Subarea Plan

A portion of the Proctor Valley Road improvements (1,200 feet) would be located within the City of Chula Vista MSCP Subarea Plan and City of Chula Vista city limits. This City of Chula Vista MSCP Subarea Plan includes specific provisions for projects subject to City of Chula Vista jurisdiction, as described in Section 2.4.2 of this report. However, this portion of Proctor Valley Road is defined as the "easternmost reach" of the Rolling Hills Ranch (also known as Salt Creek Ranch) project, which is a Covered Project, with hardlines in the City of Chula Vista's MSCP Subarea Plan area. As described in Section 2.4.2 of this report, impacts associated with this reach of Proctor Valley Road were analyzed as part of the Rolling Hills Ranch project's CEQA analyses. An easement to accommodate the future alignment of Proctor Valley Road's easternmost reach was granted per the City of Chula Vista's Final Map 14756A. Through this easement agreement, impacts to certain resources, including non-wetland MSCP Covered Species, do not require further mitigation (see Appendix B).

The off-site impact areas within the City of Chula Vista do not conflict with the goals or standards of the City of Chula Vista's MSCP Subarea Plan, since the impacts would be for the

road improvement. The placement of this facility is analyzed as part of the siting criteria, discussed below.

The following is a summary of the Facilities Siting Criteria (Section 6.3.3.4 and Table 6-1 of the City of Chula Vista's MSCP Subarea Plan) as required for the Proposed Project's planned and future facilities (City of Chula Vista 2003):

1. Such facilities will be located in the least environmentally sensitive location feasible, and use existing roads, trails and other disturbed areas, including use of the active recreation areas in the Otay River Valley, as much as possible (except where such areas are occupied by the Quino checkerspot butterfly (*Euphydryas editha quino*)). Facilities should be routed through developed or developing areas where possible. If no other routing is feasible, alignments should follow previously existing roads, easements, rights of way, and disturbed areas, minimizing habitat fragmentation.
2. Such facilities shall avoid, to the maximum extent practicable, impacts to Covered Species and Wetlands, and will be subject to the provisions, limits, and mitigation requirements for Narrow Endemic Species and Wetlands pursuant to Section 5.2.3 and 5.2.4 of the [City of Chula Vista's MSCP] Subarea Plan.
3. Where roads cross the Preserve, they should provide for wildlife movement in areas that are graphically depicted on and listed in the MSCP Subregional Plan Generalized Core Biological Resource Areas and Linkages map as a core biological area or a regional linkage between core biological areas. All roads crossing the Preserve should be designed to result in the least impact feasible to Covered Species and Wetlands. Where possible at wildlife crossings, road bridges for vehicular traffic rather than tunnels for wildlife use will be employed. Culverts will only be used when they can achieve the wildlife crossing/movement goals for a specific location. To the extent feasible, crossings will be designed as follows: the substrate will be left in a natural condition or revegetated if soils engineering requirements force subsurface excavation and vegetated with native vegetation if possible; a line-of-sight to the other end will be provided; and if necessary, low-level illumination will be installed in the tunnel.
4. To minimize habitat disruption, habitat fragmentation, impediments to wildlife movement and impact to breeding areas, road and/or right-of-way (ROW) width shall be narrowed from existing City design and engineering standards, to the maximum extent practicable. In addition, roads shall be located in lower quality habitat or disturbed areas to the maximum extent practicable.
5. Impacts to Covered Species and habitats within the Preserve resulting from construction of Future Facilities will be evaluated by the City during project review and permitting. The City

may authorize Take for impacts to Covered Species and habitats resulting from construction of Future Facilities located outside the Preserve, pursuant to the [City of Chula Vista's MSCP] Subarea Plan and consistent with the Facility Siting Criteria in this section.

6. The City may authorize "Take" for impacts to Covered Species resulting from construction of Future Facilities located within the Preserve, subject to a limitation of 2 acres of impact for individual projects and a cumulative total of 50 acres for all Future Facilities. Wildlife Agency concurrence will be required for authorization of Take for any impacts to Covered Species and habitat within the Preserve that exceed 2 acres that may result from construction of any individual Future Facility. Wildlife Agency concurrence will be required for authorization of Take for impacts to Covered Species and habitat within the Preserve that exceed 50 acres that may result from all Future Facilities combined.
7. Planned and Future Facilities must avoid impacts to Covered Narrow Endemic Species[19] and the Quino checkerspot to the maximum extent practicable. When such impacts cannot be avoided, Planned and Future facilities located within the Preserve are subject to the provisions of Section 5.2.3.6 of the [City of Chula Vista's MSCP] Subarea Plan. Impacts to Quino checkerspot that will result from construction of Planned and Future Facilities within the Preserve are subject to the provisions of Section 5.2.8 of the [City of Chula Vista's MSCP] Subarea Plan.

Facility Siting Criteria (City of Chula Vista)

This section outlines the planned facilities associated with the Proposed Project and how they adhere to the Facilities Siting Criteria contained in the Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Proctor Valley Road is identified in the City of Chula Vista MSCP Subarea Plan as a "planned facility" and is located in an MSCP Preserve area. The proposed Proctor Valley Road would provide the main access to Village 14 and is currently a two-lane road (within an approximately 60-foot-wide ROW) from the Chula Vista city limits to State Route 94. Most of the alignment is outside of the City of Chula Vista and not within the Preserve, and therefore, not subject to the Facilities Siting Criteria. Approximately 0.25 miles of the southernmost portion of the road is located within the City of Chula Vista. This portion of Proctor Valley Road would be improved within its existing alignment and reduced to a two-lane-with-median light collector with a width ranging from 68 to 74 feet. A construction easement, including 20 feet of fuel modification, would flank each side of the roadway. Additional

[19] The City of Chula Vista's MSCP Subarea Plan defines narrow endemic species as "species that are highly restricted by their habitat affinities or other ecological factors." The full list of narrow endemic species is provided in Table 5-4 of the City of Chula Vista's MSCP Subarea Plan (City of Chula Vista 2003).

infrastructure would be included within the easement, including a sewer, water and dry-utility extension and the Proctor Valley Regional Pathway.

The existing designation as a four-lane major road would have resulted in greater impacts to sensitive vegetation communities. In its proposed two-lane design, impacts to sensitive vegetation would be limited to 2 acres of temporary and 2 acres of permanent impacts to coastal sage scrub, and 0.3 acres of temporary and 0.1 acres of permanent impacts to coastal and valley freshwater marsh, as well as 0.01 acres of both temporary and permanent impacts to mulefat scrub. The four-lane design would result in an increase of impacts to coastal sage scrub by 1.6 acres and coastal and valley freshwater marsh by 0.1 acres.

The Proctor Valley Road improvements necessary to support the Proposed Project would be sited within and immediately adjacent to the existing roadway alignment. In general, the process for designing and locating the planned facilities followed an iterative process with the Proposed Project civil engineer. The facilities were analyzed by overlaying potential planned facility locations with mapped biological resources, including vegetation communities, species locations, and jurisdictional aquatic resources. Adjustments were made to reduce impacts to sensitive resources to the greatest extent possible without compromising the integrity and purpose of each facility. In addition, facilities such as sewer, water and dry-utility extensions, and regional trails were co-located with the roadway to reduce impacts. In some cases there would be impacts to sensitive resources; however, the effects of shifting facilities to another location would have been more impactful. Clustering these facilities within the construction ROW would minimize habitat and sensitive species impacts and habitat fragmentation.

Table 10-4 provides a summary of these facilities as they relate to the siting criteria of the Chula Vista MSCP Subarea Plan.

Table 10-4
Summary of Facilities Siting Criteria for City of Chula Vista
Off-Site Portion of Proctor Valley Road and Associated Utilities

Facilities Siting Criteria*	Proctor Valley Road; Sewer, Water, and Dry Utility Extensions; and Proctor Valley Regional Pathway – Planned Facilities (3.9 acres)
Least environmentally sensitive location	Proctor Valley Road was designed to coincide with the existing alignment to the extent feasible. Portions of the road were previously designated as four lanes and, thus, would have resulted in additional impacts to sensitive resources. The four-lane design was analyzed and would result in an increase impacts to coastal sage scrub by 1.6 acres and coastal and valley freshwater marsh by 0.1 acres. Where sensitive resources occur (e.g., vernal pools), the road has been shifted to avoid those resources. Proctor Valley Road would be located adjacent to planned development and would not cause fragmentation of habitat. All facilities would be located within a single right-of-way (ROW) and include the Proctor Valley Road alignment, the sewer and storm drain, and the Proctor Valley Regional

Table 10-4
Summary of Facilities Siting Criteria for City of Chula Vista
Off-Site Portion of Proctor Valley Road and Associated Utilities

Facilities Siting Criteria*	Proctor Valley Road; Sewer, Water, and Dry Utility Extensions; and Proctor Valley Regional Pathway – Planned Facilities (3.9 acres)
	Pathway. Cross-sections of Proctor Valley Road are provided on the Tentative Map submittal for the Proposed Project. Any manufactured slopes (within the MSCP Preserve) created in conjunction with planned and future facilities would be replanted/landscape with native species.
Avoid wetlands and Covered Species and address Narrow Endemic Species	Improvements to Proctor Valley Road within the City of Chula Vista would result in permanent impacts to less than 0.01 acres of mulefat scrub and 0.1 acres of coastal and valley freshwater marsh (Impact V-10). The road has been reduced from four lanes to two lanes, thus reducing impacts to coastal and valley freshwater marsh by 0.1 acres. Shifting the alignment outside of the current ROW would result in greater impacts to jurisdictional aquatic resources adjacent to the road. Since there is freshwater habitat on both sides of the existing road, shifting the road north or south would result in impacts to jurisdictional aquatic resources.
Provide for wildlife movement	Improvements to Proctor Valley Road would primarily be in alignment with the current ROW. The road would remain a two-lane road and would not be widened. Improvements to the road would not preclude wildlife from using the area. This portion of Proctor Valley Road would not impede a major regional linkage, and culverts would not be required within the MSCP Preserve. In addition, the road would remain two lanes instead of four, allowing for continued at-grade wildlife movement through this area. Because of their co-location within a minimal-width construction ROW, these linear facilities would not impede wildlife movement.
Road widths are narrowed and in lower quality habitat	Proctor Valley Road provides the main access to Village 14 and is currently a two-lane road from the Chula Vista city limits to State Route 94. This portion of the road would be improved within its existing alignment to a two-lane-with-median light collector with a width ranging from 68 to 74 feet. A construction easement, including 20 feet of fuel modification, would flank each side of the roadway. Additional infrastructure would be included within the easement, including a sewer, water and dry utility extension, and the Proctor Valley Regional Pathway. The previous road design consisted of a four-lane road that would have increased the width of the road and result in 1.7 acres of additional impacts to sensitive vegetation communities.
Impacts for future facilities will be evaluated by the City	Not applicable – All facilities/utilities have been co-located with the planned alignment of Proctor Valley Road.
Future facilities are limited to 2 acres or cumulative total of 50 acres	Not applicable.
Avoid impacts to Covered Narrow Endemic Species and QCB [Quino checkerspot butterfly]	The proposed alignment would impact 25 Otay tarplant individuals located within the City of Chula Vista. Since this species is a narrow endemic, impacts to this species are limited to 5% of the total population within the Project Area. However, as described in Section 2.4.1, impacts associated with this reach of Proctor Valley Road were analyzed as part of the Rolling Hills Ranch project's CEQA analyses. An easement to accommodate the future alignment of Proctor Valley Road's easternmost reach was granted per the City of Chula Vista's Final Map 14756A and letter agreement between USFWS, CDFW, City of Chula Vista, and Pacific Bay Homes, dated July 19, 2001. As part of this agreement, no further mitigation for narrow endemic species or other Cover Species, including Otay tarplant, are

Table 10-4
Summary of Facilities Siting Criteria for City of Chula Vista
Off-Site Portion of Proctor Valley Road and Associated Utilities

Facilities Siting Criteria*	Proctor Valley Road; Sewer, Water, and Dry Utility Extensions; and Proctor Valley Regional Pathway – Planned Facilities (3.9 acres)
	required within this easement area (Appendix B). Therefore, direct off-site impacts to Otay tarplant (a narrow endemic species) individuals would not be considered significant. No Quino checkerspot butterflies were observed within the Project Area, including off-site areas. Therefore, this portion of the Proctor Valley Road alignment would not impact Quino checkerspot butterfly.

* **Source:** City of Chula Vista 2003

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

BMO Section 86.502, BMO Application of Regulations, states that, unless exempt, the BMO "shall apply to all land within San Diego County shown on the MSCP Boundary Map (Attachment A of Document No. 0769999 on file with the Clerk of the Board)" (County of San Diego 2010d). Section 86.503 of the BMO outlines instances when an exemption applies from the BMO requirements. Item a(4) provides an exemption for "Any Take Authorization Area approved by the Board of Supervisors and the Wildlife Agencies as part of the MSCP County Subarea Plan, as shown on Attachment B of Document No. 0769999 on file with the Clerk of the Board or any approved Habitat Loss Permit issued pursuant to 16 U.S.C. Sec. 1533(d)" (County of San Diego 2010d). Section 86.503 of the BMO, Exemptions, identifies 11 criteria for exemptions; PV1, PV2, and PV3 do not qualify for any of these exemptions. Accordingly, the BMO analysis and findings (BMO Findings Report), which is attached hereto as Appendix A, analyzes PV1, PV2, and PV3 pursuant to the requirements of the BMO.

The BMO Findings Report (Appendix A) evaluates three parcels of land within Village 14, referred to as PV1, PV2, and PV3, pursuant to the requirements of the County's BMO. PV1 is composed of approximately 18.9 acres and originally designated for "L2" development (i.e., low-density residential) under the Otay Ranch GDP/SRP. PV2 is composed of approximately 44.6 acres and originally designated for "L2" development under the Otay Ranch GDP/SRP. PV3 is composed of approximately 134.5 acres and originally designated for "LM2" and "LM3" development (i.e., low medium density residential) under the Otay Ranch GDP/SRP.

Notably, this analysis does not apply the BMO requirements to other areas of Village 14 or to any of Planning Areas 16/19, since these areas are explicitly exempt pursuant to Section 86.503(a)(4) of the BMO (County of San Diego 2010d). Although the BMO Findings Report

does reference Village 14 and Planning Areas 16/19, the discussion is only for purposes of providing context for the BMO analysis of PV1, PV2, and PV3 (Appendix A).

Based on the assessment presented in the BMO Analysis and Findings (Appendix A), it was determined that PV1, PV2, and PV3 conform to the BMO and MSCP Plan Implementing Agreement between the County of San Diego and the Wildlife Agencies. Specifically, the BMO analysis demonstrates that the specific criteria identified in the BMO can be met for PV1, PV2, and PV3. In addition, the 11,375-acre Otay Ranch RMP Preserve footprint would not be changed; the Preserve Edge Plan provides for a buffer between the Otay Ranch RMP Preserve and development in PV1, PV2, and PV3 (RH Consulting et al. 2017); impacts resulting from development of PV1, PV2, and PV3 would be mitigated by conveying habitat to the Otay Ranch RMP Preserve, along with providing funding for management and maintenance of the Otay Ranch RMP Preserve; and an additional 20.1 acres of Conserved Open Space would be preserved on site and would either be added to the Otay Ranch RMP Preserve or managed under a separate RMP.

In addition, the Proposed Project would not have an impact on the Jamul Mountains or Sweetwater Reservoir/San Miguel Mountain/Sweetwater River BRCAs, as described in Section 4.8.

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

According to Figure 4-1, Habitat Evaluation Model, of the MSCP County Subarea Plan (County of San Diego 1997), the Proposed Project encompasses moderate, high, and very high habitat value areas of coastal sage scrub communities. Diegan coastal sage scrub is the most predominant vegetation community within the Project Area, totaling 805.6 acres (includes disturbed forms). Of this total, approximately 380.6 acres is located within Village 14, and 384.9 acres is located within Planning Areas 16/19, with remainder in the off-site improvements area. The majority of this vegetation community occurs within the Development Footprint in Planning Areas 16/19 and within the Otay Ranch RMP Preserve in Village 14. As described in Section 4.6.1, County Group 1 Species and/or SSC Species, coastal California gnatcatcher occurs within the Project Area, and the coastal sage scrub where it was recorded is considered occupied habitat.

The Proposed Project conforms with the goals and requirements outlined in the MSCP Plan, MSCP County Subarea Plan, Otay Ranch RMP, City of San Diego's MHPA, and City of Chula Vista MSCP Subarea Plan, as described previously. All of these documents anticipated habitat connectivity.

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

The Proposed Project would maintain existing movement corridors and habitat linkages. See the discussion in Section 10.2.5.2, above, and the BMO Findings relative to parcels PV1, PV2, and PV3, attached hereto as Appendix A.

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

Impacts to Otay tarplant (a narrow endemic species) are discussed under County Guideline 4.1.A (see Section 6.2.1 of this report) and County Guideline 4.5.E (see Section 10.2.5 of this report). Approximately 35 variegated dudleya individuals were recorded within the southern portion of the Village 14 Development Footprint (**Impact SP-2**). Since this species is a narrow endemic, additional mitigation in the form of translocation and plantings would be provided (**M-BI-11**). In addition to relocation of existing populations for variegated dudleya to a suitable receptor site within the Otay Ranch RMP Preserve, the Biological Resource Salvage Plan would contain provisions for additional plantings of this species to achieve a 2:1 mitigation ratio. Therefore, impacts to this species would not be significant.

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

Three listed species were observed within the Project Area: Otay tarplant, San Diego fairy shrimp, and coastal California gnatcatcher. The Proposed Project would not result in impacts to known locations of San Diego fairy shrimp (based on protocol surveys conducted in 2014–2016). Impacts to Otay tarplant and coastal California gnatcatcher are discussed in relation to Guideline 4.1.A in Section 6.2.1. Although not observed in the Project Area, impacts to habitat for Quino checkerspot butterfly and Hermes copper butterfly are also discussed in Section 6.2.1.

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

Impacts to migratory birds (Impact W-5) are discussed in Sections 6.2.1, 6.2.2, and 6.2.3 of this report.

10.2.12 Project Effects Relevant to Guideline 4.5.L (Eagles)

As discussed in Section 5.3.1.2, Table 5-5, and Section 6.2.5, the Proposed Project would impact suitable foraging habitat for golden eagle (**Impact W-3**). This impact, however, was anticipated in the Otay Ranch RMP and MSCP Plan, and has, therefore, already been mitigated; thus, this impact would be less than significant. **M-BI-3** (conveyance of habitat to the Preserve) would ensure that the mitigation anticipated by the Otay Ranch RMP and MSCP Plan is implemented; **M-BI-4** provides an open space easement over 72.4 acres of additional habitat. As a condition of

the RMP, an open space easement will be placed over non-graded LDA which will provide for additional habitat preservation. The Proposed Project would not result in the "take" of golden eagle, eagle eggs, or any part of an eagle. The Proposed Project would not disturb any golden eagle or active golden eagle nest, and it would not place human disturbance within 4,000 feet of any active golden eagle nest. In addition, the Proposed Project would remain outside of the 3,000 foot buffer of historical nests as recommended in the Otay Ranch Raptor Management Study (Ogden 1992c).

10.3 Cumulative Impact Analysis

The Proposed Project would be consistent with the applicable planning documents and would not result in cumulative impacts under this guideline.

10.4 Mitigation Measures and Design Considerations

No other mitigation is proposed for impacts to local policies, ordinances, or plans because the Proposed Project is consistent with all approved planning documents and plans.

10.5 Conclusions

Implementation of the Proposed Project would not conflict with currently established local policies, ordinances, or plans. Biological resources protected under these documents are expected to remain safeguarded, given the compliance of the Proposed Project with the stipulations indicated in these regulations.

11 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Sections 6.5, 7.5, 8.5, 9.5, and 10.5 summarize the impacts and associated mitigation for each significant impact that may occur as a result of the Proposed Project. Table 11-1 summarizes the impacts and mitigation required for impacts to special-status species, vegetation communities, and jurisdictional areas.

Table 11-1
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	County 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.*						
6.2.1	Preventative Measure	Potential habitat for San Diego Fairy Shrimp	None	M-BI-7 (San Diego fairy shrimp take authorization)	Less than significant	4.1.A
6.2.1 6.2.2.2	W-1	Habitat for Special-Status Wildlife Species	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-6 (nesting bird survey) M-BI-12 (restoration of temporary impacts) M-BI-18 (noise)	Less than significant	4.1.A 4.1.B
6.2.1 6.2.2.2 6.2.3.2 6.2.6 6.2.12	W-2	Habitat for Special-Status Wildlife Species	Permanent Direct	M-BI-1 (biological monitoring) M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage) M-BI-6 (nesting bird survey) M-BI-13 (burrowing owl preconstruction)	Less than significant	4.1.A 4.1.B
6.2.5	W-3	Golden Eagle	Permanent Direct	M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage)	Less than significant	4.1.E

Table 11-1
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	County Guideline Number and Letter*
6.2.1	W-4	Quino Checkerspot Butterfly Suitable Habitat	Permanent Direct	M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage) M-BI-8 (Quino checkerspot butterfly take authorization) M-BI-9 (Quino checkerspot butterfly habitat preservation) M-BI-10 (Quino checkerspot butterfly management/enhancement plan)	Less than significant	4.1.A
6.2.1 6.2.2.2	W-5	Direct Loss of Birds under the MBTA	Permanent Direct	M-BI-1 (biological monitoring) M-BI-6 (nesting bird survey)	Less than significant	4.1.A 4.1.B
6.2.1	W-6	Hermes Copper Butterfly Suitable Habitat	Permanent Direct	M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage)	Less than significant	4.1.A
6.2.8.2 6.2.12	W-7	Special-Status Wildlife Species	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species)	Less than significant	4.1.H 4.1.L

Table 11-1
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	County Guideline Number and Letter*
				M-BI-17 (prevention of chemical pollutants) M-BI-18 (noise)		
6.2.8.2	W-8	Special-Status Wildlife Species	Permanent Indirect	M-BI-5 (permanent fencing and signage) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species) M-BI-18 (noise) M-BI-19 (fire protection) M-BI-20 (lighting)	Less than significant	4.1.H
6.2.2.1	SP-1	Special-Status Plant Species (County List A and B Species)	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing)	Less than significant	4.1.B
6.2.2.1	SP-2	Special-Status Plant Species (County List A and B Species)	Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-11 (biological resource salvage plan)	Less than significant	4.1.B
6.2.8.1	SP-3	Special-Status Plant Species	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing)	Less than significant	4.1.H

Table 11-1
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	County Guideline Number and Letter*
				M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-17 (prevention of chemical pollutants)		
6.2.8.1	SP-4	Special-Status Plant Species	Permanent Indirect	M-BI-5 (permanent fencing and signage M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species) M-BI-17 (prevention of chemical pollutants) M-BI-19 (fire protection)	Less than significant	4.1.H
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.*						
7.2.1	V-1	Sensitive Vegetation Communities – Project Area	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits	Less than significant	4.2.A

Table 11-1
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	County Guideline Number and Letter*
7.2.1	V-2	Sensitive Vegetation Communities-Village 14 and Planning Areas 16/19	Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage M-BI-21 (federal and state agency permits)	Less than significant	4.2.A
7.2.1	V-3	City of San Diego MSCP Cornerstone Lands	Temporary and Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-4 (biological open space easement) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits	Less than significant	4.2.A
7.2.1	V-4	Lands Within City of Chula Vista	Temporary and Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits)	Less than significant	4.2.A
7.2.1	V-5	Off-Site Private Lands	Temporary and Permanent	M-BI-1 (biological monitoring) M-BI-2 (temporary construction	Less than significant	4.2.A

Table 11-1
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	County Guideline Number and Letter*
			Direct	fencing) M-BI-12 (restoration of temporary impacts)		
7.2.1	V-6	County of San Diego Road Easement	Temporary and Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts)	Less than significant	4.2.A
7.2.1	V-7	Off-Site CDFW Owned Lands	Temporary and Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-3 (habitat conveyance and preservation) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits	Less than significant	4.2.A
7.2.4	V-8	Sensitive Vegetation Communities – Project Area	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-4 (biological open space easement) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-17 (prevention of chemical pollutants) M-BI-21 (federal and state agency permits	Less than significant	4.2.D

Table 11-1
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	County Guideline Number and Letter*
7.2.4	V-9	Sensitive Vegetation Communities – Project Area	Permanent Indirect	M-BI-5 (permanent fencing and signage M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species) M-BI-17 (prevention of chemical pollutants) M-BI-19 (fire protection)	Less than significant	4.2.D
7.2.2	V-10	Jurisdictional Aquatic Resources – Project Area	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits	Less than significant	4.2.B
7.2.2	V-11	Jurisdictional Aquatic Resources – Project Area	Permanent Direct	M-BI-21 (federal and state agency permits	Less than significant	4.2.B
7.2.2	V-12	Jurisdictional Aquatic Resources – Project Area	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-17 (prevention of chemical pollutants)	Less than significant	4.2.B
7.2.2	V-13	Jurisdictional Aquatic Resources – Project Area	Permanent Indirect	M-BI-5 (permanent fencing and signage M-BI-14 (SWPPP)	Less than significant	4.2.B

Table 11-1
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	County Guideline Number and Letter*
				M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species) M-BI-17 (prevention of chemical pollutants)		
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.*						
Refer to Impacts V-10 through V-13						
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.*						
9.2.1	WLC-1	Habitat Connectivity and Wildlife Corridors	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts)	Less than significant	4.4.A
9.2.4	WLC-2	Habitat Connectivity and Wildlife Corridors	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-18 (noise) M-BI-20 (lighting)	Less than significant	4.4.D
9.2.4	WLC-3	Habitat Connectivity and Wildlife Corridors	Permanent Indirect	M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage)	Less than significant	4.4.D

Table 11-1
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	County Guideline Number and Letter*
				M-BI-18 (noise) M-BI-20 (lighting)		
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.*						
None						

* **Source:** County of San Diego 2010a

12 REFERENCES

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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APPENDIX A

Biological Mitigation Ordinance Findings for PV1, PV2, and PV3 Located in the Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project

DRAFT

Biological Mitigation Ordinance Findings for PV1, PV2, and PV3 Located in Otay Ranch Village 14 and Planning Areas 16/19 San Diego County, California

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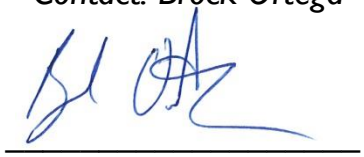

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Biological Mitigation Ordinance Findings for PV1, PV2, and PV3 Located in Otay Ranch Village 14 and Planning Areas 16/19

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ACOE	U.S. Army Corps of Engineers
BMO	Biological Mitigation Ordinance
BRCA	Biological Resource Core Area
CDFW	California Department of Fish and Wildlife
County	County of San Diego
CRPR	California Rare Plant Rank
dBA	A-weighted decibel
LDA	Limited Development Area
L_{eq}	equivalent sound level
MSCP	Multiple Species Conservation Program
Otay Ranch GDP/SRP	Otay Ranch General Development Plan/Otay Subregional Plan, Volume II
Otay Ranch PEIR	Otay Ranch Final Program Environmental Impact Report
RMP	Resource Management Plan
RWQCB	Regional Water Quality Control Board
USFWS	U.S. Fish and Wildlife Service

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Biological Mitigation Ordinance Findings for PV1, PV2, and PV3 Located in Otay Ranch Village 14 and Planning Areas 16/19

1 INTRODUCTION

1.1 Proposed Project

Otay Ranch Village 14 and Planning Areas 16/19 (Proposed Project) would implement a portion of the Otay Ranch General Development Plan/Otay Subregional Plan, Volume II (Otay Ranch GDP/SRP) (City of Chula Vista and County of San Diego 2015a), which identifies and coordinates land use patterns, objectives, and goals for the Otay Ranch community. The Otay Ranch GDP/SRP organizes development in a series of villages and planning areas with varying character and density, and designates boundaries for residential development and Otay Ranch Resource Management Plan (RMP) Preserve (see Section 3, Glossary, for definition).

The entire Project Area encompasses 1,369.0 acres, including approximately 723.7 acres within Otay Ranch Village 14, 559.9 acres within Planning Areas 16/19, and 85.4 acres of off-site development (Figure 1, Otay Ranch Village 14 and Planning Areas 16/19 Project). The Proposed Project would result in development on approximately 740.9 acres (not including 67.1 acres of temporary impacts) (i.e., Development Footprint; see Section 3 for definition). The Development Footprint would include off-site road and infrastructure development within approximately 85.4 acres of lands owned by the City of San Diego, the City of Chula Vista, the State of California, and private parties. The remainder of the Project Area consists of (1) 83.4 acres of ungraded Limited Development Area (LDA; see Section 3 for definition), (2) 426.7 acres of land to be conveyed to the Otay Ranch RMP Preserve, and (3) 72.4 acres of Conserved Open Space (see Section 3 for definition).

1.2 Proposed Project Background

Biological resources on three parcels within Village 14, referred to as PV1, PV2, and PV3 and shown on Figure 1, were evaluated in the Otay Ranch Final Program Environmental Impact Report (Otay Ranch PEIR) when the Board of Supervisors approved development on these three areas as part of the Otay Ranch GDP/SRP. In addition, biological resources within PV1, PV2, and PV3 were considered in the County of San Diego (County) General Plan Update Program EIR (2011) when the Board of Supervisors designated land uses for PV1, PV2, and PV3 as part of the General Plan Update. The Otay Ranch GDP/SRP (City of Chula Vista and County of San Diego 2015a), the Otay Ranch RMP (City of Chula Vista and County of San Diego 1996), and the County's General Plan (2011) designate PV1, PV2, and PV3 as the Village Residential.

The Multiple Species Conservation Program (MSCP) County of San Diego Subarea Plan (MSCP County Subarea Plan) Implementing Agreement between the County and Wildlife Agencies, Section 10.5.A.2, Assembly and Protection of the MSCP Plan Open Space Preserve – Application of Mitigation to Development, states, "The County shall require the following

mitigation in order to complete the segments of the Subarea Plan. . . . Protection of the areas identified as preserved in the boundaries of the Otay Ranch project including approximately 11,375 acres and an additional approximate 1,166 acres of limited development areas." Exhibit 24 of the Otay Ranch RMP identifies the 11,375 acres of Preserve that is referenced in Section 10.5.2 of the Implementing Agreement. PV1, PV2, and PV3 are not included in the 11,375-acre Otay Ranch RMP Preserve. As discussed further in Sections 1.3 and 2.1, PV1, PV2, and PV3 are not shown as Preserve on the MSCP Boundary Map (Attachment A of Document No. 0769999 on file with the clerk of the Board).

1.3 BMO Purpose and Need

Section 86.502, Application of Regulations, of the Biological Mitigation Ordinance (BMO) states that, unless exempt, the BMO "shall apply to all land within San Diego County shown on the MSCP Boundary Map (Attachment A of Document No. 0769999 on file with the Clerk of the Board)." Section 86.503 outlines instances when an exemption applies from the BMO requirements. Item a(4) provides an exemption for "any Take Authorization Area approved by the Board of Supervisors and the Wildlife Agencies as part of the County Subarea Plan, as shown on Attachment B of Document No. 0769999 on file with the Clerk of the Board or any approved Habitat Loss Permit issued pursuant to 16 U.S.C. [United States Code] Sec. 1533(d)" (County of San Diego 2010, Section 86.503, Item a[4]). Section 86.503 of the BMO, Exemptions, identifies 11 criteria for exemptions. PV1, PV2, and PV3 do not qualify for any of these exemptions. In addition, Attachment B of the BMO shows the entire approved Otay Ranch GDP/SRP Development Footprint for the Proposed Project, with the exception of PV1, PV2, and PV3, as exempt from the BMO. The County is seeking take authorization for PV1, PV2 and PV3 through the County MSCP Subarea Plan and the County's existing Section 10(a) permit. To accomplish this goal, the County must make findings demonstrating that PV1, PV2 and PV3 conforms to the BMO criteria. In certain cases where it may be infeasible for a project to meet all the goals and criteria of the BMO, the County may grant an exception to the specific requirements of the BMO (BMO, § 86.509(b); MSCP Implementing Agreement, §10.13.). Such an exception requires concurrence of the United States Fish and Wildlife Service and the California Department of Fish and Wildlife (collectively, the Wildlife Agencies). Accordingly, these BMO findings analyze PV1, PV2, and PV3 pursuant to the requirements of the BMO. Note, however, that if the County cannot make the necessary BMO findings and/or the Wildlife Agencies do not concur with the County, the Applicant may seek take authorization directly from one or both of the Wildlife Agencies pursuant to the federal Endangered Species Act and/or the California Endangered Species Act. The MSCP, the County MSCP Subarea Plan, and the IA acknowledge this alternative process of securing take authorization.

1.4 General Summary of BMO Findings Report

This BMO Findings Report evaluates the following three parcels of land within Village 14, referred to as PV1, PV2, and PV3, pursuant to the requirements of the County's BMO:

- PV1 is composed of approximately 18.9 acres and was originally designated for L2 development (i.e., low-density residential) under the Otay Ranch GDP/SRP and as Specific Plan Area in the County's General Plan.
- PV2 is composed of approximately 44.6 acres and was originally designated for L2 development under the GDP/SRP and as Specific Plan Area in the County's General Plan.
- PV3 is composed of approximately 134.5 acres and was originally designated for LM2 and LM3 development (i.e., low-medium density residential) under the GDP/SRP and as Specific Plan Area in the County's General Plan.

Notably, this analysis does not apply the County's BMO requirements to other areas of Village 14 or any of Planning Areas 16/19 because these areas are explicitly exempt pursuant to Section 86.503(a)(4) of the BMO. While this BMO Findings Report references Village 14 and Planning Areas 16/19 and the Proposed Project as a whole, the discussion is only to provide context for the BMO analysis of PV1, PV2, and PV3.

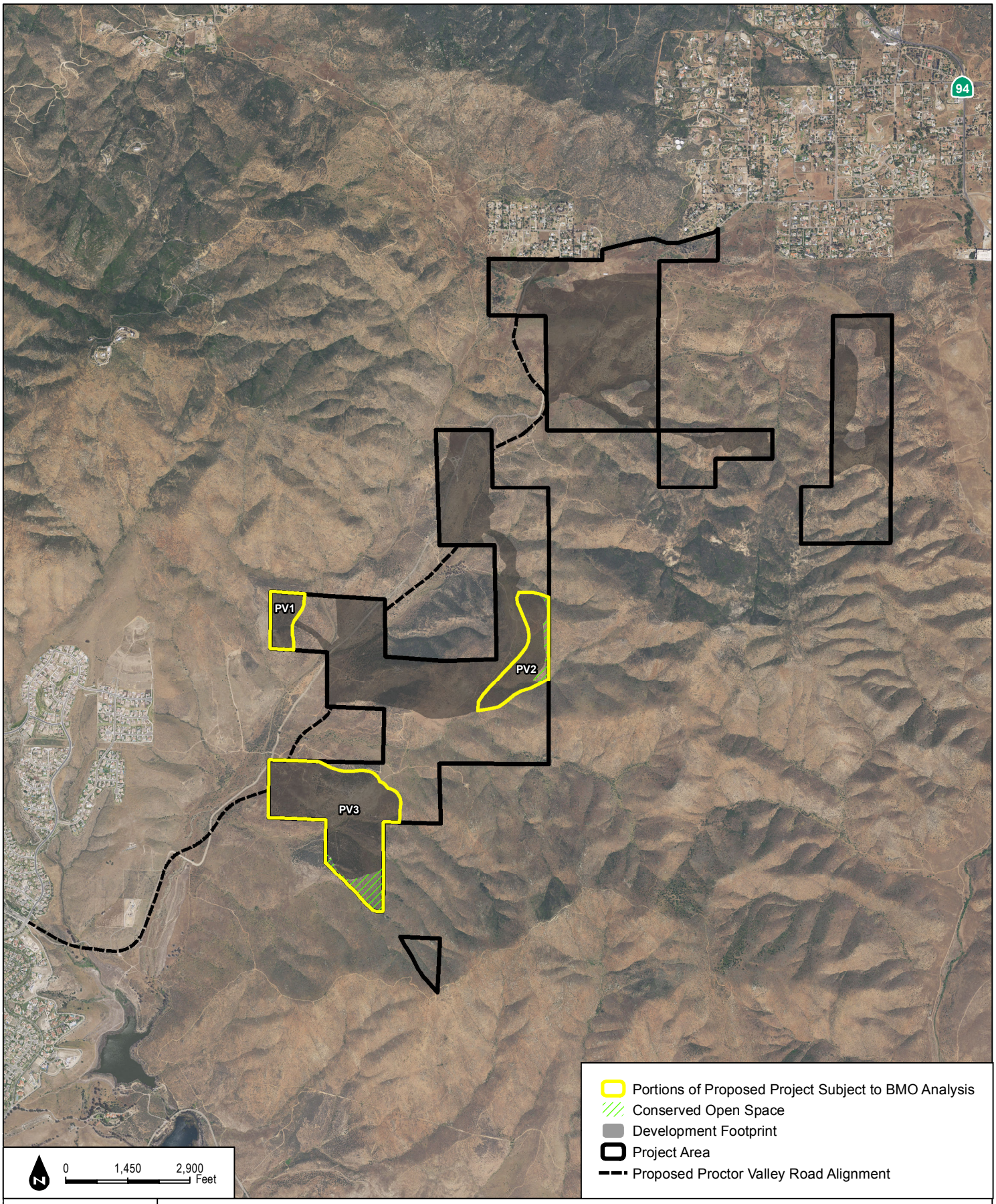
Based on the analysis presented, it was determined that PV1, PV2, and PV3 conform to the BMO and County of San Diego MSCP Subarea Plan Implementing Agreement. Specifically, this BMO analysis demonstrates that the specific criteria identified in the BMO, which allows the County to authorize incidental take to the applicant, can be met for PV1, PV2, and PV3.

It is important to note the following facts:

- PV1, PV2, and PV3 are not shown within the MSCP Preserve boundary as designated in the County of San Diego MSCP Subarea Plan Implementing Agreement.
- The 11,375-acre Otay Ranch RMP Preserve footprint, which is a component of the MSCP Preserve, would not be changed.
- The impacts resulting from development of PV1, PV2, and PV3 would be mitigated by conveying habitat to the Otay Ranch RMP Preserve and any additional species-specific mitigation identified in these BMO analysis and findings would be provided.
- The County Preserve Operator Manager (POM) will manage and maintain the Otay Ranch RMP Preserve. The applicant will be required to establish a funding mechanism for the management and maintenance of dedicated Preserve areas. The

Preserve conveyance requirement serves to mitigate throughout the entire Otay Ranch Preserve and, therefore, enables the Otay Ranch RMP Preserve system designed for Otay Ranch to be assembled and conveyed to the Otay Ranch Preserve Owner/Manager to be managed by one entity regardless of ownership.

- The Preserve Edge Plan requirements would provide a buffer between the Otay Ranch RMP Preserve and development in PV1, PV2, and PV3.
- A total of 20.1 acres of Conserved Open Space would be preserved within PV1, PV2, and PV3 and would either be conveyed into the Otay Ranch RMP Preserve at a future date or self-managed under a separate RMP. This is in addition to the Otay Ranch RMP Preserve Conveyance Obligation.



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SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 1

Otay Ranch Village 14 and Planning Areas 16/19

Otay Ranch Village 14 and Planning Areas 16/19

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2 BMO ANALYSIS AND FINDINGS

The proposed development of PV1, PV2, and PV3 conforms to the BMO, and the County of San Diego MSCP Subarea Plan Implementing Agreement as discussed in this analysis. Biological resources within PV1, PV2, and PV3 were evaluated in the Otay Ranch PEIR (1993) and by Dudek in the Biological Resources Technical Report (February 2018) for the Proposed Project. The Otay Ranch Village 14 and Planning Areas 16/19 EIR analyzed the Proposed Project's impacts to biological resources, including impacts within PV1, PV2, and PV3, and recommended mitigation measures to address those impacts identified as significant.

Table 1 summarizes the impacts and required mitigation for Tier II and Tier III vegetation communities within PV1, PV2, and PV3. Attachment K of the BMO outlines the tier levels for vegetation communities. The mitigation requirements in Attachment M are based on those tier levels and the location of impact and mitigation sites. The BMO does not outline mitigation ratios for impacts to waters or streambeds. These resources are regulated by the Resource Agencies (i.e., U.S. Army Corps of Engineers [ACOE], Regional Water Quality Control Board [RWQCB], and California Department of Fish and Wildlife [CDFW]) and would be fully addressed and mitigated during the permitting process with input and direction from the Resource Agencies. Impacts to sensitive wildlife would be mitigated through habitat conveyance; however, the Proposed Project would also implement specific mitigation measures to address impacts to coastal California gnatcatcher (*Polioptila californica californica*). Impacts to sensitive plant species would be mitigated through habitat conveyance; however, the Proposed Project would implement additional mitigation to address impacts to variegated dudleya (*Dudleya variegata*), San Diego barrel cactus (*Ferocactus viridescens*), San Diego goldenstar (*Bloomeria clevelandii*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), and San Diego marsh-elder (*Iva hayesiana*).

Table 1
Mitigation Requirements for Impacts to Tier II and III Habitats within PV1, PV2, and PV3

Habitat Types/ Vegetation Communities	Code[a]	Impacts PV1, PV2, and PV3	Required Mitigation – BRCA		Preservation	
			Mitigation Ratio	*Required Mitigation*	*On-Site PV1, PV2, and PV3*	*Otay Ranch RMP Preserve[b]*
Tier II						
Diegan coastal sage scrub	32500	76.2	1.5:1	114.3	18.2	102.3
Diegan coastal sage scrub (disturbed)	32500	33.0	1.5:1	49.5	—	43.3
Subtotal of Tier II Habitats[c]		*109.2*	—	*163.8*	*18.2*	*145.6*

Table 1
Mitigation Requirements for Impacts to Tier II and III Habitats within PV1, PV2, and PV3

Habitat Types/ Vegetation Communities	Code[a]	Impacts PV1, PV2, and PV3	Required Mitigation – BRCA		Preservation	
			Mitigation Ratio	*Required Mitigation*	*On-Site PV1, PV2, and PV3*	*Otay Ranch RMP Preserve[b]*
Tier III						
Granitic chamise chaparral	37210	62.7	1:1	62.7	1.9	60.8
Granitic chamise chaparral (disturbed)	37210	0.8	1:1	0.8	—	0.8
Non-native grassland	42200	0.8	1:1	0.8	—	0.8
Subtotal of Tier III Habitats		*64.3*	—	*64.3*	*1.9*	*62.4*
Total for Tier II and III Habitats[c]		**173.5**	**—**	**228.1**	**20.1**	**208.0**
Jurisdictional Aquatic Resources						
Waters/streambed[d]	64200	0.39	1:1	0.39	0.06	0.33
Subtotal of Jurisdictional Aquatic Resources[c]		0.39	—	0.39	0.06	0.33

Notes: BRCA = Biological Resource Code Area; RMP = Resource Management Plan
[a] Oberbauer et al. 2008.
[b] The Otay Ranch RMP Preserve is a component of the MSCP Preserve.
[c] May not total due to rounding.
[d] Waters/streambed is an overlay within various vegetation communities and is, therefore, not counted in the total.

2.1 Sections 86.502, 86.503, and 86.504

Section 86.502 of the BMO states that, unless exempt, the BMO "shall apply to all land within San Diego County shown on the MSCP Boundary Map (Attachment A of Document No. 0769999 on file with the Clerk of the Board)." The BMO applies upon application for a discretionary approval subject to the California Environmental Quality Act, and no project requiring a discretionary permit "shall be approved unless a finding is made that the project is consistent with the MSCP [County Subarea] Plan, the County Subarea Plan and the provisions of [the BMO]."

Section 86.503, Exemptions, of the BMO states that the BMO "shall not apply" to certain categories of projects. The exemption applicable to the BMO analysis of the Proposed Project is Subsection (a)(4) of Section 86.503 of the BMO. This subsection states that the BMO shall not apply to "any Take Authorization Area approved by the Board of Supervisors and the Wildlife Agencies as part of the County Subarea Plan, as shown on Attachment B of Document No. 0769999 on file with the Clerk of the Board or any approved Habitat Loss Permit" (County of San Diego 2010, Section 86.503[a][4]). Most of the Proposed Project is designated as a Take Authorized Area in Attachment B of the BMO and, thus, is exempt from the BMO.

However, three parcels, commonly referred to as PV1, PV2, and PV3, are not exempt from the BMO specifically as set forth in Section 86.503(a)(4), Attachment B of the BMO (Document No. 0769999 on file with the Clerk of the Board). Therefore a BMO analysis was conducted for these parcels. For projects that are not exempt from the BMO, Section 86.504, Administrative Process and Evaluations, outlines the requirements for submitting an environmental initial study pursuant to the San Diego County California Environmental Quality Act Guidelines. The applicant has submitted an initial study for County review, and as a result of the initial study, a draft biological resources technical report containing all relevant biological studies and an EIR were prepared for the Proposed Project, which includes PV1, PV2, and PV3. Therefore, the requirements of this section have been fulfilled.

2.2 Section 86.505 – Project Design Criteria

Section 86.505 of the BMO describes the following five design criteria that should be used to avoid and minimize impacts to the following resources: (1) critical populations of sensitive plant species within the MSCP Subarea (Attachment C of the BMO); (2) significant populations of rare, narrow endemic animal species within the MSCP Subarea (Attachment D of the BMO); (3) narrow endemic plant species within the MSCP Subarea (Attachment E of the BMO); (4) San Diego County sensitive plants, as defined herein; and (5) impacts to land determined to be a Biological Resource Core Area (BRCA). These five design criteria as they apply to PV1, PV2, and PV3 are described in Sections 2.2.1 through 2.2.5 and include minimization of project impacts, clustering of development, slope encroachment, road standards, and Preserve design.

2.2.1 Criterion 1 – Minimization of Impacts to Habitat

Criterion 1: Project development shall be sited in areas which minimize impact to habitat.

Discussion Specific to PV1, PV2, and PV3: Development of the 177.8 acres within PV1, PV2, and PV3 would result in impacts to 173.5 acres of Tier II and III upland vegetation communities and 0.39 acres of impacts to waters/streambed regulated by the Resource Agencies (Table 2; Figure 2, Biological Resources). Within PV2 and PV3, the Proposed Project would preserve 20.1 acres of land currently designated as low residential development within the GDP/SRP as Conserved Open Space. Areas of Conserved Open Space would be protected by a Biological open space easement or conveyed to the Otay Ranch RMP Preserve. The land designation of areas of Conserved Open Space would not be changed from development to Preserve unless the decision is made to convey the land to the Otay Ranch Preserve Owner/Manager through the boundary adjustment process. The Conserved Open Space within PV2, which is designated for development under the Otay Ranch GDP/SRP and County General Plan, is located along the eastern edge of the development and Preserve boundary. Development in this area of PV2 is proposed to be eliminated to minimize

impacts to Tier II Diegan coastal sage scrub immediately adjacent to MSCP Preserve owned by the Bureau of Land Management (Table 2; Figure 2). The Conserved Open Space within PV3 consists of a block of habitat adjacent to MSCP Preserve, which wraps around the south and western side of PV3. Development in this portion of PV3 is proposed to be eliminated to minimize impacts to Diegan coastal sage scrub and a pair of coastal California gnatcatcher.

These portions of the Proposed Project were chosen as Conserved Open Space because they (1) are adjacent to the Otay Ranch RMP Preserve, (2) are composed principally of Tier II coastal sage habitat, (3) include one pair of coastal California gnatcatcher, and (4) include steep slopes. Although the BMO allows for encroachment into steep slopes if it reduces impacts to biological resources, within the boundaries of PV1, PV2, PV3, development within steep slopes would result in further impacts to sensitive biological resources as discussed in Section 2.2.3.

In addition, the development of PV1, PV2, and PV3 has been designed to include a 100-foot Preserve edge providing a buffer between the Proposed Project's Development Footprint and the Otay Ranch RMP Preserve. The 100-buffer requirements are described in detail in the Preserve Edge Plan for the Proposed Project. Within the Development Footprint of PV1, PV2, and PV3, approximately 20% of the land, or 34.6 acres, is included within the 100-foot Preserve edge buffer.

Further reduction in the Development Footprint of PV1, PV2, and PV3 would limit the ability of the Proposed Project to achieve the density and land use policies set forth in the County's General Plan and the Otay Ranch GDP/SRP. Density transfer to other areas of Village 14 is not feasible because it would (1) increase the density and reduce lot sizes beyond what is allowed in the Otay Ranch GDP/SRP and the County's General Plan, and (2) result in inconsistencies in achieving the guiding principles and goals outlined in both of these regulatory documents. The BMO allows for mitigation off site for impacts to habitat that cannot be avoided on site.

Table 2
Vegetation Communities and Land Cover Types in PV1, PV2, and PV3

Habitat Types/ Vegetation Communities (Code[a])	PV1	PV2		PV3		Total	
	Development Footprint	*Development Footprint*	*Conserved Open Space*	*Development Footprint*	*Conserved Open Space*	*Development Footprint*	*Conserved Open Space*
Tier II							
Diegan coastal sage scrub (32500)	—	37.2	6.2	39.0	12.0	76.2	18.2

Table 2
Vegetation Communities and Land Cover Types in PV1, PV2, and PV3

Habitat Types/ Vegetation Communities (Code[a])	PV1	PV2		PV3		Total	
	Development Footprint	*Development Footprint*	*Conserved Open Space*	*Development Footprint*	*Conserved Open Space*	*Development Footprint*	*Conserved Open Space*
Diegan coastal sage scrub (disturbed) (32500)	—	—	—	33.0	—	33.0	—
Subtotal of Tier II Habitats	—	*37.2*	*6.2*	*72.0*	*12.0*	*109.2*	*18.2*
Tier III							
Granitic chamise chaparral (37210)	18.9	—	—	43.8	1.9	62.7	1.9
Granitic chamise chaparral (disturbed) (37210)	—	—	—	0.8	—	0.8	—
Non-native grassland (42200)	—	0.8	—	—	—	0.8	—
Subtotal of Tier III Habitats	*18.9*	*0.8*	—	*44.6*	*1.9*	*64.3*	*1.9*
Subtotal for Tier II and Tier III Habitats	*18.9*	*38.0*	*6.2*	*116.6*	*13.9*	*173.5*	*20.1*
Tier IV							
Urban/developed (12000)	—	—	—	0.1	—	0.1	—
Disturbed habitat (11300)	—	0.4	<0.1	3.8	—	4.2	<0.1
Subtotal of Tier IV Habitats	—	*0.4*	*<0.1*	*3.9*	—	*4.3*	*<0.1*
Subtotal Habitats	*18.9*	*38.4*	*6.2*	*120.5*	*14.0*	*177.8*	*20.1*
Totals[b]	**18.9**	**44.6**		**134.5**		**177.8**	**20.1**
Jurisdictional Aquatic Resources							
Waters/Streambed	—	0.05	0.01	0.34	0.05	0.39	0.06
Subtotal of Jurisdictional Aquatic Resources[c]	—	*0.05*	*0.01*	*0.34*	*0.05*	*0.39*	*0.06*

[a] Oberbauer et al. 2008.
[b] May not total due to rounding.
[c] Unvegetated stream channel is an overlay within various vegetation communities and is therefore not counted in the total.

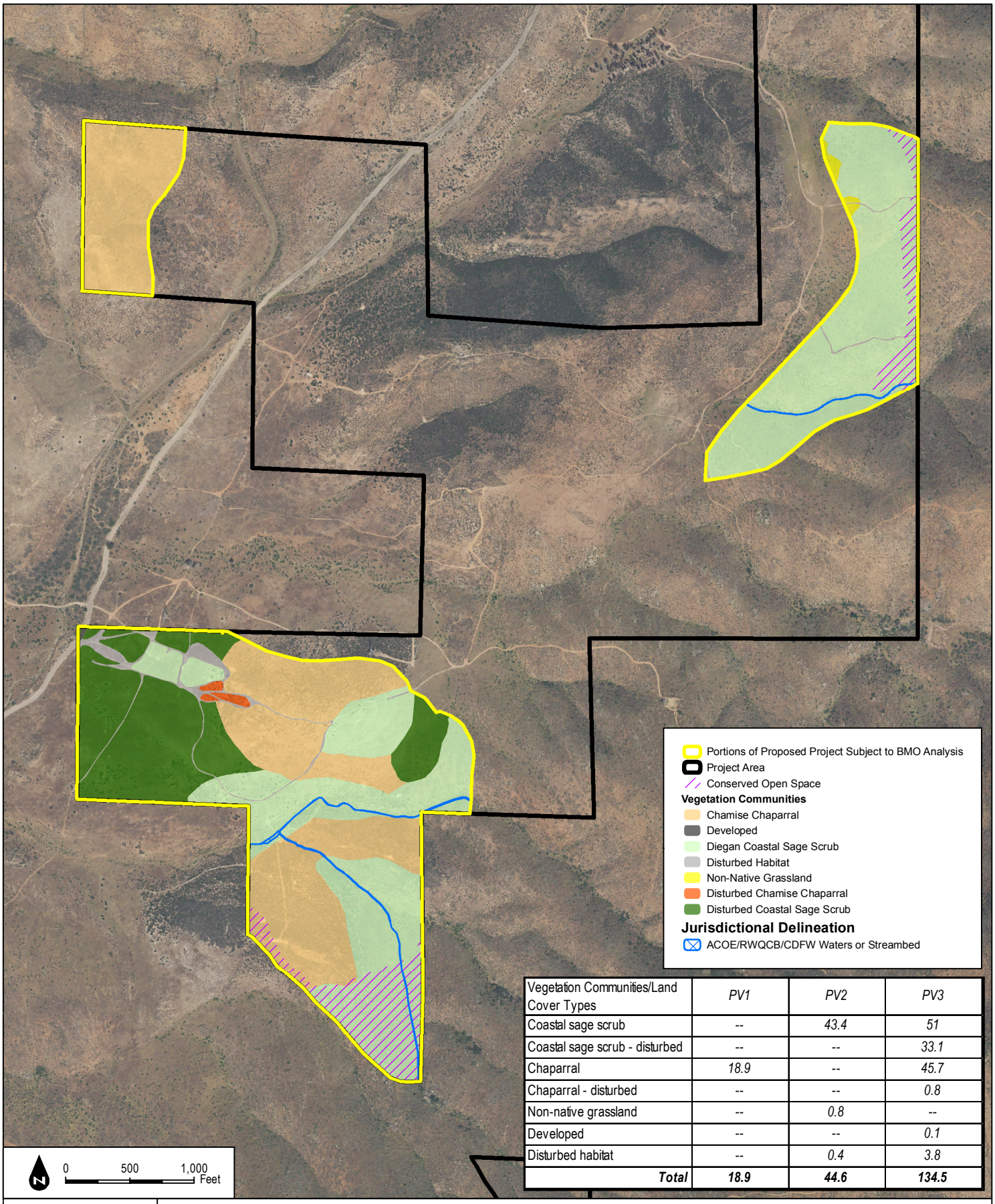
Discussion in the Context of the Otay Ranch RMP Preserve: As noted previously, impacts to biological resources within PV1, PV2, and PV3 were previously identified and analyzed in

conjunction with the original Otay Ranch GDP/SRP approval, including the Otay Ranch PEIR (City of Chula Vista and County of San Diego 1993). The County designated the Development Footprint for Otay Ranch, which includes PV1, PV2, and PV3, after extensive analysis, as outlined in the PEIR, to ensure that impacts to habitat were minimized. The least sensitive areas within Otay Ranch were designated for development, and the habitat deemed higher priority was included within the 11,375-acre Otay Ranch RMP Preserve.

Section 3.3.3.7 of the MSCP County Subarea Plan, when discussing Otay Ranch, states the following: "The planned preserve area or Management Preserve plans to capture the highest value resource areas as preserved lands and concentrate development in disturbed habitat or agricultural areas" (County of San Diego 1997, p. 3-15). PV1, PV2 and PV3 were not designated preserve in the MSCP Plan.

Analyzing the region, the Otay Ranch GDP/SRP and related environmental documents designated 5,517.2 acres of the 7,895.0-acre Otay Ranch Proctor Valley Parcel as Otay Ranch RMP Preserve. The Village 14 Development Footprint was generally sited to minimize impacts to the highest value resource areas in the Otay Ranch GDP/SRP. As described in detail herein, the development footprint for PV1, PV2 and PV3 will not impact the highest value resource areas, and impacts to biological resources are further minimized with an additional 20.1 acres in PV2 and PV3 conserved beyond what was contemplated in the Otay Ranch GDP/SRP and the Otay Ranch RMP and implementation of the 100-foot Preserve edge buffer.

Findings: Based on the discussion above, the Proposed Project would minimize impacts to habitat because (1) an additional 20.1 acres of habitat that is designated for development under the Otay Ranch GDP/SRP within PV2 and PV3 will be preserved in Conserved Open Space areas, avoiding impacts to sensitive coastal sage scrub habitat and a pair of coastal California gnatcatcher and providing more Preserve/development buffer; (2) PV1, PV2, and PV3 would pull development back 100 feet from the edge of any interface with the Otay Ranch RMP Preserve, creating a 34.6-acre undevelopable buffer; (3) pursuant to the original Otay Ranch GDP/SRP and Otay Ranch RMP approvals, on a subregional level, development areas in Otay Ranch, including PV1, PV2, and PV3, were located in areas designed to minimize impacts to habitat, while the more sensitive/higher priority habitat was included in the 11,375-acre Otay Ranch RMP Preserve. Development of PV1, PV2, and PV3 has been sited to minimize impacts to habitat. By providing additional preservation of 20.1 acres of habitat beyond what was originally identified within the Otay Ranch GDP/SRP and Otay Ranch RMP approvals, the proposed development within PV1, PV2, and PV3 would be in conformance with this criterion. Impacts to habitat that are not avoided within PV1, PV2, and PV3 would be mitigated through conveyance of 228.1 acres in the Otay Ranch RMP Preserve, which is a component of the MSCP Preserve (see Section 2.3).



Vegetation Communities/Land Cover Types	*PV1*	*PV2*	*PV3*
Coastal sage scrub	--	*43.4*	*51*
Coastal sage scrub - disturbed	--	--	*33.1*
Chaparral	*18.9*	--	*45.7*
Chaparral - disturbed	--	--	*0.8*
Non-native grassland	--	*0.8*	--
Developed	--	--	*0.1*
Disturbed habitat	--	*0.4*	*3.8*
Total	***18.9***	***44.6***	***134.5***

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SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 2

Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19

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2.2.2 Criterion 2 – Clustering of Development

Criterion 2: Clustering to the maximum extent permitted by County regulations shall be considered where necessary as a means of achieving avoidance.

Discussion Specific to PV1, PV2, and PV3: PV1, PV2, and PV3 have been reviewed in conjunction with this BMO Findings Report to determine if additional clustering within those boundaries was feasible. Each parcel is discussed below.

Clustering in PV1 was considered but found not feasible because it would add a second crossing over wildlife corridor L4. PV1 is constrained due to dead-end road length requirements in fire regulations (County of San Diego 2017, Section 96.1.503.2.4). Clustering would require a looped road into PV1, which would increase impacts to the Otay Ranch RMP Preserve (i.e., two access roads through the Otay Ranch RMP Preserve rather than one). In addition, the 100-foot Preserve edge buffer between development and the Otay Ranch RMP Preserve comprises 8.4 acres of the 18.9-acre Development Footprint in PV1 (i.e., 44%).

PV2 is located adjacent to Otay Ranch GDP/SRP–designated development for Village 14 and has similar planned densities. The eastern edge of PV2's Development Footprint has been pulled back (i.e., the area adjacent to the Otay Ranch RMP Preserve and Bureau of Land Management Land) to create a 6.3-acre area of Conserved Open Space. The Conserved Open Space would have a permanent open space easement recorded against it, ensuring it would not be developed. In addition, the 100-foot Preserve edge buffer between development and the Otay Ranch RMP Preserve around PV2 comprises 9.9 acres of the 38.4-acre Development Footprint in PV2 (26%).

Within PV3, development has been clustered away from the Otay Ranch RMP Preserve through the designation of a Conserved Open Space area and the previously described 100-foot Preserve edge buffer. The 14-acre Conserved Open Space area is located at the southern tip of PV3 and wraps around to the western boundary of PV3. In addition, the 100-foot Preserve edge buffer between development and the Otay Ranch RMP Preserve comprises 17.3 acres of the 120.5-acre Development Footprint in PV3 (14%). In PV3, a redesign to further avoid impacts would eliminate secondary access for fire and would not comply with County regulations. The Proposed Project relocates the existing Proctor Valley Road, an approved MSCP County Subarea Plan mobility element facility, onto PV3 to avoid potential impacts to vernal pools and fairy shrimp areas within the City of San Diego MSCP Cornerstone Lands, further reducing the footprint for residential development. The Conserved Open Space, Preserve edge, and the decision to relocate Proctor Valley Road to avoid impacts to vernal pools further reduces the amount of developable land.

Discussion in the Context of the Otay Ranch RMP Preserve: Overall, the Development Footprint of PV1, PV2, and PV3 is less than the original land use area of the designated Otay Ranch GDP/SRP Development Footprint, which previously considered and implemented clustering. The original land use area of the Otay Ranch GDP/SRP clustered residential lots to minimize impacts to biological resources, steep slopes, and other environmental resources in Otay Ranch determined in the Otay Ranch PEIR.

Findings: As discussed previously, clustering of development to the maximum extent permitted by County regulations has been considered. PV1, PV2, and PV3 cluster residential lots to the extent feasible under existing Otay Ranch GDP/SRP land use designations of Low Density Residential (L) and Low Medium Village Density Residential (LMV). In addition, other design and County regulation considerations (namely fire requirements) limit the feasibility of further clustering. The Conserved Open Space and the 100-foot Preserve edge buffer reduce the Development Footprint within PV1, PV2, and PV3 by 55.7 acres (a 24% reduction). It is not feasible to further cluster development and still meet the land use designations. Therefore, the proposed development within PV1, PV2, and PV3 would be in conformance with this criterion.

2.2.3 Criterion 3 – Slope Encroachment

Criterion 3: Notwithstanding the requirements of the Slope Encroachment Regulations contained within the Resource Protection Ordinance, effective October 10, 1991, projects shall be allowed to utilize design which may encroach into steep slopes to avoid impacts to habitat.

Discussion: The Otay Ranch RMP is deemed the functional equivalent of the County Resource Protection Ordinance (County of San Diego 2007) for Otay Ranch (City of Chula Vista and County of San Diego 1996, p. P-1). Otay Ranch projects are exempt from the provisions of the Resource Protection Ordinance "if determined to be consistent with a Comprehensive Resource Management and Protection program which has been adopted by the Board of Supervisors for the 'Otay Ranch'" (i.e., the Otay Ranch RMP) (City of Chula Vista and County of San Diego 1996, p. P-1; Resource Protection Ordinance Article V, Section 9 (County of San Diego 2007)).

Development of PV1, PV2, and PV3 avoids approximately 13 acres of allocated Otay Ranch RMP steep slope impacts and would be consistent with the Otay Ranch RMP steep slope requirements. Since the majority of the vegetation within PV1, PV2, and PV3 would be considered habitat for special-status species (Table 2), encroachment into steep slopes would not help avoid impacts to habitat. Encroachment into the steep slopes within areas designated as Conserved Open Space would not avoid impacts to habitat because these areas are composed of coastal sage scrub habitat and support a pair of coastal California gnatcatcher. Thus encroachment into steep slopes would result in additional impacts to biological resources.

Findings: As discussed previously, encroachment into steep slopes beyond the proposed Development Footprint would not avoid impacts. The steep slopes within the Conserved Open Space feature coastal sage scrub and habitat for a pair of coastal California gnatcatcher. Development within PV1, PV2, and PV3 would not impact steep slopes beyond what was contemplated in the Otay Ranch RMP because doing so would not avoid impacts to habitat. The proposed development within PV1, PV2, and PV3 would be in conformance with this criterion.

2.2.4 Criterion 4 – Road Standards

Criterion 4: The County shall consider reduction in road standards to the maximum extent consistent with public safety considerations.

Discussion: The Otay Ranch GDP/SRP designated Proctor Valley Road as a four-lane major roadway. The County downsized Proctor Valley Road from four lanes to two lanes in its 2011 General Plan Update. The Proposed Project designates Proctor Valley Road as a two-lane facility through PV3 and would be consistent with the County's effort to reduce the road standards. The Proposed Project includes an amendment to the Otay Ranch GDP/SRP to reclassify Proctor Valley Road to a two-lane light collector within Otay Ranch Village 14 and north to Jamul. Amending the Otay Ranch GDP/SRP to reclassify Proctor Valley Road as a two-lane road minimizes environmental impacts, as discussed in the Biological Resources Technical Report for the Proposed Project. In addition, Proctor Valley Road is proposed to be relocated into PV3 to avoid impacts to the City of San Diego MSCP Cornerstone Lands.

Proposed local roads within PV1, PV2, and PV3 are designed to County road standards consistent with public safety considerations. Based on extensive discussions with the County Fire Department, further reductions to the widths of roads in PV1, PV2, and PV3 would result in unacceptable life safety risk and, therefore, are not feasible.

Findings: As discussed previously, the County has considered reduction in road standards to the maximum extent consistent with public safety considerations. The Proposed Project designates Proctor Valley Road as a two-lane facility through PV3 and would be consistent with the County's effort to reduce the road standards. This design criterion is met because (1) Proctor Valley Road has been reduced in width, and (2) further reductions in internal road standards are not feasible due to public safety issues.

2.2.5 Criterion 5 – Preserve Design Criteria and Design Criteria for Linkages and Corridors

Criterion 5: Projects shall be required to comply with applicable design criteria in the MSCP County Subarea Plan, attached hereto as Attachment G (Preserve Design Criteria) and Attachment H (Design Criteria for Linkages and Corridors).

2.2.5.1 Preserve Design Criteria (Attachment G)

This section provides the Preserve Design Criteria, as outlined in Attachment G of the BMO, and analyzes whether PV1, PV2, and PV3 conform to those criteria.

1. ***Acknowledge the no-net-loss-of-wetlands standard to satisfy state and federal wetland goals, policies, and standards, and implement applicable County ordinances with regard to wetland mitigation.***

   Discussion: Development of PV2 and PV3 would result in the loss of 0.39 acres of unvegetated stream channel. There are no jurisdictional resources within PV1; however, it should be noted that the access road to PV1 would result in impacts to jurisdictional resources. Impacts relating to this portion of the Proposed Project are identified and addressed in the Biological Resources Technical Report for the Proposed Project. The following mitigation would ensure that PV2 and PV3 would result in no net loss of jurisdictional resources as required by the Otay Ranch RMP:

   - Prior to impacts occurring to ACOE, RWQCB, and CDFW jurisdictional aquatic resources, the applicant shall obtain the following permits: ACOE 404 permit, RWQCB 401 Water Quality Certification, and CDFW California Fish and Game Code Section 1600 Streambed Alteration Agreement. Impacts to unvegetated stream channel shall occur at a minimum of 1:1 impact-to-creation ratio to ensure no net loss of these resources. A suitable mitigation site shall be selected and approved by the ACOE, RWQCB, and CDFW during the permitting process. The mitigation may occur within the Project Area or at a suitable off-site location.
   - Prior to issuance of land development permits, including clearing, grubbing, and grading permits that impact jurisdictional aquatic resources, the applicant shall prepare a wetlands mitigation and monitoring plan to the satisfaction of the Director of Planning and Development Services (or designee), the Director of Parks and Recreation, ACOE, RWQCB, and CDFW. The conceptual wetlands mitigation and monitoring plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with

qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation.

Findings: As described previously, the Otay Ranch GDP/SRP is exempt from the Resource Protection Ordinance and is instead regulated by the Otay Ranch RMP, which requires no net loss of wetlands (Policy 2.10). The development of PV2 and PV3 would result in the loss of 0.39 acres of unvegetated stream channel within the jurisdiction of ACOE, RWQCB, and CDFW. This impact would be mitigated at the minimum of 1:1 impact-to-creation ratio set forth in the Otay Ranch RMP. Therefore, the no-net-loss standards of the Otay Ranch RMP and the BMO would be met.

2. ***Include measures to maximize the habitat structural diversity of conserved habitat areas, including conservation of unique habitats and habitat features (e.g., soil types, rock outcrops, drainages, host plants).***

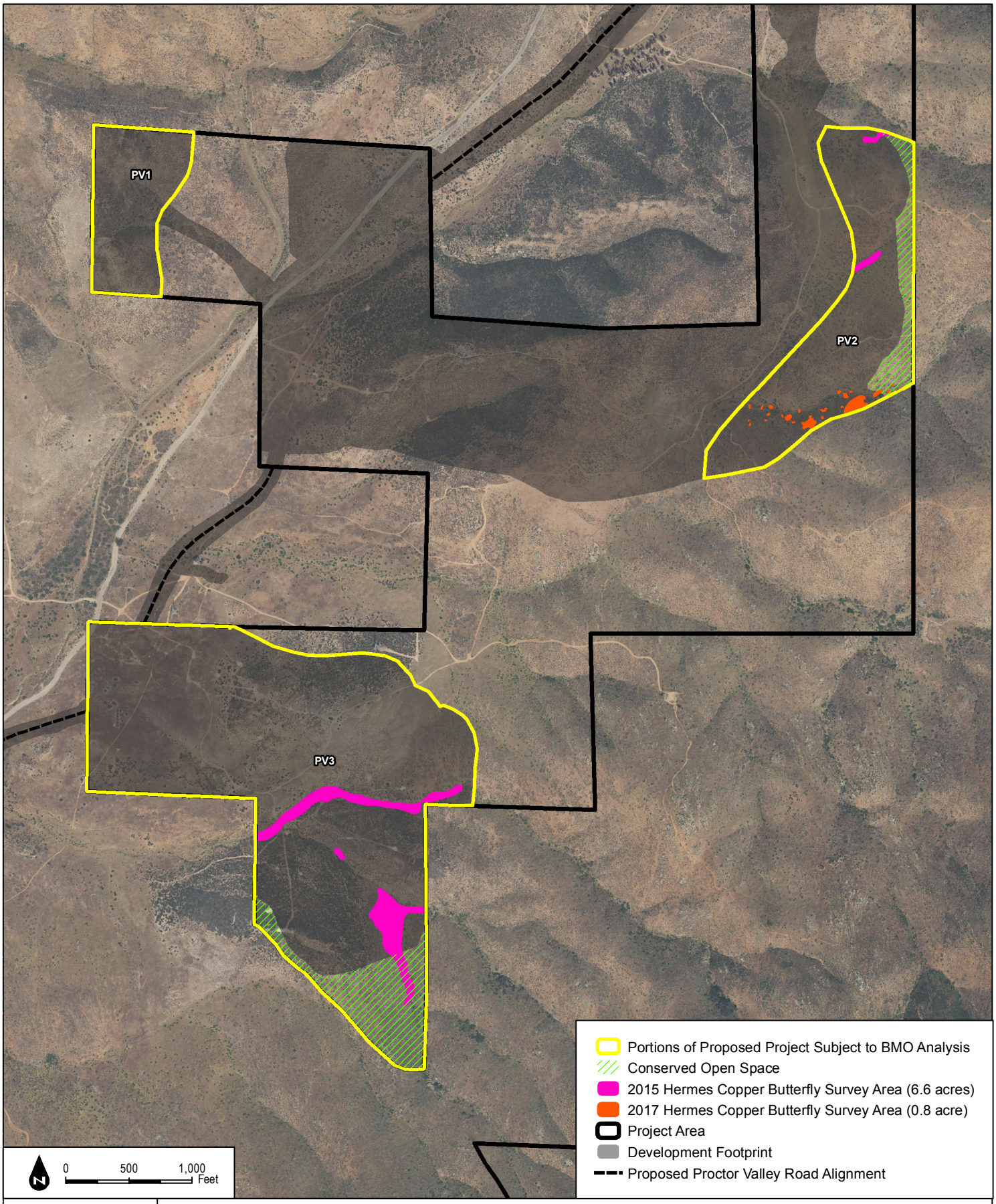
Discussion Specific to PV1, PV2, and PV3: PV1, PV2, and PV3 are composed of habitats found throughout the Otay Ranch RMP Preserve and Proctor Valley Parcel, as well as other conserved land within the MSCP Preserve. While PV1, PV2, and PV3 contain sensitive habitat types, the parcels do not support unique habitats not otherwise found within the region. PV1, PV2, and PV3 are not identified as Preserve in the Otay Ranch GDP/SRP, the County General Plan, or the MSCP County Subarea Plan. Impacts to habitat within PV1, PV2, and PV3 would be mitigated through conveyance of 228.1 acres within the Otay Ranch RMP Preserve, which is a component of the MSCP Preserve. The habitat conveyed to the Otay Ranch RMP Preserve is anticipated to be similar to, or of higher quality than, the habitat being impacted, and if feasible, an area that is structurally diverse and includes unique habitats and habitat features would be selected for mitigation.

In addition, 20.1 acres of habitat would be conserved in PV2 and PV3. These 20.1 acres would be designated as Conserved Open Space, and a permanent open space easement would be recorded or the land would be conveyed to the Otay Ranch Preserve. All but a very small fraction (0.1 acres of disturbed habitat) within the 20.1-acre Conserved Open Space consists of native vegetation (predominantly coastal sage scrub, which has the potential to support special-status species). As discussed previously in this BMO Findings Report, the 20.1 acres of Conserved Open Space includes one pair of coastal California gnatcatcher and is contiguous to MSCP Preserve, which contains high habitat structural diversity and unique habitats and features.

The Conserved Open Space in PV1, PV2, and PV3 includes 0.8 acres of Hermes copper butterfly (*Lycaena hermes*) host plant (Figure 3, Hermes Copper Survey Area) and 0.1 acres of Quino checkerspot butterfly (*Euphydryas editha quino*) host plant and 20.1 acres

of suitable habitat for the species (Figure 4, Quino Checkerspot Butterfly Host Plants). In addition, the Conserved Open Space includes 0.06 acres of waters/streambed. As previously discussed, the Otay Ranch GDP/SRP designated these areas for development. In addition, the Otay Ranch RMP Preserve lands within the Project Area include 0.72 acres of Quino checkerspot butterfly host plant and 6.5 acres of Hermes copper butterfly host plant. In addition, there are 0.92 acres of Quino checkerspot butterfly host plant and 2.2 acres of Hermes copper butterfly host plant in non-graded LDA and Conserved Open Space within the Project Area. Areas of Conserved Open Space would be placed in a biological open space easement or conveyed to the Otay Ranch RMP Preserve and could be used for mitigation while areas of non-graded LDA would be in an open space easement per the terms of LDA as outlined in the Otay Ranch GDP/SRP (Section 3). Approximately 1.73 acres of stream channel within the Project Area will either remain un-impacted and conveyed to the Otay Ranch RMP Preserve, or restored to pre-project conditions. Mitigation will be either in onsite or offsite Otay Ranch RMP Preserve. In order for the off-site mitigation parcels to be acceptable as mitigation for sensitive plant and wildlife species, including Quino checkerspot butterfly, the vegetation within the off-site parcel must be mapped, and the site would have suitable habitat to support Quino checkerspot butterfly per the survey guidelines definition of habitat.

Discussion in the Context of the Otay Ranch RMP: After years of extensive analysis, the County and the City of Chula Vista approved the Otay Ranch GDP/SRP and Otay Ranch RMP and, in so doing, designated development areas and Otay Ranch RMP Preserve in the Proposed Project. During the Otay Ranch PEIR analysis, and prior to the jurisdictions' approval of the Otay Ranch GDP/SRP and Otay Ranch RMP, more than seven different alternative land plans were considered for the Proctor Valley Parcel, which includes PV1, PV2, and PV3, taking into consideration sensitive habitat and species, wildlife corridors, topography, surrounding land uses, and proposed circulation systems. Impacts to biological resources and mitigation for those impacts were analyzed extensively during the Otay Ranch GDP/SRP planning of the Proposed Project to maximize the structural habitat diversity of conserved areas; conserve unique habitats and habitat features; and ensure that efforts were made to limit development, where feasible, to areas with the least-sensitive habitat. The Proposed Project, including the proposed development within PV1, PV2, and PV3, would not change the Otay Ranch RMP Preserve footprint. As previously stated, the Otay Ranch RMP Preserve was designated to encompass the highest value resource areas as preserve land (County of San Diego 1997, p. 3-15). Per the requirements of the BMO, the impacts to habitat in PV1, PV2, and PV3 would be mitigated by using like kind or up-tiered habitat within the Otay Ranch RMP Preserve.



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SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 3

Hermes Copper Survey Area

Otay Ranch Village 14 and Planning Areas 16/19

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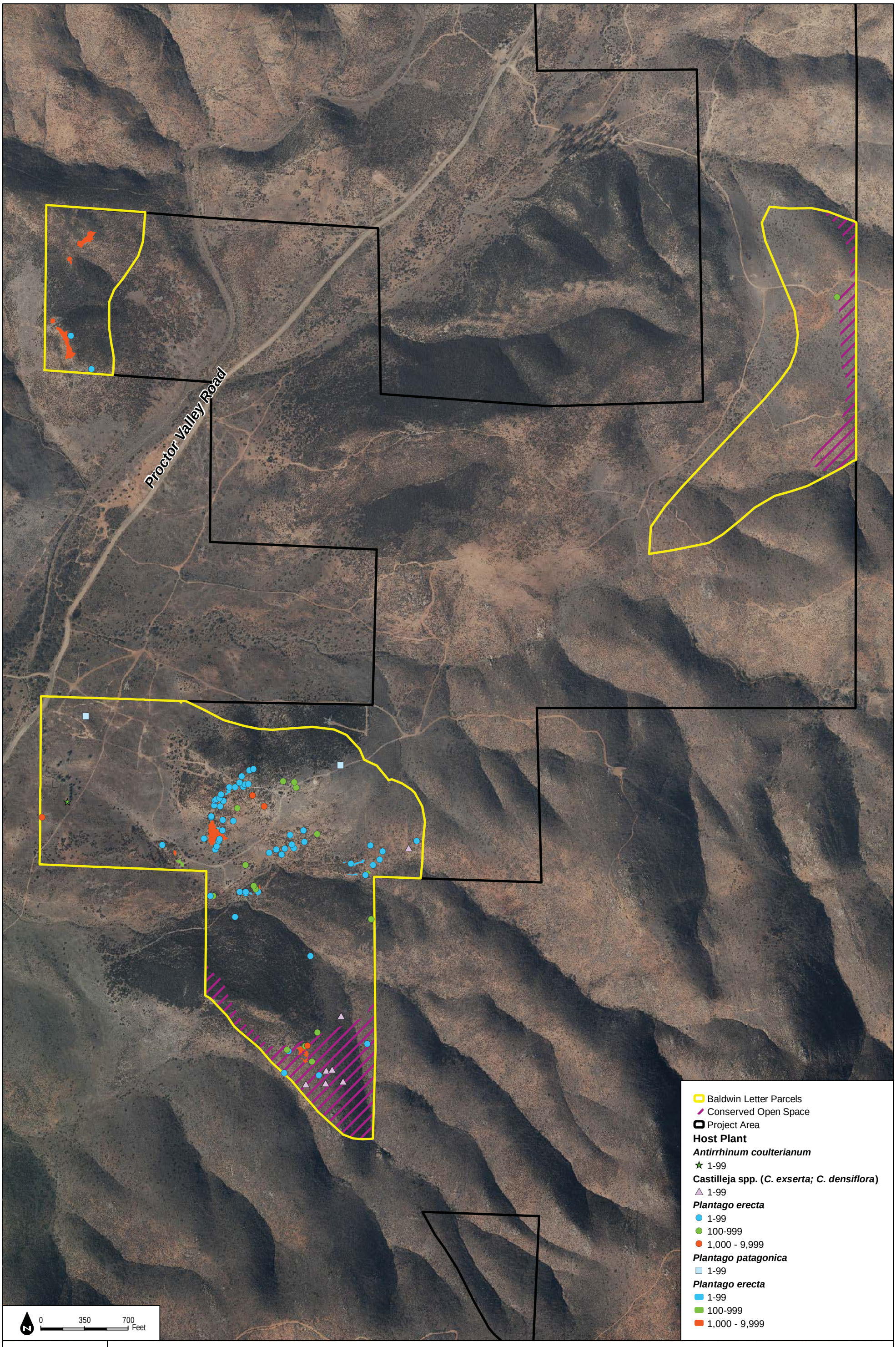

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

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Figure 4
Quino Checkerspot Butterfly Host Plants

Otay Ranch Village 14 and Planning Areas 16/19

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Findings: The Proposed Project would maximize habitat structural diversity of conserved areas by providing preservation of areas within PV2 and PV3 that include 0.1 acres of Quino checkerspot butterfly host plant and 20.1 acres of suitable habitat for this species and 0.8 acres of Hermes copper butterfly host plant. In addition, the Conserved Open Space includes 0.06 acres of waters/streambed. These areas would have otherwise been developed under the Otay Ranch GDP/SRP and County General Plan Development Footprint. Additional preservation would be provided within the Otay Ranch RMP Preserve, which is an integral component of the MSCP Preserve. The Otay Ranch RMP Preserve essentially functions as Otay Ranch's mitigation bank and possesses characteristics of high to very high habitat structural diversity and conservation of unique habitats and habitat features. Therefore, the proposed development within PV1, PV2, and PV3 would be in conformance with this criterion.

3. ***Provide for the conservation of spatially representative (e.g., north of I-8 vs south of I-8) examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological value by the MSCP habitat evaluation model.***

   Discussion Specific to PV1, PV2, and PV3: Per Figure 4-1, Habitat Evaluation Model, of the MSCP County Subarea Plan, PV1 (18.9 acres) is designated as high habitat value (County of San Diego 1997). Of the 44.6 acres within PV2, 21.2 acres is considered to have very high habitat value, 9.2 acres is considered to have high habitat value, and 14.3 acres is considered to have moderate habitat value (Figure 5, Habitat Evaluation Model). Within PV3, 92.8 acres of the 134.5 acres is considered to have very high habitat value and 11.3 acres is considered to have high habitat value, while the remaining acreages vary from moderate (13.4 acres) to low (14.3 acres) habitat value, with 2.7 acres having no evaluation. Proposed development within PV1, PV2, and PV3 would have impacts to 98.1 acres of coastal sage scrub categorized as high or very high habitat value but would conserve 18.2 acres of coastal sage scrub that would be subject to development under the Otay Ranch GDP/SRP. Of the 18.2 acres of coastal sage scrub within Conserved Open Space, 10.8 acres is considered to have moderate to high habitat value and the remaining acreage is categorized as having low habitat value.

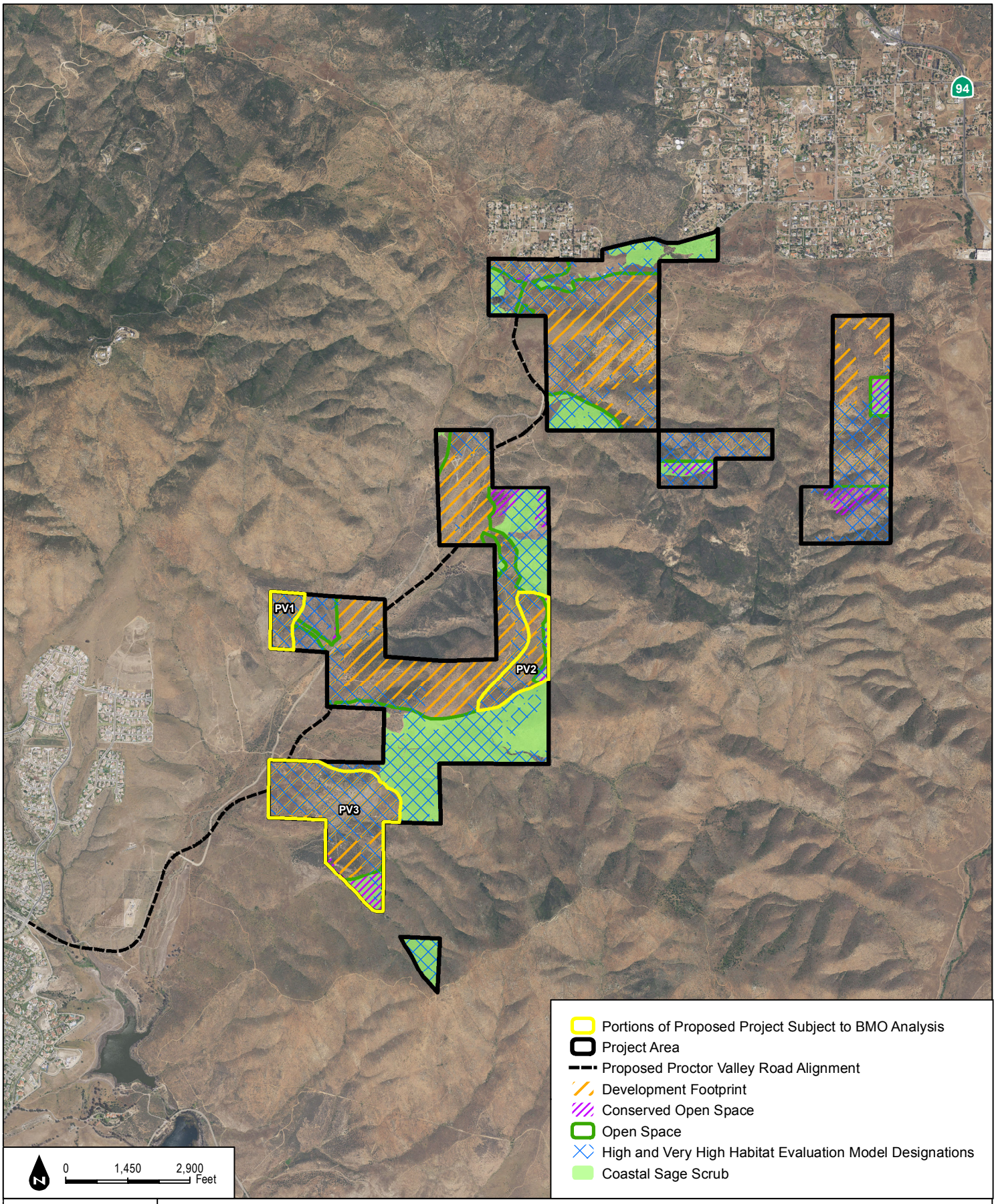
   Discussion in the Context of the Otay Ranch RMP Preserve: The overall mitigation requirements for the Proposed Project, including development on PV1, PV2, and PV3, are set forth in the conveyance obligation outlined in the Otay Ranch RMP. Pursuant to the Otay Ranch RMP Preserve Conveyance Obligation, the Proposed Project would convey 1.188 acres of Otay Ranch RMP Preserve for every 1 acre of Otay Ranch development, which may be satisfied with any acre of Otay Ranch RMP Preserve regardless of location, ownership, or habitat value. According to these requirements, the Proposed Project would be required to convey approximately 776.8 acres to the Otay

Ranch RMP Preserve. For PV1, PV2, and PV3, the development equals 203.5 acres (171.3 acres of impacts mitigated at the 1.188 ratio totals 203.5 acres), which would be conveyed specifically to mitigate the impacts of the development (Table 1).

Beyond the mitigation requirements of the Otay Ranch RMP, the BMO mitigation ratios would require an additional 24.6 acres to mitigate the impacts of development on PV1, PV2, and PV3 for a total mitigation requirement of 228.1 acres. These 228.1 acres of mitigation would be located in either the on-site Otay Ranch RMP Preserve or the Conserved Open Space areas on-site and would be like-kind (or up-tiered) habitat. For example, development of PV1, PV2, and PV3 would impact 109.2 acres of coastal sage scrub. Based on the BMO-required mitigation ratios, the mitigation requirement for PV1, PV2, and PV3 would be 168.8 acres of coastal sage scrub. In the Project Area, there are 264.2 acres of coastal sage scrub in the Otay Ranch RMP Preserve and an additional 45.2 acres of coastal sage scrub within Conserved Open Space for a total of 309.4 acres. Therefore, there is more than sufficient like-kind habitat (309.4 acres) within the Project Area to mitigate the coastal sage scrub impacts from development of PV1, PV2, and PV3. The majority of this like-kind habitat is of high to very high habitat value (183 acres (59%) is designated as very high habitat value and 56.6 acres (18%) is designated as high habitat value), with much of it found in large patches.

Additional Otay Ranch RMP Preserve land would be acquired outside the boundaries of the Project Area to meet the 1.188 Otay Ranch RMP Preserve Conveyance Obligation requirements for the Proposed Project (776.8 acres of Preserve conveyance). Of the 776.8 acres of required conveyance, 426.7 of Otay Ranch RMP Preserve within the Project Area will be conveyed. The additional 350.1 acres required for mitigation would be purchased off site within the Otay Ranch RMP Preserve. Additional mitigation as a result of the BMO analysis may be satisfied through onsite or offsite conveyance or Conserved Open Space within the overall Project Area, including PV2 and PV3. It is anticipated that the off-site conveyance of land to the Otay Ranch RMP Preserve, which is required to meet the Proposed Project's overall conveyance obligations, would preserve additional areas of coastal sage scrub and other high to very high habitat value. Once the off-site mitigation location is determined, a biological assessment of that parcel would determine the amount of high habitat value.

Therefore, with the Otay Ranch RMP Preserve Conveyance Obligation requirements for impacts from development of PV1, PV2, and PV3 (i.e., 203.5 acres) and additional mitigation required by the BMO mitigation ratios (24.6 acres), the like-kind mitigation conveyed for impacts within PV1, PV2, and PV3 would provide for the conservation of spatially representative examples of extensive patches of coastal sage scrub and other habitat types that are ranked as having high and very high biological value by the MSCP County Subarea Plan habitat evaluation model.



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SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 5

Habitat Evaluation Model

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Findings: As discussed previously, impacts to coastal sage scrub and other sensitive habitat types within PV1, PV2, and PV3 would be mitigated through either conveyance management and funding of 228.1 acres within the Otay Ranch RMP Preserve or preservation and management of Conserved Open Space on site through a conservation program and long-term funding. This mitigation would provide for conservation of spatially representative, extensive patches of coastal sage scrub and other high and very high biological values. The preservation in PV1, PV2, and PV3 includes 20.1 acres of Conserved Open Space, of which 7.1 acres is high/very high habitat value and contiguous to other areas considered to have high habitat value in the Otay Ranch RMP Preserve. As shown in Table 1, the 20.1 acres of Conserved Open Space helps to meet the habitat based mitigation requirements of this BMO analysis (Table 5). As stated previously, the Otay Ranch RMP Preserve is a component of the MSCP Preserve. Development of PV1, PV2, and PV3 would be consistent with this criterion.

4. ***Create significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats using the criteria set out in Chapter 6, Section 6.2.3 of the MSCP [County Subarea] Plan. Potential impacts from new development on biological resources within the Preserve that should be considered in the design of any project include access, non-native predators, non-native species, illumination, drain water (point source), urban runoff (non-point source), and noise.***

   Discussion Specific to PV1, PV2, and PV3: The Preserve Edge Plan for PV1, PV2, and PV3 creates a 100-foot buffer between the Otay Ranch RMP Preserve and development. The Preserve Edge Plan identifies the limited uses and functions allowed within the 100-foot-wide Preserve edge and provides a list of plant species that are appropriate adjacent to the Otay Ranch RMP Preserve. The Preserve Edge Plan addresses drainage, toxic substances, lighting, noise, fuel modification, fencing, and invasive species in accordance with Chapter 3 of the Otay Ranch RMP and additional MSCP County Subarea Plan guidelines. The Preserve edge reduces development within PV1, PV2, and PV3 and adjacent to the Otay Ranch RMP Preserve by 34.6 acres.

   In addition, development would be prohibited in 20.1 acres of areas currently designated in the Otay Ranch GDP/SRP and County General Plan as low residential for development in PV2, and PV3, which would instead be categorized as Conserved Open Space, which would be protected under a Biological Open Space Easement. The 20.1 acres of Conserved Open Space is composed of approximately 6.1 acres located along the eastern edge of PV2 and approximately 14.0 acres within the southern portion of PV3. The 6.1 acres of Conserved Open Space along the eastern edge of PV2 is immediately adjacent to proposed development. Providing an additional 6.1 acres of Conserved Open Space along

the entire development edge would pull development away from designated Preserve and add to the adjacent open space habitat blocks. Since the 6.1 acres of PV2 is adjacent to development, fragmentation of large blocks of habitat would not occur. Providing 14 acres of Conserved Open Space within the southern portion of PV3 eliminates a finger of development south adjacent to the Otay Ranch RMP Preserve and Cornerstone Lands and reduces the development/Preserve interface edge by 1,400 feet. The Proposed Project relocates the existing Proctor Valley Road, an approved MSCP County Subarea Plan mobility element facility, onto PV3 to avoid potential impacts to vernal pools and fairy shrimp areas within the City of San Diego MSCP Cornerstone Lands, further reducing the footprint for residential development and edge effects.

The Conserved Open Space areas, the 100-foot buffer in the Preserve Edge Plan, and realignment of Proctor Valley Road further ensure preservation of the large blocks of habitat already set aside in the Otay Ranch RMP Preserve and other MSCP Preserve lands adjacent to PV1, PV2, and PV3.

Findings: Within PV2 and PV3, development would not occur within 20.1 acres that are adjacent to the significant blocks of habitat in the existing Otay Ranch RMP Preserve. These 20.1 acres were previously designated for development in the Otay Ranch GDP/SRP and County General Plan; however, they are now proposed to be protected from development as Conserved Open Space with a biological open space easement and, as such, would reduce the Preserve/development interface and contribute to large adjacent blocks of habitat. PV1, PV2, and PV3 would include a 100-foot buffer along the Otay Ranch RMP Preserve, as required in the Preserve Edge Plan to assist in regulating access, non-native predators, non-native species, illumination, drain water, and urban runoff. In addition, the alignment of Proctor Valley Road has been shifted onto PV3. These actions would reduce edge effects along the Preserve/development interface and contribute to the preservation of additional lands adjacent to existing Preserve lands. As noted previously, the Otay Ranch Preserve is a component of the larger MSCP Preserve, which interconnects to other open space blocks under agency ownerships. Thus, the proposed development of PV1, PV2, and PV3 would be consistent with this criterion.

5. ***Provide incentives for development in the least sensitive habitat areas.***

Discussion Specific to PV1, PV2, and PV3: As shown in Section 2.2.1, the majority of PV1, PV2, and PV3 contain sensitive habitat areas, with the exception of 4.2 acres of disturbed habitat and 0.1 acre of existing development. To reduce impacts to sensitive habitats, areas of Conserved Open Space are proposed for PV2 and PV3, which reduce the Development Footprint, as designated under the GDP/SRP, by 20.1 acres. Of the 20.1 acres of Conserved Open Space, 18.2 acres is mapped as coastal sage scrub, which is a

Tier II vegetation community under the BMO, and 1.9 acres is mapped as chamise chaparral, which is a Tier III vegetation community. The 4.3 acres of disturbed habitat/development would be included within the proposed Development Footprint. In addition, the reduction in development in PV3 would result in preservation of a location of a coastal California gnatcatcher pair and additional habitat for the pair.

Discussion in the Context of the Otay Ranch RMP Preserve: As noted previously, the Development Footprint and Otay Ranch RMP Preserve boundary for the Proposed Project were designated in the Otay Ranch GDP/SRP and Otay Ranch PEIR after extensive analysis and consideration of the on-site habitat values, wildlife corridors, topography, and other existing constraints. The planning efforts were established to ensure that development occurred in habitat areas that were deemed to be lower priority than those placed in the 11,375-acre Otay Ranch RMP Preserve. The Development Footprint for the Proposed Project, which includes PV1, PV2, and PV3, conforms to the originally designated Otay Ranch GDP/SRP and Otay Ranch RMP Preserve boundary.

Findings: As described previously, the incentives to develop in the least-sensitive areas of Otay Ranch were provided through designation of the Development Footprint and Otay Ranch RMP Preserve boundary in the Otay Ranch GDP/SRP. PV1, PV2, and PV3 were previously designated as developable areas within the Otay Ranch GDP/SPR after extensive consideration of the on-site habitat values, wildlife corridors, topography, and other existing constraints within the Proposed Project, as well as the entire Otay Ranch overall. Thus, development of PV1, PV2, and PV3 would be consistent with the incentives to develop in the least-sensitive areas within Otay Ranch. In addition, the impacts to sensitive habitat would be further reduced compared to the previously designated Development Footprint by eliminating development of 20.1 acres within PV2 and PV3. Thus, the proposed development within PV1, PV2, and PV3 would be in conformance with this criterion.

6. ***Minimize impacts to narrow endemic species and avoid impacts to core populations of narrow endemic species.***

   Discussion Specific to PV1, PV2, and PV3: One narrow endemic species, variegated dudleya, has been observed within PV3. No other narrow endemic plant or wildlife species were observed within PV1, PV2, or PV3.

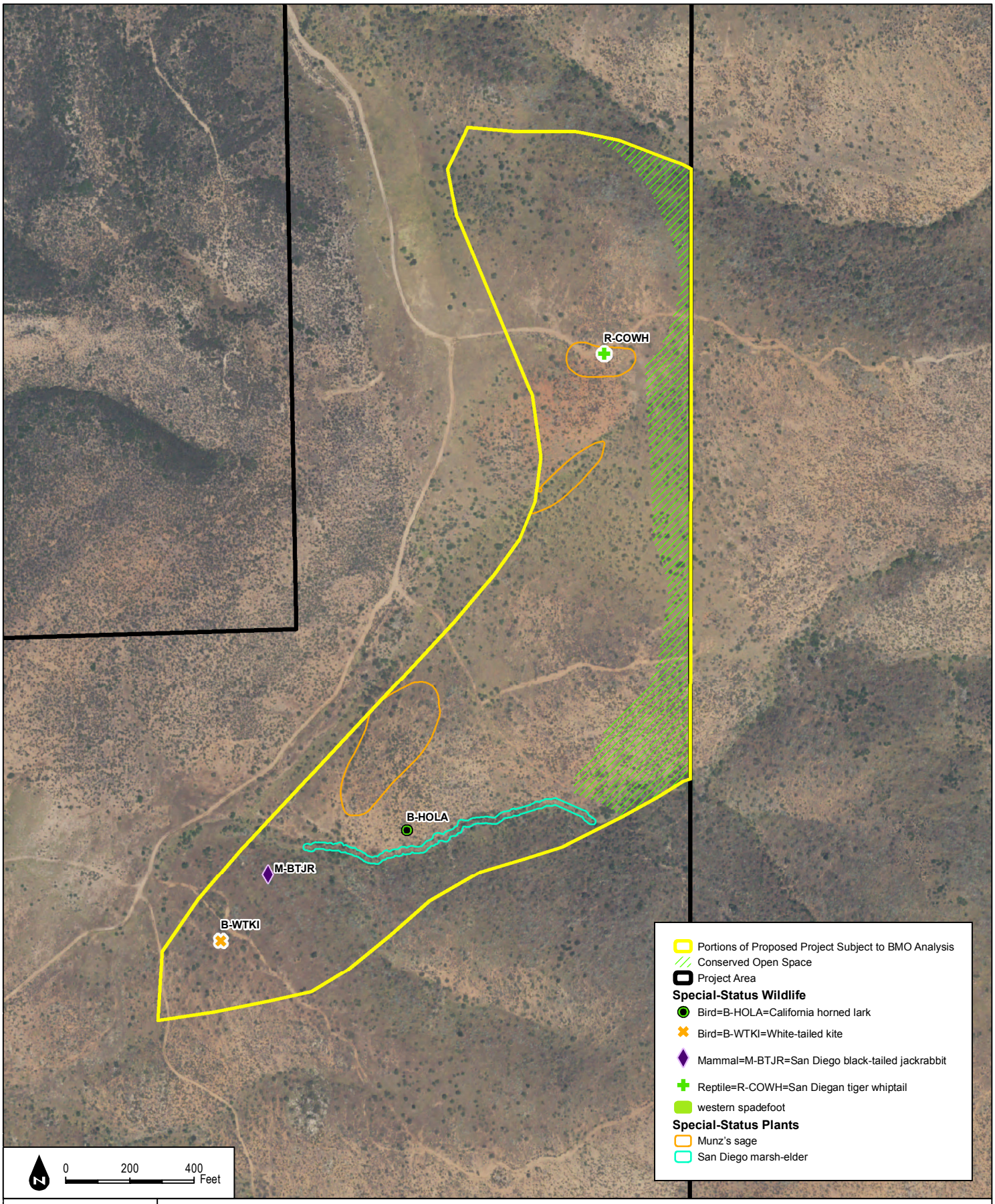
   Variegated dudleya is a narrow endemic species, an MSCP Covered Species, and a County Group A species. Two small populations were observed within PV3: 25 plants were observed within 1 population, and 10 plants were observed in the other (Figures 6a and 6b). All 35 individuals would be impacted by development within PV3. As shown on Figure 6, Sheet 2, of the Otay Ranch RMP, a population of variegated dudleya was

observed within the same general location as those identified in the update surveys conducted for the site[1].

Variegated dudleya is not on the list of critical populations of sensitive plant species within the MSCP County Subarea Plan (Attachment C of the BMO). The two populations located within the PV3 Development Footprint are not considered core populations because they are small populations (10 and 25 plants, respectively) and are not located adjacent to any other populations. In addition, the Otay Ranch RMP did not identify the populations within PV3 as core populations, necessitating a designation as RMP Preserve.

Avoidance of the two small populations of variegated dudleya within PV3 is not feasible for the following reasons. The two populations within PV3 are located approximately 400–500 feet from the Otay Ranch RMP Preserve. A redesign to avoid these two small populations would require the necessary 100-foot Preserve edge, meeting County Fire Department regulations, addressing topographic constraints, and ensuring that the populations were adjacent to the Preserve, which would result in the loss of up to 30 acres of developable land. A redesign to keep the secondary access road for fire safety would result in the loss of approximately 10 acres, but the population would be separated from the Otay Ranch RMP Preserve by a road. As previously discussed, further reduction in the Development Footprint would limit the ability to achieve the density and land use policies set forth in the County's General Plan and the Otay Ranch GDP/SRP. The development could be redesigned to include these populations within the private homeowners' association open space, but carving the populations out of the development and preserving them on their own would isolate the populations from other Preserve lands and expose the variegated dudleya populations to edge effects, which Table 3-5 of the MSCP County Subarea Plan specifically indicates should be minimized.

[1] The Otay Ranch RMP and PEIR determined that the population of variegated dudleya located on PV3, described above, did not warrant conservation.



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SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 6a

Special-Status Species Occurrences

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