# 2.4 Biological Resources

This section of the Environmental Impact Report (EIR) for Otay Ranch Village 14 and Planning Areas 16/19 (Proposed Project) evaluates the Proposed Project's potential impacts to biological resources within the Project Area and vicinity. The analysis focuses on impacts to special-status plant and wildlife species, sensitive vegetation, federally protected wetlands and other jurisdictional aquatic resources, and associated wildlife movement corridors. The analysis also addresses any Proposed Project inconsistencies with relevant planning documents. Potentially significant Proposed Project impacts are summarized in Section 2.4.5, Significance of Impacts Prior to Mitigation, and a summary of impacts following implementation of required mitigation measures is provided in Section 2.4.7, Conclusion.

The Proposed Project is part of the Otay Ranch General Development Plan/Subregional Plan (GDP/SRP). The Otay Ranch GDP/SRP was approved in 1993 and included the Otay Ranch Resource Management Plan (RMP). The Otay Ranch RMP established the boundaries of the 11,375-acre Otay Ranch RMP Preserve, a fully funded, managed Preserve system that mitigates impacts to biological resources within Otay Ranch. The Otay Ranch RMP Preserve is assembled as development occurs in Otay Ranch through the dedication of 1.188 acres of Otay Ranch RMP Preserve for every 1 acre of applicable development (City of Chula Vista and County of San Diego 1996).

Subsequent to the approval of the Otay Ranch GDP/SRP and the creation of the Otay Ranch RMP Preserve, the Multiple Species Conservation Program (MSCP) County of San Diego (County) Subarea Plan (County of San Diego 1997) incorporated the 11,375-acre Otay Ranch RMP Preserve with the MSCP Plan Implementing Agreement, stating "Protection of the areas identified as preserved in the boundaries of the Otay Ranch project including approximately 11,375 acres" was required mitigation for the South County Segment (USFWS et al. 1998). The MSCP County Subarea Plan Implementing Agreement, the contract between all the parties to the MSCP County Subarea Plan, was executed in March 17, 1998.

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) (i.e., the Wildlife Agencies), as signatories to the MSCP County Subarea Plan's contractual Implementing Agreement, determined that the MSCP provides adequate protection for the 85 Covered Species within the dedicated MSCP Preserve, and "take" of such species by participating landowners, as long as it takes place outside of the MSCP Preserve, would not jeopardize the continued survival of the species in question. Specifically, Section 8.0 of the Implementing Agreement states that "The USFWS has found that the MSCP and the Subarea Plan as implemented pursuant to [the Implementing Agreement] do provide such measures, and has issued such findings in support of the granting of the Section 10(a) Permit authorizing the Incidental Take of Covered Species Subject to Incident Take," including measures that "the

Incidental Take will not appreciably reduce the likelihood of the survival and recovery of the Covered Species in the wild" (USFWS et al. 1998). In addition, Section 8.0 states, "The CDFG [now CDFW] has found that the Subarea Plan as implemented pursuant to [the Implementing Agreement] satisfies the legal requirements necessary for the CDFG to issue a CESA/NCCP [California Endangered Species Act/Natural Community Conservation Plan] Authorization authorizing the Incidental Take of Covered Species Subject to Incidental Take, and to provide certainty in the form of specific assurances contained in [the Implementing Agreement]" (USFWS et al. 1998). Section 9.3 of the Implementing Agreement states that, "Implementation of the MSCP through the Subarea Plan in accordance with this Agreement will adequately provide for conservation and protection of the Covered Species Subject to Incidental Take and their habitat in the Subarea in perpetuity" (USFWS et al. 1998). Section 9.3 further states that "this conclusion is based on the biological analysis performed by the USFWS and the CDFG…and their resulting determination of which of those species are adequately protected" (USFWS et al. 1998).

The Proposed Project's Otay Ranch RMP Preserve footprint is consistent with the Preserve established by the Otay Ranch GDP/SRP. Accordingly, the Proposed Project implements the Preserve footprint anticipated by the 11,375-acre Otay Ranch RMP Preserve as depicted in the Otay Ranch RMP, which is consistent with the Hardline Preserve from the MSCP County Subarea Plan Implementing Agreement. Thus, the Proposed Project and the Preserve footprint are consistent with the Implementing Agreement, and, therefore, the Proposed Project's Development Footprint does not jeopardize the continued survival of the 85 Covered Species within the dedicated MCSP County Subarea Plan Preserve.

Conveyance of 776.8 acres to the Otay Ranch RMP Preserve would mitigates for the Proposed Project's impacts to biological resources because this would contribute to the creation of the Otay Ranch RMP Preserve, as required by the Otay Ranch GDP/SRP, Otay Ranch Final Program EIR (Otay Ranch PEIR), and Otay Ranch RMP (Phase I and II), and as anticipated by the MSCP County Subarea Plan Implementing Agreement. Additional mitigation measures are required for impacts to species not covered by the MSCP, indirect and temporary impacts due to construction and edge effects, and impacts to City of San Diego Multi-Habitat Planning Area (MHPA) "Cornerstone Lands." Mitigation is also required by the Biological Mitigation Ordinance (BMO) analysis that was applied to certain portions of the Proposed Project (see Appendix 2.4-1, Biological Resources Technical Report).

Information provided in this section was incorporated from the following sources: the Otay Ranch PEIR (City of Chula Vista and County of San Diego 1993a); Otay Ranch RMP (City of Chula Vista and County of San Diego 1996); MSCP Plan (MSCP 1998); MSCP County Subarea Plan (County of San Diego 1997); the 2011 County of San Diego General Plan Update Program EIR (County of San Diego 2011a); and the Biological Resources Technical Report for Otay

Ranch Village 14 and Planning Areas 16/19 (BTR) prepared by Dudek, which is attached as Appendix 2.4-1 to this EIR.

This EIR tiers from the 1993 Otay Ranch PEIR because the Proposed Project is within the boundaries of the Otay Ranch GDP/SRP, and development of the Project Area was analyzed in the Otay Ranch PEIR (City of Chula Vista and County of San Diego 1993a, 1993b). The Otay Ranch PEIR determined that biological resources impacts as a result of implementation of the Otay Ranch GDP/SRP would be significant and unavoidable (City of Chula Vista and County of San Diego 1993a). The Otay Ranch PEIR included the Otay Ranch RMP and establishment of the Otay Ranch RMP Preserve as mitigation for impacts to biological resources, which pre-dated and was subsequently incorporated into, the MSCP County Subarea Plan and which provides CEQA mitigation for impacts to biological resources within Otay Ranch. The County issued a Statement of Overriding Considerations (County of San Diego 1993) as part of the approval of the Otay Ranch GDP/SRP and certification of the Otay Ranch PEIR, formally acknowledging that the benefits of the Otay Ranch project outweighed the adverse environmental impacts that could not be mitigated to less than significant. This analysis for the Proposed Project is different than that contained within the Otay Ranch PEIR because it specifically considers the Project Area, which is a subset of Otay Ranch.

## 2.4.1 Existing Conditions

This section summarizes the existing biological resources within the Project Area and identifies the resources that could be affected by the Proposed Project. Biological resources include living organisms and the physical environment where they occur. Biological resources are categorized in this section into vegetation communities, jurisdictional resources, wildlife corridors, and special-status plant and wildlife species. This section considers information obtained through a review of pertinent literature and through field reconnaissance, as described in this section.

The Proposed Project is part of the overall Otay Ranch, an approximately 23,000-acre master-planned community in southern San Diego County designed as a series of villages and planning areas. The Project Area is located in unincorporated southwestern San Diego County (see Figure 1-1, Regional Map, and Figure 1-2, Vicinity Map, in Chapter 1, Project Description, Location, and Environmental Setting, of this EIR). In 1993, the County of San Diego, in cooperation with the City of Chula Vista, adopted the Otay Ranch GDP/SRP (City of Chula Vista and County of San Diego 1993b). The Otay GPD/SRP establishes land uses in Otay Ranch and designates parcels for residential development or open space, including parcels that are part of the Proposed Project. These parcels include land in Village 14 and Planning Areas 16/19. The “Inverted L” is excluded from the Proposed Project since it is not owned by the applicant and is in the City of Chula Vista (the property is owned by the Otay Water District and USFWS).

The 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. The majority of the Project Area is within the jurisdictional boundaries of the Otay Ranch GDP/SRP, with the exception of the approximately 85.4-acre off-site improvement area. The 85.4-acre off-site improvement area lies within the jurisdictional boundaries of the City of San Diego's "Cornerstone Lands" (34.5 acres), the MSCP City of Chula Vista Subarea Plan (5.4 acres), CDFW (45.2 acres), County Proctor Valley Road easement (0.3 acres), and private property (0.8 acres) (Figure 2.4-1, Project Area Ownership).

Impacts to areas outside of Village 14 and Planning Areas 16/19 would occur because of improvements and realignment of the existing Proctor Valley Road, construction of a connecting road between the two disconnected parcels in Planning Area 16, and the extension of Whispering Meadows Lane south into the eastern-most portion of Planning Area 16 (Figure 2.4-2, Proctor Valley Site Utilization Plan).

The Project Area is located in Otay Ranch, southwest of the unincorporated community of Jamul and northeast of Bonita (see Figure 1-1). The Otay Reservoir System is located south of the Project Area. Publicly owned open space borders the Project Area to the northwest and southeast. Specifically, the Proposed Project is located primarily southeast of Proctor Valley Road within the Jamul Mountains U.S. Geological Survey 7.5-minute quadrangle, Township 17 South, Ranges 1 East and 1 West, Sections 8, 9, 10, 15, 16, 17, 19, 20, 25, 29, 30, 31, and 32 (Figure 1-2). The approximate center of the Project Area is located at a latitude and longitude of 32°40′57″ north and 116°54′24″ west.

The entire Project Area is undeveloped. On-site elevation ranges from 525 and 1,650 feet above mean sea level. The Project Area is diverse in topography and contains a flat valley along Proctor Valley Road and rolling hills within the remainder of the Project Area. The Project Area is bordered by San Miguel Mountain and the Jamul Mountains immediately to the northwest and southeast, with the foothills of these mountains encroaching into the Project Area. The two eastern portions of Planning Area 16 are located within portions of the Jamul Mountains and contain the highest elevations.

## Literature Review

Special-status plant and wildlife species present or potentially present within the Project Area were identified through an extensive literature search using the following sources: USFWS (2015), CDFW California Natural Diversity Database (CNDDB) (CDFW 2016a, 2016b, 2016c), California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Vascular Plants (CNPS 2017), San Diego Plant Atlas (SDNHM 2017), and Proctor Valley Vernal Pool Restoration Plan (AECOM and Hogan 2012). The literature review also included review of the

list of plant and wildlife species covered under the MSCP Plan (MSCP 1998) and species considered sensitive by the County of San Diego (County of San Diego 2010a). The Soil Survey, San Diego Area, California Part 1 (Bowman 1973) also was reviewed to identify potentially occurring special-status plants based on known soil associations. Native plant community classifications used in this section follow Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the County and noted in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008).

The Proposed Project is located within the boundaries of the MSCP Plan area, the MSCP County Subarea Plan area, and the Otay Ranch RMP area. These documents were reviewed to ensure that the Proposed Project is consistent with conservation goals and policies. The County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a), County of San Diego Report Format and Content Requirements: Biological Resources (County of San Diego 2010b), and the County of San Diego Biological Mitigation Ordinance (County of San Diego 2010c) were also reviewed to ensure consistency.

### Field Reconnaissance

In 2014 through 2017, Dudek biologists conducted a Quino checkerspot butterfly (*Euphydryas editha quino*) habitat assessment, Hermes copper butterfly (*Lycaena hermes*) habitat mapping and surveys, arroyo toad (*Anaxyrus californicus*) habitat assessment, vernal pool branchiopods habitat assessment and surveys, vegetation mapping, and jurisdictional delineation for the Project Area. Focused surveys were also conducted for burrowing owl (*Athene cunicularia*), coastal California gnatcatcher (*Polioptila californica californica*), western spadefoot (*Spea hammondii*), and rare plants.

Dudek reviewed the Project Area to determine whether Proposed Project impacts on golden eagle (*Aquila chrysaetos*), including potential impacts on foraging habitat and nesting sites, would be consistent with those assessed in and covered under the MSCP (and, by extension, the Otay Ranch RMP). As part of the golden eagle analysis, Dudek biologists also consulted raptor specialists at H.T. Harvey & Associates (Appendix C of the BTR (Appendix 2.4-1 to this EIR)).

Quino checkerspot butterfly habitat assessment and focused surveys were conducted by HELIX and its subconsultants in 2015 and 2016. Detailed information regarding those surveys, including the survey schedule, is located in Appendix D of the BTR (Appendix 2.4-1 to this EIR).

Off-site roads that cross through CDFW-owned lands and County easements in Planning Area 16 were surveyed for vegetation and jurisdictional resources in 2016. Since these areas contain suitable habitat for coastal California gnatcatcher, focused surveys for this species were

conducted in 2017. Table 2.4-1, Schedule of Surveys, lists the dates, conditions, and survey focus for each survey performed.

Field surveys were completed according to County guidelines (County of San Diego 2010a, 2010b) and included directed searches and habitat assessments for the County list of potential special-status wildlife and plant species within the Project Area. Special-status species occurrences, habitat, and jurisdictional resources were mapped and analyzed together with the Proposed Project plans.

### Resource Mapping

Vegetation communities and existing land uses on and within 100 feet of the majority of the Project Area were mapped in the field directly onto a 200-foot-scale (1 inch = 200 feet), aerial photograph–based field map of the Project Area. Following completion of the fieldwork, vegetation polygons were transferred to a topographic base and digitized using ArcGIS, and a GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover present within the Project Area was determined. Vegetation community classifications used in this report follow Holland (1986) and Oberbauer et al. (2008), consistent with the latest County of San Diego Report Format and Content Requirements: Biological Resources (County of San Diego 2010a).

### Flora and Fauna

Plant species encountered during the field surveys were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR; formerly CNPS List) follow the CNPS On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2017). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2016), and common names follow the U.S. Department of Agriculture's Natural Resources Conservation Service PLANTS Database (USDA 2016).

In addition to species actually detected, expected wildlife use of the Project Area was determined based on known habitat preferences of local species and knowledge of their relative distributions in the area. Latin and common names of animals follow Crother (2012) for reptiles and amphibians, American Ornithologists' Union for birds (AOU 2016), North American Butterfly Association for butterflies (NABA 2016), and Wilson and Reeder (2005) for mammals.

### Jurisdictional Delineation

Dudek biologists conducted a formal jurisdictional delineation in April and May 2014 for the Project Area. A delineation for the off-site roads located within the CDFW parcels in Village 16

was conducted in November 2016. The delineations were conducted in accordance with the methods prescribed in the 1987 Wetland Delineation Manual (ACOE 1987), the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (ACOE 2008a), and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (ACOE 2008b). The information required to process an approved jurisdictional determination in accordance with the U.S. Army Corps of Engineers (ACOE)/U.S. Environmental Protection Agency Rapanos Guidance (ACOE and EPA 2008) was gathered for the Project Area. During the jurisdictional delineation surveys, the Project Area was walked and evaluated for evidence of an ordinary high water mark, surface water, saturation, wetland vegetation, and nexus to a traditional navigable water of the United States. The extent of any identified jurisdictional areas was determined by mapping the areas with similar vegetation and topography to the sampled locations.

Pursuant to the federal Clean Water Act, ACOE, and the Regional Water Quality Control Board (RWQCB), wetland waters include those supporting all three wetlands criteria described in the ACOE Manual: hydric soils, hydrology, and hydrophytic vegetation. Areas regulated by the RWQCB are generally coincident with those of ACOE, but can also include isolated features that have evidence of surface water inundation pursuant to the California Porter–Cologne Water Quality Protection Act. These areas generally support at least one of the three ACOE wetlands indicators but are considered isolated through the lack of surface water hydrology/connectivity downstream.

A predominance of hydrophytic vegetation, where associated with a stream channel, was used to determine CDFW-regulated riparian areas. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

Features that convey or hold water are regulated by multiple agencies. Federal, state, and local agencies have different definitions and terminology for these types of features. Hereinafter in this section, water-dependent resources regulated by ACOE, RWQCB, and CDFW are collectively referred to as jurisdictional aquatic resources. Terminology used in this section to distinguish each jurisdictional aquatic resource according to the agency that regulates the resource is as follows:

- **ACOE and RWQCB:** "Wetland" and "non-wetland waters." Wetland waters of the United States and non-wetland waters of the United States are subject to regulation by ACOE and RWQCB, pursuant to the Clean Water Act. Within the Project Area, ACOE waters of the United States and RWQCB waters of the United States overlap and, therefore, are combined under the terms, "non-wetland waters" or "wetlands."

- **CDFW:** "Riparian areas" and "streambeds." Lakes, rivers, and streambeds, including any associated riparian habitat, are subject to regulation by CDFW pursuant to the California Fish and Game Code. Within the Project Area, CDFW streambeds are synonymous with ACOE and RWQCB non-wetland waters, and CDFW riparian areas are synonymous with ACOE and RWQCB wetlands.

### Focused Surveys

As stated above under Field Reconnaissance, Dudek biologists and/or other qualified biologists conducted focused surveys and/or habitat assessments for the following sensitive biological resources: focused surveys for rare plants; a habitat assessment, larval host plant survey, and protocol surveys for Quino checkerspot butterfly; focused protocol surveys for coastal California gnatcatcher; a habitat assessment and four-pass protocol survey for burrowing owl; a habitat assessment for arroyo toad; a habitat assessment and protocol surveys for Hermes copper butterfly; nest survey and habitat assessment for golden eagle; a habitat assessment and protocol wet season and dry season surveys for listed large branchiopods (i.e., fairy shrimp); and focused surveys for western spadefoot. Incidental detections of wildlife species, either through sight, calls, tracks, scat, or other signs, were also recorded. Dates and site conditions for the field efforts performed as part of this biological assessment are organized in Table 2.4-1. Refer to Appendix 2.4-1 for a summary of each survey.

#### Focused Surveys and Habitat Assessment for Special-Status Plants

Focused surveys for special-status plant species were conducted in spring 2014. The entire Project Area was surveyed at a rate of 100 acres per person per day. In late spring/early summer 2015, rare plant surveys were conducted with a focus on Otay tarplant (*Deinandra conjugens*). Nearby reference sites were visited to determine the bloom status of this species, and surveys were initiated within the Project Area based on detection of blooming plants within the reference sites. In spring/summer 2016, additional focused surveys for just the applicant-owned portion of the Village 14 Development Footprint were conducted. Reference populations for Otay tarplant and variegated dudleya (*Dudleya variegata*) were reviewed to determine the appropriate survey period. A second season of focused surveys within the areas designated for development in Planning Areas 16/19 were conducted in spring and summer 2017.

## Quino Habitat Assessment and Focused Survey

Quino checkerspot butterfly (*Euphydryas editha quino*) is not a covered species under the MSCP.[1] Dudek conducted a habitat assessment in 2014 and HELIX reviewed the Project Area 2015 and again in 2016.

### *2014 Quino Checkerspot Butterfly Habitat Assessment*

In 2014, Dudek biologists reviewed the Project Area to determine which areas could be excluded as unsuitable for Quino checkerspot butterfly habitat. Following the mapping of excluded areas, those areas not excluded were surveyed to determine if any host plants (*Plantago erecta*, *Plantago patagonica*, *Antirrhinum coulterianum*, *Cordylanthus rigidus*, *Castilleja exserta*, and *Collinsia* spp.) were present. Due to discussion with USFWS staff regarding drought conditions, very little host plant expression, and the general lack of a 2014 Quino checkerspot butterfly flight season, protocol-level adult surveys were not conducted. No Quino checkerspot butterfly or larvae were observed by Dudek during the habitat assessment or host plant mapping in 2014.

### *2015 Quino Checkerspot Butterfly Habitat Assessment*

In 2015, HELIX conducted a habitat assessment, host plant mapping, and focused protocol-level surveys for Quino checkerspot butterfly within portions of the Project Area (Figure 2.4-3a, 2015 Quino Checkerspot Butterfly Survey Area). The habitat assessment focused on the Village 14 Development Footprint and Proctor Valley Road alignments and an appropriate buffer. The HELIX survey area also included portions of CDFW lands adjacent to the Project Area boundary, which are analyzed as part of a Proposed Project alternative. The full extent of the 2015 survey area is shown in Figure 2.4-3a. The buffer was based on the potential for design changes related to the Village 14 Development Footprint at that time (approximately a 100-foot buffer from the potential Village 14 Development Footprint). However, other than the off-site areas described above, these CDFW lands are not included in the Project Area, and, therefore, they are not included in the discussion or results herein. Note also that the 2015 HELIX assessment did not include Planning Areas 16/19, since development was not anticipated in this area at the time the surveys took place. The purpose of the habitat assessment was to identify those portions of the Project Area that do not support suitable habitat for Quino checkerspot butterfly based on USFWS survey protocol (USFWS 2014a), and then exclude them from the

[1] As described in Section 2.3 of the BTR (Appendix 2.4-1), the MSCP addresses the potential impacts of urban growth, natural habitat loss and species endangerment, and creates a plan to mitigate for the potential loss of covered species and their habitat due to the direct impacts of future development of both public and private lands within the MSCP area. The County received from the USFWS certain long-term Take Authorizations which allows the taking of certain covered species, which are also listed species, incidental to land development and other lawful land uses which are authorized by the County. A species that is not an MSCP covered species is not allowed take through the MSCP.

protocol surveys. Of the 415 acres evaluated by HELIX in 2015, 119.2 acres within the Development Footprint were considered excluded areas (see Figure 2.4-3a). Therefore, 295.3 acres were part of the protocol surveys (located in Village 14).

As part of the weekly protocol Quino checkerspot butterfly surveys, HELIX biologists mapped the locations and approximate number of individuals of Quino checkerspot butterfly host plants within the survey area (i.e., within the Village 14 Development Footprint only). Host plant mapping for Otay Ranch RMP Preserve areas was conducted in April and August 2015. These surveys mapped potential Quino checkerspot butterfly resources within the Otay Ranch RMP Preserve. The April 2015 Otay Ranch RMP Preserve host plant mapping was conducted in the areas closest to the Village 14 Development Footprint. The surveys did not include the small disjunct Otay Ranch RMP Preserve parcel southeast of the Development Footprint. Additional host plant surveys within the remaining Otay Ranch RMP Preserve areas were conducted in August 2015. Prior to conducting the August 2015 mapping, HELIX reviewed a current aerial photograph of the Project Area to identify signatures on the aerial photograph of likely open habitat that may contain low vegetative cover and cryptogamic soils. Those areas were then assessed in the field on foot and compared to areas within the Village 14 Development Footprint where 1,000 to 10,000+ host plant individuals were mapped. The areas that contained low vegetative cover and highly developed cryptogamic soils were documented with a GPS unit and mapped as "Potential Quino Resource Areas" (see Appendix D of the BTR (Appendix 2.4-1 to this EIR)).

### *2015 Quino Checkerspot Butterfly Focused Surveys*

HELIX and a team of permitted subconsultants conducted protocol surveys for the Village 14 Development Footprint, including potential Proctor Valley Road realignment areas, over a 7-week period from February 17 through April 2, 2015. Due to a deterioration of host plant conditions and the relatively small number of Quino checkerspot butterflies observed in the County at the time, the 2015 surveys were discontinued during the seventh week. Resource mapping for the Village 14 Development Footprint and off-site areas is representative of butterfly resources, and no Quino checkerspot butterflies were observed. The results of the surveys are discussed further in Section 2.4.3, Analysis of Project Effects and Determination as to Significance, of this section, and they are also provided in Appendix D of the BTR (Appendix 2.4-1 to this EIR).

### *2016 Quino Checkerspot Butterfly Habitat Assessment*

HELIX biologists completed a habitat assessment in accordance with the 2016 Quino Checkerspot Butterfly Survey Protocol that was developed in coordination with USFWS, the County of San Diego, and the Building Industry Association (hereafter referred to as the "2016

USFWS Survey Protocol") (USFWS 2016). The 2016 Quino Checkerspot Butterfly Habitat Assessment occurred in portions of the Project Area, including the Otay Ranch RMP Preserve and off-site development areas, and also included portions of CDFW lands adjacent to the Project Area boundary[2] (Figure 2.4-3b, 2016 Quino Checkerspot Butterfly Survey Area). The purpose of the site assessment was to determine how much of the total Project Area contained habitat that could support Quino checkerspot butterfly, and determine the areas to be surveyed.

Based on this habitat assessment and consultation with USFWS, approximately 15.2 acres of the approximately 820-acre Village 14 Development Footprint (i.e., impacted portions of the Project Area, including on-site and off-site development areas, graded Limited Development Area (LDA; Planning Area 16 only), and impacts within the Otay Ranch RMP Preserve) were considered excluded areas and removed from further consideration in Quino checkerspot butterfly surveys, leaving a total of 804.8 acres to be surveyed for Quino checkerspot butterfly. This same evaluation process indicated that 5.4 acres of the 550.7 acres of non-impacted portions of the Project Area (i.e., Otay Ranch RMP Preserve, LDA, and Conserved Open Space) should also be excluded, leaving 545.1 acres to be surveyed for Quino checkerspot butterfly (see Appendix D of the BTR (Appendix 2.4-1 to this EIR)).

### *2016 Quino Checkerspot Butterfly Host Plant Mapping*

Using GPS units, HELIX biologists mapped the locations and approximate number of individuals of Quino checkerspot butterfly host plants within the 1,350-acre survey area (i.e., within Project Areas defined as suitable habitat) in February 2016, prior to the start of the 2016 flight season. Host plant mapping was updated during the 2016 protocol surveys as changes in field conditions were noted. Mapping of host plants followed the density categories (low, medium, high) and methods (points vs. patches) described for the 2015 habitat assessment. Nearly all of the areas mapped as low or medium consisted of points (i.e., in locations less than 250 square feet). Areas mapped as high also tended to consist of points, but there were some patches as well, ranging from 250 square feet (0.006 acres) to 1.43 acres. Nearly all of the owl's clover (*Castilleja* spp.) was mapped as points, with one patch mapped that was larger than 250 square feet; the owl's clover generally consisted of patches containing fewer than 10 individuals (see Appendix D of the BTR (Appendix 2.4-1 to this EIR)). Permitted Quino checkerspot butterfly biologists considered the host plants that emerged in 2016 to be above average throughout San Diego County; it should be noted that host plant conditions in 2015 were considered to be representative of an exceptional year.

[2] The majority of the CDFW lands are not discussed in this assessment because they are excluded from the Proposed Project. Only the CDFW lands within the Proctor Valley Road alignment and access roads are addressed.

### *2016 Quino Checkerspot Butterfly Protocol Surveys*

HELIX and a team of permitted subconsultants conducted protocol surveys for Quino checkerspot butterfly individuals within the Project Area in 2016. Surveys began on February 24, 2016, and continued through March 31, 2016. Surveys began following the first observation of adult Quino checkerspot butterfly in San Diego County (reported by Korey Klutz of Klutz Biological Consulting) on February 22, 2016, at east Otay Mesa (Quino Biologists United 2016). Surveys were discontinued after the fifth survey week, in coordination with USFWS personnel (Porter 2016), based on the lack of recent regional Quino checkerspot butterfly sightings, which indicated that the flight season along the coastal regions had come to an end.

### Coastal California Gnatcatcher Surveys

Dudek biologists conducted focused protocol surveys for coastal California gnatcatcher in the Project Area in summer and fall 2014 (Figure 2.4-4, California Gnatcatcher Survey Area and Results) (see Appendix E of the BTR (Appendix 2.4-1 to this EIR)). Additional surveys were conducted for off-site roads within Planning Area 16 in 2017. Note that some of the survey areas and observations shown in Figure 2.4-4 are outside of the Project Area. These additional locations were retained to give context for the populations within and surrounding the Project Area. Dudek biologists with federal permits for coastal California gnatcatcher surveys conducted such surveys pursuant to USFWS's Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol (USFWS 1997).

### Burrowing Owl Habitat Assessment and Focused Surveys

A habitat assessment for burrowing owl was conducted based on CNDDB and USFWS records of this species in the vicinity (approximately 3 and 5 miles southwest) and vegetation communities present (i.e., non-native grassland, open coastal sage scrub, disturbed habitat). During the habitat assessment, the entire potential Project Area, including areas that would be directly/indirectly impacted by the Proposed Project, as well as known Preserve areas, were surveyed for suitable burrows and habitat. Both suitable and unsuitable habitat for burrowing owl were mapped. The habitat assessment also served as the first survey pass. Based on the presence of potentially suitable burrows, suitable vegetation communities within the Project Area, and the prior observation of the species in the vicinity, subsequent focused burrowing owl surveys were initiated in areas that contained suitable habitat (Figure 2.4-5, Burrowing Owl Survey Area).

Focused surveys followed Staff Report on Burrowing Owl Mitigation (CDFG 2012) guidelines. Four site visits were conducted April through July 2014 during daylight hours (see Table 2.4-1). The first visit was conducted in April 2014 and the last three visits were timed to occur at least

3 weeks apart during May through July 2014, during the peak of the breeding season.[3] The first visit included searching for the presence of suitable burrows and/or burrow surrogates (greater than 11 centimeters (4 inches) in diameter (height and width) and greater than 150 centimeters (60 inches) in depth). The first survey/habitat assessment included walking straight-line transects spaced 7 to 20 meters (23 to 66 feet) apart. Subsequent surveys were conducted using meandering transects. See Section 2.4.3 for survey limitations.

Based on the surveys described above, the Project Area supports 215 acres of suitable habitat for burrowing owl, consisting of non-native grassland and open areas of coastal sage scrub (including disturbed) that contain burrows, burrow surrogates, or fossorial mammal dens (Figure 2.4-5). No burrowing owls were observed during the focused surveys of the Project Area conducted in 2014. In 2015, burrowing owl sign consisting of white wash, feathers, and pellets were observed at one location in the central portion of the Project Area during rare plant surveys.[4]

### Golden Eagle Foraging and Nesting Habitat Assessment

Golden eagle habitat within the Project Area was assessed based on the habitat types identified in Table 3-5 of the MSCP Plan, and the acreages of the vegetation communities provided in Table 3-3 of the MSCP Plan, entitled Vegetation Community Acres targeted for Conservation within Multi-Habitat Planning Area. Table 3-5 of the MSCP Plan identifies the following vegetation communities as potential foraging/nesting habitat (i.e., suitable habitat) for golden eagle: coastal sage scrub, chaparral, grassland and oak woodland. Table 3-3 of the MSCP Plan includes the vegetation communities within the entire MSCP study area (MSCP 1998).

To determine which vegetation communities within the Project Area should be included in the suitable habitat model, Dudek overlaid the MSCP Plan Preserve boundary with the vegetation mapping used for the entire San Diego County MSCP mapping effort (SANDAG 1995). The MSCP mapping for the entire County relies on Holland (1986) to classify the vegetation communities within the MSCP Plan area. As described in detail in Appendix C of the BTR (Appendix 2.4-1 to this EIR), this exercise confirmed that the San Diego Association of Governments (SANDAG) data matched the acreage presented Table 3-3 of the MSCP Plan. Consequently, this data was used for further analysis.

In addition, Dudek overlaid the MSCP Plan vegetation mapping with current HabiTrak (Habitat Tracking Reporting) data available from the SANDAG SANGIS Regional Data Warehouse (SANDAG 2012). HabiTrak is a GIS-based habitat-tracking tool developed by the Wildlife

[3] In California, the burrowing owl breeding season extends from February 1 through August 31 (CDFG 2012). However, visits were also timed to occur within the commonly accepted breeding season (April 15 through July 15) (CBOC 1997).

[4] See Figure 2.4-10 and Figures 2.4-10a through 2.4-10cc.

Agencies (i.e., CDFW and USFWS) in conjunction with SANDAG and other local agencies that provides a standardized process for tracking and reporting on habitats conserved (i.e., gain) and lost over time (i.e., loss). CDFW is charged with maintaining the dataset.

To evaluate the Proposed Project's potential to affect active golden eagle nests, avian experts at H.T. Harvey & Associates surveyed the Project Area and a 4,000-plus-foot buffer around the Project Area boundary to identify and locate any active golden eagle nests and to observe any golden eagle courtship or nesting activity. As explained in Section 2.4.1.6, Special-Status Wildlife Species, H.T. Harvey & Associates did not locate any active golden eagle nests or observe any golden eagle courtship or nesting behavior. Additionally, H.T. Harvey & Associates conducted periodic 2-day surveys during the 2016 and 2017 golden eagle breeding seasons to document activity at San Miguel Mountain, the Jamul Mountains, and the Proctor Valley areas (see Appendix C of the BTR (Appendix 2.4-1 to this EIR)).

### Arroyo Toad Habitat Assessment

Dudek biologists reviewed aerial maps and selected areas that have the potential to support perennial or intermittent water to focus on during the arroyo toad habitat assessment (Figure 2.4-6, Arroyo Toad Habitat Assessment). The aerial review identified potential suitable habitat in the two areas mapped as open water within Planning Areas 16/19, and at the downstream (southernmost) end of the Project Area that contains a drainage that parallels the off-site portions of Proctor Valley Road located within the City of San Diego Cornerstone Lands. The open water and large drainage, and the upstream portions of three stream channels, were selected for an on-site investigation to determine if there was potential for these areas to support suitable arroyo toad habitat. In total, 6 acres of the Project Area were surveyed as part of the arroyo toad habitat assessment (see Figure 2.4-6).

### Hermes Copper Butterfly Habitat Assessment and Focused Survey

The County biology guidelines state that habitat within 150 meters (492 feet) of a Hermes copper observation should be mapped as occupied habitat (County of San Diego 2010a); therefore, a 500-foot buffer was created around the Village 14 Development Footprint and off-site improvement areas to create the 2015 Hermes copper study area. Four protocol surveys from May through July 2015 were conducted per the County guidelines. No Hermes copper butterflies were observed during these surveys. In 2017, biologists conducted additional habitat assessments and focused Hermes copper butterfly surveys within Planning Areas 16/19 and those areas outside of the Development Footprint. Within these study areas, redberry buckthorn (*Rhamnus crocea*) within 15 feet of Eastern Mojave buckwheat (*Eriogonum fasciculatum*) was mapped as potential habitat, and that potential habitat was surveyed (Figure 2.4-7, Hermes Copper Survey Area). Based on the 2015 habitat assessment, 17 acres of the Hermes copper study area was

determined to contain potential habitat and was surveyed according to County of San Diego protocol survey guidelines (County of San Diego 2010a). Based on the 2017 habitat assessment, 20 acres of the Hermes copper study area was determined to contain potential habitat and was surveyed according to County of San Diego protocol survey guidelines. Four survey passes were conducted May through July 2017; no Hermes copper butterflies were observed during the 2017 protocol surveys.

### San Diego and Riverside Fairy Shrimp Surveys

San Diego and Riverside fairy shrimp are both federally listed endangered species, and both are listed as covered species under the MSCP. However, a 2006 lawsuit against the City of San Diego challenged the City's MSCP under the federal Endangered Species Act (ESA), claiming the plan did not provide adequate protections for vernal pools and listed fairy shrimp. (*Southwest Center for Biological Diversity v. Bartel*, 470 F.Supp.2d 1118, 1130-33 (S.D. Cal. 2006).) Because the court in that case invalidated the City's MSCP coverage for fairy shrimp, and because the County's MSCP includes fairy shrimp coverage provisions similar to those in the City's plan, the County has taken the position that the County's MSCP does not provide ESA take coverage for San Diego or Riverside fairy shrimp. This EIR, however, was prepared to provide technical support for the County's *CEQA* analysis and does not address "take" issues per se, as those are covered under a different statute, namely the federal ESA.

An assessment and mapping of potential features (i.e., vernal pools, ephemeral basins, and road ruts) were conducted throughout the study area in April and June 2014. The study area used for conducting vernal pool branchiopods habitat assessment and surveys included areas outside of the Project Area. Following the onset of winter rainstorms in December 2014, Dudek biologists holding federal permits (i.e., 10(a)(1)(A) Recovery Permit) for fairy shrimp implemented a protocol-level wet-season survey in accordance with USFWS survey protocol for listed fairy shrimp species (USFWS 1996). A total of 11 survey sampling visits were completed throughout the 2014/2015 wet season, which ceased when features were observed dry again in June 2015. A total of 81 features were identified and sampled during the 2014/2015 wet-season survey. These were mapped with a GPS unit and the presence of fairy shrimp was recorded (Figures 2.4-8a through 2.4-8i, Fairy Shrimp Survey Area and Results). Of the identified features, only one, Feature B2 located outside of the Village 14 Development Footprint, would be considered a vernal pool. The remaining features are categorized as road ruts or ephemeral basins. The results of these surveys are discussed further in Section 4.5.3.1 of the BTR. The survey report itself is provided in Appendix F of the BTR (Appendix 2.4-1 to this EIR).

Subsequent to the 2014/2015 wet-season survey, dry-season sampling was authorized by USFWS and was conducted according to the 2015 guidelines. The soil sample collection was conducted by Dudek biologist Thomas Liddicoat (Permit No. TE139634) on October 22, 2015

(Table 2.4-1). Based on the feature location in the study area (i.e., on site or off site) and the detection of fairy shrimp during the 2014/2015 wet-season survey, dry soil samples were collected from the bottom of 40 of the 81 known features (Figures 2.4-8a through 2.4-8i). Results of the surveys are discussed in Section 2.4.1.6.

### Western Spadefoot

To provide a better understanding of the distribution of western spadefoot within and adjacent to the Project Area, focused surveys were conducted during the 2016/2017 winter rain season. Spadefoot egg masses, tadpoles, and metamorphs were observed in a few areas adjacent to Proctor Valley Road and outside of the Project Area by Dudek biologists while conducting focused surveys for vernal pool fairy shrimp over a 2-year period. The presence of this species adjacent to but outside of the Project Area prompted the need for focused surveys within the Project Area. Based on past surveys and Dudek's familiarity of the Project Area, Dudek biologists determined that there are 78 potential suitable habitat areas (i.e., pools/ponds) for western spadefoot within the Project Area (Figure 2.4-9, Proposed Spadefoot Survey Areas). Data collected for each pool area that was found to support spadefoot included pool size, water depth, pool condition, water temperature, vegetation, and other species present. Once a pool was identified as supporting spadefoot, that pool was not surveyed during subsequent field efforts. Results of the surveys are discussed in Section 2.4.1.6.

### Survey Limitations

Direct observations of special-status plants and wildlife species were recorded during vegetation mapping, jurisdictional delineations, rare plant surveys, focused wildlife surveys, and habitat assessments. In addition to direct observations of wildlife species, signs such as tracks and scat were recorded. Special-status species observed during these surveys were recorded and/or mapped.

San Diego County experienced drought conditions over the last 5 years that affected plant growth. However, more recent years, particularly 2017, have seen an increase in rainfall. Fluctuations in annual plant populations and effect rates of germination are associated with variations in rainfall and other climatic conditions. Therefore, in addition to years of focused surveys, an emphasis was placed on conducting habitat assessments for special-status plant species (see Appendix 2.4-1). In addition, reference checks were conducted in which populations of rare plants were observed within the project vicinity to determine appropriate survey timing.

Focused wildlife surveys were conducted per the appropriate protocols, where required, which resulted in wildlife surveys being conducted during the day. Birds represent the largest component of the vertebrate fauna. Since most birds are active in the day, diurnal surveys maximize the number of observations of this portion of the fauna. Daytime surveys, however,

may result in fewer observations of animals that are more active at night, such as mammals, including bats. Similarly, many species of reptiles and amphibians are nocturnal or cryptic in their habits and may be difficult to observe using standard meandering transects.

To account for survey limitations, biologists identified special-status wildlife species that could occur in the Project Area based on pertinent distribution and habitat preference literature and recorded off-site observations. These species were then analyzed based on their potential to occur. This section provides adequate measures to avoid and minimize impacts to such species.

With specific regard to small mammal trapping, there is no indication that such an effort was necessary, given that the only listed mammal species that occurs within the region and for which suitable habitat occurs within the Project Area is the federally listed endangered Pacific pocket mouse (*Perognathus longimembris pacificus*). This species is restricted to the coast; therefore, the Project Area is outside the known range of Pacific pocket mouse, and the species is not expected to occur in the Project Area. Due to the low potential for bats to roost within the Development Footprint, focused surveys for bats were not conducted. Small patches of potential tree roosting habitat for bat species and rock outcrops that could provide roosting areas are located within the Otay Ranch RMP Preserve (eucalyptus trees in Planning Area 16 and oak riparian forest in Village 14), non-graded LDA portions of the Project Area in the most eastern portion of Planning Area 16 and within the adjacent Conserved Open Space (small rock outcrops), and outside of the Project Area. Large boulders, caves, or cliffs were not observed within the Project Area. These features may occur outside of the Project Area within the adjacent mountains. Although there is foraging habitat within the Project Area, including the Development Footprint, any potential roosting habitat (large trees or rock outcrops) is located outside of the Development Footprint.

#### *2.4.1.1 Regional Context*

The Otay Ranch RMP is a component of the Otay Ranch GDP/SRP and establishes the mechanism by which property owners are to mitigate impacts related to overall Otay Ranch implementation, including biological impacts. The Otay Ranch RMP also provides for the conservation and management of the entire 11,375-acre Otay Ranch RMP Preserve (City of Chula Vista and County of San Diego 1996).

Otay Ranch is also located within the boundaries of the MSCP Plan area, which is a comprehensive multi-jurisdictional habitat conservation planning program for the southwestern portion of San Diego County. Local jurisdictions and special districts implement their respective portions of the MSCP Plan through Subarea Plans. The Proposed Project, except for some off-site improvement areas, is located within the South County portion of the MSCP County Subarea Plan, which was adopted in 1997 (County of San Diego 1997). The MSCP County Subarea Plan is

discussed in more detail in Section 2.4.2.3. Implementation of the Proposed Project would result in conveyance of 776.8 acres to the Otay Ranch RMP Preserve, and thus, the MSCP Preserve.

#### *2.4.1.2 Habitat Types/Vegetation Communities*

The Project Area, which totals 1,369.0 acres, is dominated by chaparral and sage scrub, with additional representation of grassland. Various wetland plant communities also occur in the Project Area. The vegetation communities and land cover types within the Project Area are described below. Acreages are presented in Table 2.4-2, Vegetation Communities and Land Cover Types in the Project Area, and Table 2.4-3, Vegetation Communities and Land Cover Types by Off-Site Improvement Area. Spatial distributions of vegetation communities are presented in Figure 2.4-10, Biological Resources – Legend, and Figures 2.4-10a through 2.4-10cc, Biological Resources.

In September 2010, the California Department of Fish and Game (now CDFW) published the *List of California Vegetation Alliances and Associations* (CDFG 2010), which uses the scientific name of the dominant species in that alliance as the alliance name, and includes a global and state rarity rank based on the NatureServe Standard Heritage Program methodology (NatureServe 2014). The conservation status of a vegetation community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, N = national, and S = subnational). The numbers have the following meaning (NatureServe 2014):

1 = critically imperiled

2 = imperiled

3 = vulnerable to extirpation or extinction

4 = apparently secure

5 = demonstrably widespread, abundant, and secure

For example, G1 would indicate that a vegetation community is critically imperiled across its entire range (i.e., globally). A rank of S3 would indicate the vegetation community is vulnerable and at moderate risk within a particular state or province, although it may be more secure elsewhere (NatureServe 2014). Because NatureServe ranks vegetation communities at the global level, they have few rankings at the state level available. However, the List of California Vegetation Alliances and Associations (CDFG 2010) includes state-level rarity rankings (i.e., the subnational (S) rank) for vegetation communities. The List of California Vegetation Alliances and Associations (CDFG 2010) is considered the authority for ranking the conservation status of vegetation communities in California.

### Granitic Chamise Chaparral (37210)

Within the Project Area, granitic chamise chaparral is typically characterized by a relatively monotypic stand of chamise, with some diversity of other shrubs and herbaceous cover. Areas where native species were co-dominant with non-native grasses were mapped as disturbed granitic chamise chaparral. Granitic chamise chaparral totals 308.6 acres within the Project Area (this includes 0.8 acre of disturbed form). It is the most dominant vegetation community within the Village 14 Development Footprint. This vegetation community also occurs within the off-site improvement areas along Proctor Valley Road Central and Proctor Valley Road North (Figures 2.4-10 through 2.4-10cc).

### Granitic Southern Mixed Chaparral (37121)

Within the Project Area, areas mapped as southern mixed chaparral are dominated by chamise, laurel sumac (*Malosma laurina*), woolyleaf ceanothus (*Ceanothus tomentosus*), scrub oak (*Quercus berberidifolia*), and toyon (*Heteromeles arbutifolia*). A total of 99.2 acres of granitic southern mixed chaparral occurs within the Project Area. Almost all of this vegetation community occurs within Planning Areas 16/19, with 4.3 acres occurring within the off-site improvement area along Proctor Valley Road South (Figures 2.4-10 through 2.4-10cc).

### Diegan Coastal Sage Scrub (32500)

Areas mapped as Diegan coastal sage scrub within the Project Area are dominated by coastal sagebrush, San Diego County viguiera (*Viguiera laciniata*), laurel sumac, sage (*Salvia* spp.), and Eastern Mojave buckwheat. Areas where native species were co-dominant with non-native grasses were mapped as disturbed Diegan coastal sage scrub. Diegan coastal sage scrub is the most dominant vegetation community within the Project Area, totaling 804.1 acres (includes disturbed forms). Of this total, approximately 380.8 acres is located within Village 14 and 384.9 acres is located within Planning Areas 16/19, with remainder located in the off-site improvements areas. 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 (Figures 2.4-10 through 2.4-10cc).

### Diegan Coastal Sage Scrub – *Baccharis* Dominated (32530)

Areas mapped as coastal sage scrub – *Baccharis* within the Project Area are dominated by either coyotebrush or desert baccharis, but have other coastal sage species such as Menzies' goldenbush (*Isocoma menziesii*), Eastern Mojave buckwheat, or sage (*Salvia* spp.) present. Areas where native species were co-dominant with non-native grasses were mapped as disturbed coastal sage scrub – *Baccharis* dominated. A total of 1.3 acres of coastal sage scrub – *Baccharis* (includes disturbed forms) occurs within the Project Area; it is located in the off-site

improvement areas along Proctor Valley Road in the southern portion of the Project Area (City of San Diego "Cornerstone Lands") (Figures 2.4-10 through 2.4-10cc).

### Non-Native Grasslands (42200)

Non-native grassland generally occurs in the flatter portions of the valley throughout the Project Area (Figures 2.4-10 through 2.4-10cc). A total of 112.2 acres of non-native grassland occurs within the Project Area. Of this total, 62.4 acres occurs within Planning Areas 16/19 (Table 2.4-2).

### Cismontane Alkali Marsh (52310)

Cismontane alkali marsh was mapped intermittently in many of the drainages in the Project Area. The intermittent nature of its occurrence presumably is due to changes in topography that cause rapid draining in some areas and seasonal inundation in others. Areas supporting cismontane alkali marsh are evidenced by the presence of San Diego marsh-elder, and occasionally southwestern spiny rush. Saltgrass (*Distichlis spicata*) was sometimes present along the edges of the cismontane alkali marsh. Areas where native species were co-dominant with non-native grasses were mapped as disturbed cismontane alkali marsh. A total of 7.8 acres of cismontane alkali marsh occurs within the Project Area. Of this total, 6.7 acres is mapped along various drainages occurring primarily in the northern and southern portions of the Planning Areas 16/19 Otay Ranch RMP Preserve. A small portion of this community occurs within the central portion of the Village 14 Otay Ranch RMP Preserve. This community does not occur within the off-site improvement areas (Figures 2.4-10 through 2.4-10cc).

### Mulefat Scrub (63310)

Areas mapped as mulefat scrub within the Project Area are dominated by mulefat and are typically found along drainages that receive intermittent water throughout the year. There are small patches of mulefat scrub mapped along the northern and southern portions of the Project Area (Figures 2.4-10 through 2.4-10cc). A total of 1 acre of mulefat scrub occurs within the Project Area. Of that total, 0.7 acres occurs within areas designated as Otay Ranch RMP Preserve (Village 14 and Planning Areas 16/19), and small patches occur within the off-site improvement areas along the southern portion of Proctor Valley Road (Table 2.4-2).

### Coastal and Valley Freshwater Marsh (52410)

Areas within the Project Area mapped as freshwater marsh are dominated by southern cattail (*Typha domingensis*) and indicate areas where water is present for longer periods of time. A total of 0.4 acre of coastal and valley freshwater marsh occurs within the Project Area in the off-site improvement areas. Three areas of freshwater marsh are mapped along Proctor Valley Road in

the very southern portion of the Project Area (Figures 2.4-10 through 2.4-10cc). These areas are within off-site improvement areas associated with the realignment of Project Valley Road South.

### Open Water (64100)

Previous aerial photographs from 1994 through 2016 of the Project Area show one area within the easternmost parcel in Planning Area 16 as inundated with water at various times; therefore, this location was mapped as open water (Google Earth 2017) (Figures 2.4-10 through 2.4-10cc). During the 2014 surveys, this location did not contain water and was unvegetated with non-native grassland and some shrubs indicative of coastal sage scrub. During 2017 focused surveys, this area was inundated with water and, therefore, the open water designation was retained.

### Southern Coast Live Oak Riparian Forest (61310)

A total of 0.7 acres of southern coast live oak riparian forest occurs within the Project Area. One area of southern coast live oak riparian forest is mapped along the eastern edge of the Village 14 Otay Ranch RMP Preserve in a drainage that flows in an east/west direction to the Proctor Valley drainage (Figures 2.4-10 through 2.4-10cc). This is the only instance of this vegetation community, and it is contained within the Otay Ranch RMP Preserve.

### Southern Willow Scrub (63320)

A total of 0.3 acre of southern willow scrub occurs within the Project Area. Areas mapped as southern willow scrub are dominated by arroyo willow (*Salix lasiolepis*). Two small polygons of southern willow scrub are mapped in the northern portion of the Project Area within the Otay Ranch RMP Preserve in Planning Area 16 (Figures 2.4-10 through 2.4-10cc).

### Non-Vegetated Floodplain or Channel (64200)

One mapped non-vegetated channel occurs along Proctor Valley Road South, which connects to the large unnamed wash that feeds into Lower Otay Reservoir. Other non-vegetated channels occur throughout the Project Area but have been mapped as overlays within vegetation communities. These resources are discussed more in Section 2.4-3. Non-vegetated floodplain or channel does not have a global or state rank.

### Eucalyptus Woodland (79100)

A total of 2.9 acres of eucalyptus woodland occurs within the Project Area. There are five small separate areas mapped as eucalyptus woodland throughout the Project Area, including several patches in the northern portion of the Planning Areas 16/19 Otay Ranch RMP Preserve, and one patch along Proctor Valley Road South (Village 14) (Figures 2.4-10 through 2.4-10cc).

Urban/Developed (12000)

Within the Project Area, the majority of urban/developed areas is associated with Proctor Valley Road (Figures 2.4-10 through 2.4-10cc).

Disturbed Habitat (11300)

Within the Project Area, dirt roads, prominent dirt trails, and off-highway-vehicle areas are mapped as disturbed habitat (Figures 2.4-10 through 2.4-10cc).

### *2.4.1.3 Flora*

A total of 352 vascular plant species, consisting of 254 native species (72%) and 98 non-native species (28%), were recorded within the Project Area during the 2014, 2015, 2016, and 2017 focused surveys. Of the total species observed, 22 of these species are considered special status (nine of which are MSCP Covered Species) and are discussed in further detail in Section 2.4.1.5. In addition, although it was not observed, there is critical habitat for spreading navarretia within the Project Area. Appendix G of the BTR (Appendix 2.4-1 to this EIR) includes a cumulative list of plant species that have been observed within the Project Area, including special-status species.

### *2.4.1.4 Fauna*

The Project Area supports habitat for common upland and riparian species. Chaparral, coastal scrub, woodland, riparian, and non-native habitats (e.g., eucalyptus and non-native grassland) within the Project Area provide foraging and nesting habitat for migratory and resident bird species and other wildlife. Rock outcroppings, chaparral, coastal scrub, and woodlands within the Project Area provide cover and foraging opportunities for wildlife species, including reptiles and mammals.

There were 156 species observed in the Project Area during the 2014, 2015, 2016, and 2017 surveys. Of the total species observed, 28 (18%) of these are considered special status (12 of which are MSCP Covered Species). Species observed within the Project Area were recorded during focused surveys, habitat assessments, vegetation mapping, and sensitive plant surveys. Given the resource management context of the Project Area (i.e., level of study for MSCP County Subarea Plan and Otay Ranch GDP/SRP), this level of wildlife survey information is adequate to evaluate significant Proposed Project impacts to biological resources. A cumulative list of wildlife species observed during these surveys is provided in Appendix H to the BTR (Appendix 2.4-1). Species richness in the Project Area is moderate due to its size, the amount of undeveloped land, and the number of native upland habitats. Species richness is generally increased with the presence of more habitat types and ecotones. The Project Area is dominated by two habitat types: Coastal sage scrub comprises 59% and chamise chaparral comprises 23%

of the Project Area. Although species richness is moderate, the number of species and the wildlife population levels (i.e., number of individuals) is typical for undeveloped areas in this region, particularly those areas that support multiple upland habitat types. The Project Area supports numerous special-status wildlife species, which are addressed in Section 2.4.1.6.

### Reptiles and Amphibians

Eleven common reptile species were observed within and adjacent to the Project Area during surveys. Commonly observed reptiles included western fence lizard (*Sceloporus occidentalis*) and common side-blotched lizard (*Uta stansburiana*).

Special-status reptiles observed include San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), red diamond rattlesnake (*Crotalus ruber*), rosy boa (*Lichanura trivirgata*), and Blainville's horned lizard (*Phrynosoma blainvillii*). Only Blainville's horned lizard is an MSCP Covered Species. One special-status amphibian species was documented within the Project Area during surveys: western spadefoot, which is not an MSCP Covered Species. Special-status species are discussed further in Section 2.4.1.6.

### Birds

Seventy-five bird species were observed within the Project Area. Commonly observed birds included western meadowlark (*Sturnella neglecta*), western scrub-jay (*Aphelocoma californica*), red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), turkey vulture (*Cathartes aura*), wrentit (*Chamaea fasciata*), common raven (*Corvus corax*), greater roadrunner (*Geococcyx californianus*), California towhee (*Melozone crissalis*), northern mockingbird (*Mimus polyglottos*), ash-throated flycatcher (*Myiarchus cinerascens*), phainopepla (*Phainopepla nitens*), spotted towhee (*Pipilo maculatus*), bushtit (*Psaltriparus minimus*), and Bewick's wren (*Thryomanes bewickii*).

Special-status birds observed included Cooper's hawk (*Accipiter cooperii*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), grasshopper sparrow (*Ammodramus savannarum*), golden eagle, burrowing owl (sign), red-shouldered hawk (*Buteo lineatus*), turkey vulture, northern harrier (*Circus cyaneus*), California horned lark (*Eremophila alpestris actia*), loggerhead shrike (*Lanius ludovicianus*), coastal California gnatcatcher, western bluebird (*Sialia mexicana*), and common barn-owl (*Tyto alba*). Seven of the bird species observed are MSCP Covered Species: Cooper's hawk, southern California rufous-crowned sparrow, golden eagle, burrowing owl (sign), northern harrier, coastal California gnatcatcher, and western bluebird. Special-status species are discussed further in Section 2.4.1.6.

## Mammals

Fourteen mammal species were detected (directly or indirectly) during biological surveys within and adjacent to the Project Area. Commonly observed mammals included desert cottontail (*Sylvilagus audubonii*), brush rabbit (*Sylvilagus bachmani*), California ground squirrel (*Spermophilus (Otospermophilus) beecheyi*), and coyote (*Canis latrans*).

Special-status mammals observed included San Diego black-tailed jackrabbit (*Lepus californica bennettii*), mule deer (*Odocoileus hemionus*), cougar (*Puma concolor*), and American badger (sign; *Taxidea taxus*). Special-status species are discussed further in Section 2.4.1.6. Three of the mammal species that observed are MSCP Covered Species: mule deer, cougar, and American badger.

Bats occur throughout most of Southern California and may use any portion of the Project Area as foraging habitat. No maternity roosts have been observed at the Project Area. There is high potential for bat species to day roost within the eucalyptus trees within the Otay Ranch RMP Preserve in Planning Area 16, in the small rock outcrops in non-graded LDA and adjacent to Conserved Open Space along the eastern edge of Planning Area 16, and in the oak riparian forest in the Otay Ranch RMP Preserve within Village 14. These species include pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus blossevillii*), Yuma myotis (*Myotis yumanensis*), and big free-tailed bat (*Nyctinomops macrotis*). Since the potential roosting habitat for these bat species occurs outside of the Development Footprint and would not be impacted by the Proposed Project, focused surveys for bats were not conducted. In Section 2.4.1.6, and also in Appendix H of the BTR (Appendix 2.4-1 to this EIR), the potential for bat species to occur within the Project Area is analyzed based on available habitat, known occurrences, and ranges of the various species. Impacts to bats were based on impacts to potential foraging habitat.

## Invertebrates

Fifty-five invertebrate species were observed within and adjacent to the Project Area during biological surveys. Commonly observed species included painted lady (*Vanessa cardui*), Behr's metalmark (*Apodemia mormo virgulti*), funereal duskywing (*Erynnis funeralis*), checkered white (*Pontia protodice*), Sara orangetip (*Anthocharis sara*), and tarantula hawk (*Pepsis* sp.). Two fairy shrimp species were observed in some of the features in the Project Area: versatile fairy shrimp (*Branchinecta lindahli*) and the federally endangered San Diego fairy shrimp (*B. sandiegonensis*) (Figures 2.4-8a through 2.4-8i) (see Section 2.4.1.6).

Fish

No fish species were documented during the numerous surveys within the Project Area. There are no large areas of open water or perennial water sources within the Project Area that would support fish species.

### *2.4.1.5 Special-Status Plant Species*

Endangered, rare, or threatened plant species, as defined in CEQA Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status plant species" in this section. They consist of endangered or threatened plant species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA) (CDFW 2016b), plant species with a CRPR 1 through 4 (CDFW 2016c; CNPS 2017), and plant species considered "sensitive" by the County of San Diego (Table 2 in County of San Diego 2010a).

In considering rarity, the CNPS Inventory of Rare and Endangered Vascular Plants of California was the primary reference (CNPS 2017). Use of the CNPS Inventory is helpful because it clearly defines levels of endangerment and rarity for all of the species addressed in the CNPS Inventory. The CNPS Inventory divides its subject taxa into four ranks: CRPR 1 (which is further divided into 1A and 1B), 2 (which is further divided into 2A and 2B), CRPR 3, and CRPR 4. Plants with a CRPR of 1A are presumed extirpated or extinct because they have not been seen or collected in the wild in California for many years. Plants with a CRPR of 1B are rare throughout their range, with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. Plants with a CRPR of 2A are presumed extirpated because they have not been observed or documented in California for many years. Except for being common beyond the boundaries of California, plants with a CRPR of 2B would have been ranked 1B. Plants with a CRPR of 3 have not had sufficient information collected to assign them to one of the other ranks or to reject them. Nearly all of the plants constituting CRPR 3 are taxonomically problematic. All of the plants constituting CRPR 1A, 1B, 2A, 2B, and 3 meet the definitions of CESA of the California Fish and Game Code, and are eligible for state listing. Plants with a CRPR of 4 are of limited distribution or infrequent throughout a broader area in California, and their status should be monitored regularly. Should the degree of endangerment or rarity of a CRPR 4 plant change, they are transferred to a more appropriate rank.

Some of the plants constituting CRPR 4 meet the definitions of CESA of the California Fish and Game Code, and few, if any, are eligible for state listing; this rank is considered to be a watch list. Nevertheless, many of them are significant locally, and it is strongly recommended that CRPR 4 plants be evaluated for impact significance during preparation of environmental documents relating to CEQA, or those considered to be functionally equivalent to CEQA, based

on CEQA Guidelines Section 15125(c) and/or 15380. This may be particularly appropriate for the following:

- The type locality of a CRPR 4 plant
- Populations at the periphery of a species' range
- Areas where the taxon is especially uncommon
- Areas where the taxon has sustained heavy losses
- Populations exhibiting unusual morphology or occurring on unusual substrates

In addition to CRPR 1–4 species, plant species listed on County Lists A through D (County of San Diego 2010a) also were included in the consideration of sensitive plant species for this analysis.

Focused plant surveys were conducted in the Project Area to determine the presence or absence of special-status plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 (14 CCR 15000 et seq.). Special-status plant species directly observed during focused surveys or known to occur in the surrounding region are described in Appendix I-1 to the BTR (Appendix 2.4-1 to this EIR), which describes their known occurrences or potential to occur within the Project Area based on their general biology (primary habitat associations, life form, blooming period, and known elevation range).

Sensitive plant species directly observed within the Project Area include the following MSCP Covered Species and County List A species: Otay manzanita (*Arctostaphylos otayensis*), San Diego goldenstar (*Bloomeria clevelandii*), Orcutt's brodiaea (*Brodiaea orcuttii*), Dunn's mariposa-lily (*Calochortus dunnii*, narrow endemic), delicate clarkia (*Clarkia delicata*), San Miguel savory (*Clinopodium [=Satureja] chandleri*), Otay tarplant (*Deinandra conjugens*), variegated dudleya (*Dudleya variegata*, narrow endemic), San Diego barrel cactus (*Ferocactus viridescens*), Gander's pitcher sage (*Lepechinia gander*, narrow endemic), and Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*).

Special-status species not covered by the MSCP observed within the Project Area included San Diego sagewort (*Artemisia palmeri*; County List D), western dichondra (*Dichondra occidentalis*; County List D), Palmer's grapplinghook (*Harpagonella palmeri*; County List D), graceful tarplant (*Holocarpha virgata* ssp. *elongata*; County List D), San Diego marsh-elder (*Iva hayesiana*; County List B), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*; County List D), golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*; County List D), Munz's sage (*Salvia munzii*; County List B), ashy spike-moss (*Selaginella cinerascens*; County List D), San Diego County viguiera (County List D), and San Diego County needle grass (*Stipa [=Achnatherum] diegoensis*; County List D).

Additional plant species with a high or moderate potential to occur are included in Appendix I-1 to the BTR (Appendix 2.4-1). Plants that are not expected to occur or have low potential to occur are included in Appendix I-2 to the BTR. The appendices include all MSCP Covered Species and County Lists A–D species (County of San Diego 2010a), as well as species recorded in the Jamul Mountains quadrangle and the surrounding eight quadrangles (CDFW 2016c; CNPS 2017; SDNHM 2017; USFWS 2016). The potential-to-occur determination is based on elevation, habitat, and soils present within the Project Area; Dudek's knowledge of biological resources in the area; and regional distribution of each species.

### County List A and B Species

Plants categorized as County List A species are plants that are rare, threatened, or endangered in California and elsewhere. Plants categorized as County List B are rare, threatened, or endangered in California, but more common elsewhere (County of San Diego 2010a). County List A and B species that have been observed in the Project Area are described below and included in Appendix I-1 to the BTR (Appendix 2.4-1 to this EIR). The location of the populations within the Otay Ranch RMP Preserve, the Development Footprint (including graded LDA), the LDA (no grading), or Conserved Open Space is described for each species and shown in Figures 2.4-10 through 2.4-10cc. Additional species that have moderate or high potential to occur are described in more detail in Appendix I-1 to the BTR (Appendix 2.4-1 to this EIR). Many of the List A species observed within the Project Area are also MSCP Covered Species. Impacts to plants that are MSCP Covered Species are considered mitigated upon conveyance of the prescribed amount of land to the Otay Ranch RMP Preserve.

#### Otay Manzanita (*Arctostaphylos otayensis*), List A, MSCP Covered Species

Several populations totaling approximately 627 Otay manzanita shrubs were observed within the Otay Ranch RMP Preserve in Planning Areas 16 (Figures 2.4-10 through 2.4-10cc).

#### San Diego Goldenstar (*Bloomeria clevelandii*), List A, MSCP Covered Species

San Diego goldenstar was recorded at several locations totaling approximately 4,952 individuals. Approximately 2,807 plants are located within Village 14; of this total, 742 individuals were identified within the Development Footprint and 2,065 individuals within the Otay Ranch RMP Preserve. Approximately 2,145 plants are in Planning Area 16; of this total, 33 individuals were identified within the Development Footprint, 836 individuals within the Otay Ranch RMP Preserve, 588 individuals within the LDA, and 688 individuals within the Conserved Open Space (Figures 2.4-10 through 2.4-10cc).

### Orcutt's Brodiaea (*Brodiaea orcuttii*), List A, MSCP Covered Species, 1B.1

Approximately 83 individuals were observed within the Planning Area 16 Development Footprint (Figures 2.4-10 through 2.4-10cc).

### Dunn's Mariposa-Lily (*Calochortus dunnii*), List A, MSCP Covered Species, Narrow Endemic

Several occurrences of Dunn's mariposa-lily, totaling about 453 individuals, were observed within the Project Area. This species was mapped within Planning Areas 16/19 (443 individuals within the Otay Ranch RMP Preserve) and Village 14 (one individual within Conserved Open Space and nine individuals within the Otay Ranch RMP Preserve) (Figures 2.4-10 through 2.4-10cc).

### Delicate Clarkia (*Clarkia delicata*), List A

One individual was observed within the Otay Ranch RMP Preserve within Planning Area 16 and four individuals were observed within Planning Areas 16/19 off-site road improvements area (Figures 2.4-10 through 2.4-10cc).

### San Miguel Savory (*Clinopodium chandleri*), List A, MSCP Covered Species

One occurrence was observed within the Otay Ranch RMP Preserve in Planning Area 16 (Figures 2.4-10 through 2.4-10cc).

### Otay Tarplant (*Deinandra conjugens*), Federally Threatened, State Endangered, List A, MSCP Covered Species

Approximately 25 individuals were recorded in the Proctor Valley Road South off-site improvement area within City of Chula Vista–owned land (Figures 2.4-10 through 2.4-10cc). USFWS designated critical habitat for Otay tarplant exists on portions of Proctor Valley Road (Village 14) and areas located in the Development Footprint within the southwestern portion of the Project Area (Figure 2.4-11, Critical Habitat).

### Variegated Dudleya (*Dudleya variegata*), List A, MSCP Covered Species, Narrow Endemic

Two occurrences totaling approximately 35 individuals were observed in the southern Development Footprint of Village 14. There is potential for this species to occur within the Otay Ranch RMP Preserve; however, it has not been observed during focused surveys conducted within the Otay Ranch RMP Preserve.

### Gander's Pitcher Sage (*Lepechinia ganderi*), List A, MSCP Covered Species, Narrow Endemic

One occurrence of 168 individuals were observed within the Otay Ranch RMP Preserve within Planning Area 16 (Figures 2.4-10 through 2.4-10cc).

### Robinson's Pepper-Grass (*Lepidium virginicum* var. *robinsonii*), List A

Fourteen occurrences were observed in two concentrated areas within Village 14, including 168 individuals within the Development Footprint and six individuals within the Otay Ranch RMP Preserve. The southern occurrences total approximately 112 individuals and the northern occurrences total approximately 62 individuals.

### Spreading Navarretia (*Navarretia fossalis*), Federally Threatened, List A, MSCP Covered Species

There is no spreading navarretia found within the Project Area; however, there are 32.5 acres of USFWS-designated critical habitat for this species in the southwest portion (Village 14) of the Project Area within the Development Footprint (Figure 2.4-11). Impacts to critical habitat are discussed in Section 2.4.3.

### San Diego Barrel Cactus (*Ferocactus viridescens*), List B, MSCP Covered Species

Approximately 50 San Diego barrel cacti were recorded in the Project Area. Approximately 12 San Diego barrel cacti were observed primarily along Proctor Valley Road in the southern portion of the Project Area. This species was also recorded within the Village 14 Development Footprint (36 individuals) and Otay Ranch RMP Preserve (two individuals) (Figures 2.4-10 through 2.4-10cc). Additional observations of this species were made along Proctor Valley Road but were outside of the off-site improvements boundary.

### San Diego Marsh-Elder (*Iva hayesiana*), List B

Population estimates for this species' occurrence within the Project Area are approximately 5,556 individuals. This species was observed commonly throughout the Project Area within areas mapped as cismontane alkali marsh or other riparian vegetation, and in ephemeral channels (Figures 2.4-10 through 2.4-10cc).

### Munz's Sage (*Salvia munzii*), List B

Munz's sage is a common species in some of the coastal sage scrub and chamise chaparral communities within the Project Area. Although not all *Salvia* individuals could be identified to species due to the timing of the rare plant surveys, approximately 18,178 individuals were

confirmed as Munz's sage. Munz's sage occurs throughout the Project Area (Figures 2.4-10 through 2.4-10cc).

### County List C and D Species

Plants categorized as County List C species are plants that may be rare, but more information is needed to determine their true rarity status. Plants categorized as County List D are of limited distribution and are uncommon, but are not presently rare or endangered (County of San Diego 2010a). No County List C species were observed in the Project Area. County List D species that have been observed in the Project Area are described below and included in Appendix I-1 to the BTR (Appendix 2.4-1 to this EIR). None of these List D species is a Covered Species under the MSCP. In general, populations were not recorded for CRPR 4 or County List D plants; therefore, population numbers are not provided or shown in the figures. Additional species that have moderate or high potential to occur are described in more detail in Appendix I-1 to the BTR.

#### San Diego Sagewort (*Artemisia palmeri*), List D

Three occurrences of this species, totaling 16 individuals, were observed within Planning Area 16; four of these individuals were located within the Otay Ranch RMP Preserve, four individuals within the Development Footprint, and eight individuals were within the LDA.

#### Western Dichondra (*Dichondra occidentalis*), List D

There are nine occurrences within four general areas of the Village 14 Development Footprint that total 0.23 acres. One occurrence that totals less than 0.05 acres was located within Planning Area 16 Conserved Open Space. Although additional populations may occur within the Otay Ranch RMP Preserve, this species was not detected during previous surveys.

#### Palmer's Grapplinghook (*Harpagonella palmeri*), List D

Palmer's grapplinghook was observed within the center of the southern portion of the Village 14 Development Footprint at five locations totaling 40 individuals. Although additional populations may occur within the Otay Ranch RMP Preserve, this species was not detected during previous surveys.

#### Graceful Tarplant (*Holocarpha virgata* ssp. *elongata*), List D

One population of five individuals was observed in the southern Village 14 Development Footprint. An additional 15 individuals was observed in the Planning Area 16 Development Footprint. Although additional populations may occur within the Otay Ranch RMP Preserve, this species was not detected during previous surveys.

### Southwestern Spiny Rush (*Juncus acutus* ssp. *leopoldii*), List D

Approximately 577 individuals of southwestern spiny rush were observed within the Otay Ranch RMP Preserve in Planning Areas 16/19, and along Proctor Valley Road South (Village 14), generally within cismontane alkali marsh, freshwater marsh, other riparian vegetation, and ephemeral channels.

### Golden-Rayed Pentachaeta (*Pentachaeta aurea* ssp. *aurea*), List D

Approximately 12,608 individuals were observed within the Project Area, including 10,267 individuals within Planning Area 16 (of that total, 4,019 individuals were within the Development Footprint and 6,248 individuals were within the non-graded LDA), and 2,341 individuals were observed within Village 14 (of that total, 2,331 individuals were within the Development Footprint and 10 individuals were within the Otay Ranch RMP Preserve) (Figures 2.4-10 through 2.4-10cc).

### Ashy Spike-Moss (*Selaginella cinerascens*), List D

Ashy spike-moss was observed throughout portions of the Project Area, but due to its low ranking, only locations (not population numbers) for this species were recorded and mapped. Occurrences of ashy spike-moss total 1.73 acres within Village 14, including 0.15 acres within the Otay Ranch RMP Preserve, 0.06 acres within Conserved Open Space, and 1.52 acres within the Development Footprint. Additionally, occurrences of ashy spike-moss total 4.84 acres within Planning Area 16, including 1.15 acres within the Otay Ranch RMP Preserve, 0.36 acres within Conserved Open Space, 1.22 acres within non-graded LDA, and 2.11 acres within the Development Footprint.

### San Diego County Viguiera (*Viguiera laciniata*), List D

San Diego County viguiera occurs as a common shrub in some of the coastal sage scrub within the Project Area as well as throughout other vegetation communities. A total of 18,599 individuals were observed throughout the Project Area. Of the approximate total of 2,733 individuals within Village 14, 2,133 individuals occur throughout the Development Footprint, and 600 individuals were recorded throughout the Otay Ranch RMP Preserve. Additionally, 148 individuals were observed within the Planning Area 19 Development Footprint. Of the total 15,531 individuals within Planning Area 16, 7,225 individuals were observed within the Otay Ranch RMP Preserve, 434 individuals were within the Conserved Open Space, 3,610 individuals were within the non-graded LDA, and 4,262 individuals were within the Development Footprint. Off-site occurrences consisted of 187 individuals within the Planning Areas 16/19 road and one individual within the Proctor Valley North Road improvements area.

San Diego County Needle Grass (*Stipa [=Achnatherum] diegoensis*), List D

San Diego County needle grass was observed within Planning Area 16 and off-site Planning Areas 16/19 road improvements area. Of the total 168 individuals within Planning Area 16, 27 individuals were observed within the Otay Ranch RMP Preserve, 80 individuals were within the non-graded LDA, and 61 individuals were within the Development Footprint. Additionally, seven individuals were observed within the off-site Planning Areas 16/19 road improvements area (Figures 2.4-10 through 2.4-10cc).

### *2.4.1.6 Special-Status Wildlife Species*

The County of San Diego divided sensitive wildlife species into County Group 1 and County Group 2 based on the species' rarity and known threats (County of San Diego 2010a). County Group 1 species include those that have a high level of sensitivity, are listed as threatened or endangered, or have a natural history requirement that increases their sensitivity. County Group 2 species include those that are becoming less common, although not so rare that extinction is imminent without immediate action. CDFW assigns Species of Special Concern (SSC) statuses to species whose population levels are declining, have limited ranges, and/or are vulnerable to extinction due to continuing threats (CDFW 2017). In addition, fully protected (FP) species are protected by CDFW, and Watch List (WL) species are candidates for higher sensitive statuses. USFWS provides the Birds of Conservation Concern (BCC) status to migratory and non-migratory bird species that adhere to the 1988 amendment to the Fish and Wildlife Conservation Act that mandates USFWS to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973" (USFWS 2008). County Group 1 and/or SSC species, as well as County Group 2 species, that have been observed in the Project Area, or those that have a high potential to occur, are discussed in this section and included in Appendix J-1 to the BTR (Appendix 2.4-1).

Additional species that have moderate potential to occur are described in more detail in Appendix H-1. Species that have been observed or have potential to occur in the Project Area, but not during the life history phase that is considered "special-status" (e.g., nesting) are described in Appendix H-2 of the BTR. For example, white-tailed kite was observed foraging in the Project Area, but is not expected to nest there due to the lack of suitable nesting habitat.

The following MSCP Covered Species were observed within the Project Area: Cooper's hawk, southern California rufous-crowned sparrow, golden eagle, burrowing owl (sign only), northern harrier, coastal California gnatcatcher, western bluebird, mule deer, cougar, American badger, and Blainville's horned lizard.

Additional special-status wildlife species observed include red diamond rattlesnake, western spadefoot, grasshopper sparrow, red-shouldered hawk, turkey vulture, California horned lark, loggerhead shrike, yellow warbler (*Setophaga petechia*), common barn-owl, monarch (*Danaus plexippus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diegan tiger whiptail, rosy boa, long-eared owl (*Asio otus*), San Diego fairy shrimp, and white-tailed kite (*Elanus leucurus*).

Two MSCP Covered Species have a high potential to occur within the Project Area: ferruginous hawk (*Buteo regalis*) and orangethroat whiptail (*Aspidoscelis hyperythra*) (Appendix J-1 to the BTR (Appendix 2.4-1 to this EIR)).

Other special-status wildlife species with a high potential to occur within the Project Area include Bell's sage sparrow (*Artemisiospiza belli belli*), Quino checkerspot butterfly, Hermes copper butterfly (*Lycaena hermes*),[5] pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus blossevillii*), Yuma myotis (*Myotis yumanensis*), San Diego desert woodrat (*Neotoma lepida intermedia*), big free-tailed bat (*Nyctinomops macrotis*), San Diego banded gecko (*Coleonyx variegatus abbotti*), and Coronado skink (*Plestiodon skiltonianus interparietalis*) (Appendix J-1 to the BTR (Appendix 2.4-1 to this EIR)).

### County Group 1 Species and/or Species of Special Concern

County Group 1 species and/or SSC that have been observed in the Project Area or have high potential to occur are described below and included in Appendix H-1 to the BTR. Additional species that have moderate potential to occur are described in more detail in Appendix H-1 to the BTR (Appendix 2.4-1 to this EIR).

#### Amphibians and Reptiles

##### *San Diegan Tiger Whiptail (*Aspidoscelis tigris stejnegeri*), SSC/County Group 2*

One San Diegan tiger whiptail was observed during surveys in the east-central portion of the Project Area within the Development Footprint (Figures 2.4-10 through 2.4-10cc). There is suitable habitat, including open scrub and chaparral, and termite food sources observed in the Project Area.

[5] Hermes copper has a moderate potential to occur, but because it's a federal candidate for listing, it is included in this discussion.

### *Red Diamond Rattlesnake*[6] *(*Crotalus ruber*), SSC/County Group 2*

Red diamond rattlesnake was observed once within the Otay Ranch RMP Preserve in Planning Area 16, outside of the Project Area, during focused burrowing owl surveys. There is suitable habitat in the vegetation communities with rocky outcroppings; therefore, this species is assumed to occur within the Project Area.

### *San Diego Banded Gecko (*Coleonyx variegatus abbotti*), SSC/County Group 1*

This species has high potential to occur within the Project Area. Suitable habitat within the Project Area includes chaparral (southern mixed chaparral, chamise chaparral (including disturbed)), mulefat scrub, and coastal sage scrub (including disturbed).

### *Blainville's Horned Lizard (*Phrynosoma blainvillii*), SSC/MSCP Covered Species/County Group 2*

Blainville's horned lizard was observed several times during surveys, and there is suitable habitat throughout open areas in coastal sage scrub and chaparral communities (Figures 2.4-10 through 2.4-10cc). Two occurrences were identified within the Otay Ranch RMP Preserve in Planning Area 16. In addition, the presence of harvester ants observed within the Project Area would provide a food source for this species. Harvester ants are a primary source of food for Blainville's horned lizards (Nafis 2014).

### *Western Spadefoot (*Spea hammondii*), SSC/County Group 2*

Western spadefoot tadpoles were found in a vernal pool (identified as B2) and a road rut during fairy shrimp surveys; because of this observation, focused surveys for this species were conducted in 2017 (Figures 2.4-10 through 2.4-10cc). The vernal pool also contains San Diego fairy shrimp and is located within the Otay Ranch RMP Preserve, outside of the Project Area in state ownership. This pool would remain within the Otay Ranch RMP Preserve and would not be impacted by the Proposed Project. Focused surveys resulted in the detection of 16 occupied features. Four occupied features are located within the Otay Ranch RMP Preserve (A21, A27, D6, and AA4). Eight occupied features are located within the Development Footprint (A19, AA1, AA3, B11, C4, C5, C7, and D19), and four occupied features are located within Conserved Open Space (A22, A23, D23, and D5).

[6] The County of San Diego's biology guidelines refer to this species as northern red diamond rattlesnake (*Crotalus ruber ruber*); species names in this section follow the naming conventions described in Section 2.4.1 under "Flora and Fauna."

Birds

*Bell's Sage Sparrow (*Artemisiospiza belli belli*), BCC/WL/County Group 1*

This species has moderate potential to occur within the Project Area. Within the Project Area, suitable habitat includes chaparral (chamise chaparral, including disturbed, southern mixed chaparral), mulefat scrub, non-native grassland, and coastal sage scrub (including disturbed). It is likely that this species would have been observed during the focused coastal California gnatcatcher surveys conducted across the Project Area, but it was not. However, since these is suitable habitat, there is a moderate potential for this species to occur.

*Ferruginous Hawk (*Buteo regalis*), BCC/WL/MSCP Covered Species/County Group 1*

Based on available habitat and range of this species, there is a high potential for ferruginous hawk to occur within the Project Area. Ferruginous hawk forages in open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats (Polite and Pratt 1999). Within the Project Area, suitable habitat includes non-native grassland, cismontane alkali marsh, disturbed habitat, mulefat scrub, and disturbed coastal sage scrub.

*Coastal California Gnatcatcher (*Polioptila californica californica*), FT/SSC/MSCP Covered Species/County Group 1*

Focused surveys for coastal California gnatcatcher within the Project Area resulted in 29 gnatcatcher observations. (Note that because the surveys were "focused," the surveyed area is not coterminous with the Project Area as a whole.) This total consists of 11 pairs (one with a pair of fledglings), two juveniles, and three lone males (Table 2.4-4, Coastal California Gnatcatcher Locations and Populations within the Project Area, and Figure 2.4-4). The distribution of these observations are discussed further in the following paragraph. Note that some of the surveyed areas and observations shown in Figure 2.4-4 and quantified in Table 2.4-4 are outside of the Project Area, since the survey areas extended beyond the Project Area. These additional locations were retained to give context to the populations within and surrounding the Project Area. Table 2.4-4 provides the results of the focused coastal California gnatcatcher surveys and does not assess impacts to the species. Pairs were observed in coastal sage scrub communities.

The majority of the observations were located within the southern portion of the Project Area associated with the Proctor Valley Road South and Proctor Valley Road Central Development Footprints. Three pairs were detected within the Village 14 portion of the Otay Ranch RMP Preserve. A lone male was observed within the Village 14 Development Footprint. One pair was detected within the Development Footprint of Planning Areas 16/19. Within the off-site improvement areas, three pairs, two juveniles, and one lone male were observed along the buffer for Proctor Valley Road South. Two pairs and one male were observed along the survey buffer

for Proctor Valley Road Central. During the 2017 focused surveys in off-site improvement areas, two pairs were observed within CDFW-owned land (Figures 2.4-10 through 2.4-10cc). USFWS designated critical habitat for coastal California gnatcatcher overlaps a very small portion of the east-central Project Area (Figure 2.4-11).

### *Golden Eagle (*Aquila chrysaetos*), BCC/WL/FP/MSCP Covered Species/County Group 1*

Golden eagle is a BCC, WL, FP, MSCP Covered Species, and County Group 1 species. In addition, golden eagle is protected under the federal Bald and Golden Eagle Protection Act (BGEPA). As a state fully protected species, take may only occur pursuant to scientific research or in connection with an authorized Natural Community Conservation Plan (NCCP), such as the MSCP County Subarea Plan.

Golden eagle is a year-round, diurnally active species that is a permanent resident and migrant throughout California. Golden eagle is more common in northeast California and the Coast Ranges than in Southern California and the deserts. In Southern California, the species tends to occupy mountain, foothill, and desert habitats. Foraging habitat for this species includes open habitats with scrub, grasslands, desert communities, and agricultural areas. This species nests on cliffs within canyons and escarpments and in large trees (generally occurring in open habitats), and occurs primarily in rugged, topographically complex landscapes (Garrett and Dunn 1981; Johnsgard 1990). Most nests are located on cliffs or trees near forest edges, in trees within woodland savannas, or in small stands near open habitats (Kochert et al. 2002). Nest locations tend to be more closely associated with topographic heterogeneity than with a particular vegetation type (Call 1978).

Nest building can occur almost any time during the year. This species nests on cliffs, rock outcrops, large trees, and artificial structures such as electrical transmission towers, generally near open habitats used foraging (Garrett and Dunn 1981; Johnsgard 1990; Kochert et al. 2002; Scott 1985). Golden eagles commonly build, maintain, and variably use multiple alternative nest sites in their breeding territories, routinely refurbishing and reusing individual nests over many years. Generally, the nests are large platforms composed of sticks, twigs, and greenery that are often 10 feet across and 3 feet high (Zeiner et al. 1990). Pairs may build more than one nest and tend to multiple nests prior to laying eggs (Kochert et al. 2002). Each pair can have up to a dozen nests, especially in cliff-nesting habitat where nests persist for longer than they do in trees, but generally only two to three nests are used in rotation from one year to the next. Some pairs use the same nest each year, but others use alternative nests more regularly. Succeeding generations of eagles may even use the same nest (Terres 1980, as cited in CPUC and BLM 2011).

In California, golden eagle breeds January through August, with peak breeding activity occurring February through July. Breeding typically begins in January with courtship and nest building, and egg laying typically occurs in February and March (Brown 1976; CPUC and BLM 2011; WRI 2010). Golden eagles typically lay one to three eggs, which they incubate for 43 to 45 days (Beebe 1974). Hatching and then the feeding of nestlings takes place March through June. After their young fledge, the adult eagles may continue to feed the young birds for several months (CPUC and BLM 2011; WRI 2010). In the prey-rich oak woodland and savannah habitats of the California Coast Ranges, established golden eagle breeding pairs typically nest in most years (Hunt et al. 1999; Hunt and Hunt 2006); however, the long breeding cycle may contribute to some pairs breeding only every-other-year, even when food is abundant (CPUC and BLM 2011; WRI 2010). In other situations, where overall ecosystem productivity is lower or more variable from year to year, pairs need to range farther in search of food and may not nest every year because of the energetic demands of securing dispersed prey (Kochert et al. 2002).

Lagomorphs (rabbits and hares) and ground squirrels are of primary importance in the diet of most golden eagles, including in San Diego County, but their diet may include a wide variety of other mammals, reptiles, and birds, and frequently includes carrion, especially during winter (Johnsgard 1990; Kochert et al. 2002; Olendorff 1976).

### *Golden Eagle Foraging/Nesting Potential within the Development Footprint*

Golden eagles do not nest within the Project Area. All technical memorandums analyzing golden eagles related to the Project Area are included in Appendix C of the BTR (Appendix 2.4-1 to this EIR).

The MSCP Plan Table 3-5 lists vegetation communities that provide potential foraging/nesting habitat for golden eagles, including coastal sage scrub, chaparral, grassland, and oak woodland (MSCP 1998). These vegetation communities comprise 1,326.6 acres within the Project Area (see Table 2.4-2). Of these 1,325.5 acres of potential foraging habitat within the Project Area, the Proposed Project would develop/disturb 779.8 acres and would convey 390.7 acres to the Otay Ranch RMP Preserve. An additional 72.4 acres of Conserved Open Space may be conveyed to the Otay Ranch RMP Preserve. The applicant is also required to convey an additional 350.1 acres to the Otay Ranch RMP Preserve as mitigation for Proposed Project impacts, which would likely contain suitable golden eagle foraging habitat. This mitigation can occur anywhere within the Otay Ranch RMP Preserve that has not already been conveyed to the Otay Ranch RMP Preserve Owner/Manager (POM).

The vegetation communities acreages in Table 3-3 of the MSCP Plan (MSCP 1998) were not based on refined or site-specific surveys; as such, they do not capture or describe the actual quality of the habitat on any particular parcel of land. To provide a more detailed assessment of

golden eagle foraging habitat within the Project Area, the applicant retained Dudek to conduct a vegetation survey of the Project Area in 2014. The results of the vegetation survey were provided to biologists at H.T. Harvey & Associates with golden eagle expertise (Appendix C of the BTR).

Based on the definition of golden eagle foraging habitat in the MSCP Plan, 97% of the Village 14 Development Footprint is suitable golden eagle foraging habitat; however, H.T. Harvey & Associates concluded that approximately 11% (89 acres) of the Village 14 Development Footprint is not golden eagle foraging habitat because the chaparral is too dense for eagles to maneuver within and capture prey (Kochert et al. 2002; Marzluff et al. 1997; Weins et al. 2015).

Prey species such as black-tailed jackrabbits, desert cottontails, brush rabbits, California ground squirrels, mule deer, and coyote are known to occur on the Project Area (Dudek 2015). Lagomorphs and ground squirrels are of primary importance in the diet of most golden eagles, including in San Diego County (Bittner 2015; Hunsicker 1972; Hunt et al. 1999; Kochert et al. 2002).

Based on the distribution and abundance of pellets (both old and relatively fresh) detected during a habitat assessment conducted by H.T. Harvey & Associates (Appendix C of the BTR), the coastal sage scrub and intermixed grasslands that are particularly prevalent in Planning Areas 16/19, but also predominate on the upper foothills in Village 14, provide sufficient protective shrub cover and forage to accommodate jackrabbits and smaller rabbits, with habitat structure that is highly suited to foraging by golden eagles. Conversely, although the level of apparent lagomorph abundance was often comparable to that found in coastal sage scrub and areas of sparse chamise chaparral, areas of dense chamise chaparral and other shrub cover were generally too dense and tall to support eagle foraging.

Most of the Proctor Valley portion of the Project Area is underlain primarily with Olivenhain cobbly loam, which contains relatively high clay content and loamy/cobbly structure that is not conducive to burrowing by ground squirrels. Habitat assessments for burrowing owl within open vegetation communities conducted by Dudek biologists and golden eagle habitat assessments conducted by H.T. Harvey & Associates (Appendix C of the BTR) throughout Village 14 and Planning Areas 16/19, revealed limited evidence of ground squirrels and burrow resources except in areas of grazed grassland in Planning Areas 16/19. Ongoing research in San Diego County indicates that California ground squirrels prefer to burrow in sandy soils with higher bulk density and less silt, clay, and gravel (Lenihan 2007; Wisinski et al. 2013). Unlike much of the Village 14 Development Footprint in central Proctor Valley, the upper foothills portions of Proctor Valley, much of Planning Areas 16/19, and much of the land designated as Otay Ranch RMP Preserve extending up into the Jamul Mountains are underlain by Friant sandy loam soils, which are more compatible with ground squirrel burrowing. However, California ground squirrels tend to avoid steep, rugged terrain (Fitch 1948; Smallwood and Neher 2009). In addition, depending on the exposure, dense chaparral is

more likely to occur on foothill and upper slopes, and eagles are unable to forage in these areas because of the high vegetation density.

Black-tailed jackrabbit, a primary golden eagle prey species in some areas, was observed throughout the Project Area during biological surveys. Black-tailed jackrabbit home ranges may average as small as 50 acres in northern California (Lechleitner 1958); however, in more xeric grassland and shrub environments, such as those found in interior southern San Diego County, home ranges probably average hundreds of acres (Smith 1990). Therefore, although the scrub and grassland communities within the Project Area represent good habitat for jackrabbits; however, the overall Development Footprint likely supports only a few breeding pairs of jackrabbit

Based on the available and accessible evidence, it is not clear that any individual eagles currently rely on the Project Area as foraging habitat consistently or perennially (Appendix C of the BTR). Given that Village 14 and Planning Areas 16/19 do not currently overlap any pair's core breeding territory, and the closest known recently active nests are more than 5 miles away, if a pair nesting in the San Ysidro Mountains routinely forages in Proctor Valley, the loss of foraging habitat from the Proposed Project in a peripheral portion of that pair's overall home range would not be significant or impede the MSCP's conservation goals for golden eagle (Appendix C of the BTR). Moreover, such a pair would continue to have ready access to large acreages of suitable foraging habitat within the Otay Ranch RMP Preserve in the Jamul Mountains, the foothills of Proctor Valley, possibly around San Miguel Mountain, and in the large expanse of Preserve habitat located between the Jamul Mountains and San Ysidro Mountains. Therefore, developing the Proposed Project would not significantly compromise the ability of any current breeding pairs to sustain themselves (Appendix C of the BTR).

### *Status of Golden Eagle Breeding and Nests in the Vicinity of the Project Area*

A review of pertinent documents related to the historical occurrence of golden eagle nests in the vicinity of the Project Area was conducted using Scott (1985), WRI (2005, 2010), USFWS (2011a, 2014b), and U.S. Geological Survey data (USGS 2014). Based on these resources, one historic territory was situated west of the Project Area on San Miguel Mountain (Appendix C of the BTR (Appendix 2.4-1 to this EIR)). The MSCP Plan refers to this territory as the "Rancho San Diego" territory (MSCP 1998), but most biologists know it as the "San Miguel Mountain" territory, which is how this document refers to it. Historic maps and descriptions identify two distinct nesting areas: one on the upper eastern slope and one on the western slope of San Miguel Mountain, generally within canyons. Radio towers are situated above the eastern nesting area on the top of San Miguel Mountain. This breeding territory area was occupied from at least the "early 1900s" through 2007 (Scott 1985; WRI 2010).

In 2000, fire destroyed three existing nest structures that were located in the nesting area on the upper east side of San Miguel Mountain, but the resident pair rebuilt one of those nests that same year. The pair continued to attempt nesting in the area through 2005, and then remained in the territory but did not attempt to breed in 2006 or 2007. Then in late 2007, the Harris Fire destroyed the remaining nest and collapsed the cliff face on which the eagles built the nest. Since the 2007 fire, surveys have failed to confirm a breeding pair or any newly built nests in the area (Appendix C of the BTR). In short, no eagles have attempted to nest at the site since 2005, and the nesting territory has apparently been unoccupied since 2007 (USFWS 2014b; WRI 2010; Appendix C of the BTR).

USFWS and the Bureau of Land Management (BLM) installed two artificial nest platforms in the region in 2013. One platform was installed on August 20, 2013, on the eastern side of San Miguel Mountain near where the most recently used historical nests were located (San Diego National Wildlife Refuge land), and the second platform was installed on April 29, 2013, on the north end of the Jamul Mountains (BLM land) (USFWS 2011b; 2014b). Post-construction monitoring which was conducted at various intervals from January through June 2014, did not reveal nesting at either location, although golden eagles perched on the platform on San Miguel Mountain (USFWS 2014b). Within the 2011 USFWS grant submission form, USFWS acknowledged that this was an experimental project and that "the response of golden eagles to artificial nest structures is not well-studied" (USFWS 2011b). Based on data showing no nesting activity in the 10 years since the Harris Fire (WRI 2010; USFWS 2014a; Appendix C of the BTR), it is assumed that the former San Miguel Mountain territory is inactive.

Eagle specialists from H.T. Harvey & Associates (Appendix C of the BTR) surveyed the Project Area and surrounding area (4,000-plus-foot buffer surrounding the Development Footprint) for potential territorial and breeding activity during the 2016 and 2017 breeding seasons. The study area included the locations of the former San Miguel Mountain nest sites and both artificial platforms. The surveys did not revealed any nests or any eagles displaying territorial, courtship, or nesting behavior within the San Miguel, Jamul, or Proctor Valley areas.

Based on the data discussed above, there are no extant golden eagle nests within 4,000 feet of the Development Footprint, nor anywhere close to that distance from the Project Area (Appendix C of the BTR (Appendix 2.4-1 to this EIR)). The nearest known active golden eagle nest (as of 2011) is located in the Cedar Canyon area near Otay Mountain, just over 5 miles from the proposed Development Footprint (USFWS et al. 2012 and Appendix C of the BTR (Appendix 2.4-1 to this EIR)). Golden eagles observed by H.T Harvey & Associates and tracked by the U.S. Geological Survey in the Project Area mostly appeared to be transient adults and subadults that occur seasonally or periodically in these areas; however, the U.S. Geological Survey tracking data demonstrate that the Project Area does represent a peripheral portion of the current overall foraging range of the Cedar Canyon breeding pair (Tracey et al. 2016, 2017; Appendix C of the BTR).

*White-Tailed Kite (*Elanus leucurus*), FP/County Group 1*

White-tailed kite was observed once in November 2014 toward the east-central portion of the Project Area within the Otay Ranch RMP Preserve in Village 14 (Figures 2.4-10 through 2.4-10cc). Approximately 45 acres of suitable foraging habitat is within the Project Area. Due to the Project Area's proximity to Sweetwater Reservoir and Lower and Upper Otay Reservoirs where there is more suitable riparian woodland for nesting, this species likely forages in the Project Area occasionally. Foraging habitat within the Project Area consists of cismontane alkali marsh, eucalyptus woodland, mulefat scrub, oak riparian forest, and non-native grassland. Due to the lack of dense riparian or oak woodland within the Project Area, as well as lack of observations during the nesting season, this species is unlikely to nest within the Project Area.

*Cooper's Hawk (*Accipiter cooperii*), WL/MSCP Covered Species/County Group 1*

A Cooper's hawk was observed flying overhead during biological surveys in 2014, but since much of the Project Area is likely used by this species, the observation was not mapped. There is some suitable nesting habitat in the southern willow scrub and eucalyptus within the Project Area. There are five small separate areas mapped as eucalyptus woodland throughout the Project Area, including one patch along Proctor Valley Road South (Figures 2.4-10 through 2.4-10cc). Two small polygons of southern willow scrub are mapped in the northern portion of the Project Area within the Otay Ranch RMP Preserve in Planning Areas 16/19 (Figures 2.4-10 through 2.4-10cc). The Project Area supports nesting opportunities within habitats with trees.

*Southern California Rufous-Crowned Sparrow (*Aimophila ruficeps canescens*), WL/MSCP Covered Species/County Group 1*

Southern California rufous-crowned sparrows were observed on several occasions in coastal sage scrub habitats during surveys (Figures 2.4-10 through 2.4-10cc). Of the five individuals observed, two Southern California rufous-crowed sparrows were observed within Planning Area 16 in the Development Footprint. One individual was observed in the Otay Ranch RMP Preserve, one individual was observed in the Development Footprint within Planning Area 19, and one individual was observed with the Development Footprint of Proctor Valley Road (Village 14).

*Grasshopper Sparrow (*Ammodramus savannarum*), SSC/County Group 1*

Grasshopper sparrow was observed during surveys but the observations were not mapped. Suitable habitat for grasshopper sparrow includes non-native grassland that occurs primarily in Planning Areas 16/19 Otay Ranch RMP Preserve.

*Long-Eared Owl (*Asio otus*), SSC/County Group 1*

Long-eared owl was observed once in November 2014 toward the southern portion of the Project Area (Figures 2.4-10 through 2.4-10cc). There are some breeding records in surrounding areas to the north (Unitt 2004). Due to the lack of dense riparian woodland or oak woodland, this species has low potential to nest within the Project Area.

*Burrowing Owl (Athene cunicularia), BCC/SSC/MSCP Covered Species/County Group 1*

Focused surveys for burrowing owl were conducted within the Project Area in 2014, following the guidelines in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). During these surveys, no burrowing owls or sign were observed. In 2015, burrowing owl sign consisting of white wash, feathers, and pellets were observed at one location in the central portion of the Project Area during rare plant surveys (Figures 2.4-10 through 2.4-10cc). 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 2.4-5). However, based on the limited observation of burrowing owl sign, and the lack of observations during focused surveys in 2014, this species likely does not occur regularly within the Project Area. The loamy/cobbly soils underlying much of the Project Area, in particular most of the area within the Development Footprint, are not ideal for ground squirrel burrowing. This suggests that within the Project Area, the distribution and abundance of California ground squirrels, a primary source of burrows for burrowing owls, is limited.

*Red-Shouldered Hawk (*Buteo lineatus*), County Group 1*

Red-shouldered hawk was detected within the Project Area, but the observations were not mapped. Within the Project Area, there are no permanent water sources; however, ephemeral and intermittent sources are present. There is suitable foraging habitat throughout the Project Area. Nesting and foraging habitat for this species includes chamise chaparral, disturbed chamise chaparral, disturbed habitat, eucalyptus woodland, oak riparian forest, and non-native grassland. The Project Area supports nesting opportunities within habitats with large trees.

*Turkey Vulture (*Cathartes aura*), County Group 1*

Turkey vulture was observed foraging throughout the Project Area during biological surveys, but the observations were not mapped. The Project Area does not support suitable cliffs or large trees for nesting, but there is suitable foraging habitat within the Project Area. Suitable foraging habitat includes most vegetation communities and undeveloped land cover.

*Northern Harrier (*Circus cyaneus*), SSC/MSCP Covered Species/County Group 1*

One northern harrier was observed foraging in the northern portion of the Project Area within the Otay Ranch RMP Preserve in Planning Areas 16/19 (Figures 2.4-10 through 2.4-10cc). Northern harriers are known to nest along the Otay River and there is suitable nesting habitat along the Proctor Valley drainage; however, based on the low frequency of observations this species is likely not currently nesting within the Project Area.

*Loggerhead Shrike (*Lanius ludovicianus*), BCC/SSC/County Group 1*

Loggerhead shrike was observed within Village 14 on the eastern edge of the Development Footprint and in the Otay Ranch RMP Preserve (Figures 2.4-10 through 2.4-10cc).

*Yellow Warbler (*Setophaga petechia*), BCC/SSC/County Group 2*

Yellow warbler was observed foraging overhead within the Otay Ranch RMP Preserve in Planning Area 16. This species was observed during 2017 focused coastal California gnatcatcher surveys. The yellow warbler was not mapped because the bird was frequently moving and calling within sparse chaparral, and was likely a migrant due to unsuitable nesting habitat.

Invertebrates

*San Diego Fairy Shrimp (*Branchinecta sandiegonensis*), FE/ County Group 1*

San Diego fairy shrimp is a federally endangered, and County Group 1 species.[7] In 2015 and 2016, focused surveys for the species were conducted within the study area, which includes the Project Area and property outside the Project Area along the existing segments of Proctor Valley Road. A total of 105 features were identified within the Study Area as potential suitable habitat for vernal pool branchiopods. Most of the features were located alongside or within existing dirt roads within the study area and were moderately disturbed. Many of the features showed evidence of historical off-highway-vehicle disturbance (i.e., shaped like tire tracks). The features detected were road ruts (depressions that are typically formed by vehicular traffic within or immediately adjacent to roadways, generally lack aquatic vegetation, and are heavily disturbed by vehicular traffic), ephemeral basins (surface depressions that retain sufficient water level, support aquatic vegetation, and generally lack vehicle disturbance), or vernal pools (depressions

[7] The MSCP County Subarea Plan also identifies San Diego fairy shrimp as a Covered Species. As explained in the BTR (Appendix 2.4-1), however, a 2006 federal court decision invalidated the City of San Diego's MSCP coverage for fairy shrimp, and the MSCP County Subarea Plan includes similar coverage provisions for the species. For this reason, the County has taken the position that the MSCP, as written, does not provide take authorization coverage for San Diego fairy shrimp.

that retain sufficient water level, support vernal pool indicator plant species, and support vernal pool branchiopods).

Of the 105 features surveyed, 15 supported either the non-special-status versatile fairy shrimp or the federally listed endangered San Diego fairy shrimp, with an additional 11 containing immature fairy shrimp that were unidentifiable to species (i.e., *Branchinecta* sp.).

During the focused fairy shrimp surveys conducted in 2014/2015 and 2015/2016, a total of 49 features (39 features in 2014/2015 and 10 features in 2015/2016) were identified as potential suitable habitat for vernal pool branchiopods within the Project Area. Within the Project Area, nine features were found to support fairy shrimp during the focused protocol surveys. Of these nine features, four features had San Diego fairy shrimp and were all characterized as road ruts (A22, A23, A27, and D4) (Figures 2.4-8a through 2.4-8i). Five of the features supported versatile fairy shrimp. None of the four features containing San Diego fairy shrimp would be impacted by the Proposed Project.

In addition to features within the Project Area, a total of 17 features outside of the Project Area were found to support fairy shrimp during the focused protocol surveys discussed herein: 5 features (A12, B2, C14, C21 and D9) supported San Diego fairy shrimp, 2 features (C8 and C12) supported versatile fairy shrimp, and 10 features (C13, C15 through C19 and D15 through D18) were occupied by immature fairy shrimp that were unidentifiable to species (i.e., *Branchinecta* sp.) (Figures 2.4-8a through 2.4-8i). The only feature that would be considered a vernal pool is Feature B2, which is located outside of the Project Area to the north of the Village 14.

### *Quino Checkerspot Butterfly (*Euphydryas editha quino*), FE/County Group 1*

Quino checkerspot butterfly is a federally endangered and County Group 1 species. This species is found only in western Riverside County, southern San Diego County, and northern Baja California, Mexico (USFWS 2003). This species is found on sparsely vegetated hilltops, ridgelines, and occasionally on rocky outcrops in open chaparral and coastal sage scrub habitat (typically at less than 3,000 feet above mean sea level). This species requires host plants within these vegetation communities for feeding and reproduction. The primary larval host plant is dotseed plantain; however, several other species have been documented as important larval host plants, including desert plantain, sometimes called woolly plantain (*Plantago patagonica*); thread-leaved bird's beak (*Cordylanthus rigidus*); white snapdragon (*Antirrhinum coulterianum*); owl's clover; and Chinese houses (*Collinsia* spp.) (USFWS 2003). A total of 813.9 acres of the Project Area is USFWS-designated critical habitat for Quino checkerspot butterfly (Figure 2.4-11). Although not observed within the Project Area, this species is described in more detail herein because it has previously been recorded within and surrounding the Project Area (Figure 2.4-12, Simplified Map of Vegetation Communities, 2016 Quino Host Plant, and Historical

Landmarks, and Figures 2.4-12a through 2.4-12cc, Quino Host Plant Mapping and Historical Locations). Historically, Quino checkerspot butterfly was observed within the Project Area in 2001(CDFW 2015; USFWS 2015; and Appendix D of the BTR (Appendix 2.4-1 to this EIR)).

### *Quino Checkerspot Butterfly Status*

HELIX evaluated the status of Quino checkerspot butterfly based on current and historic observations and host plant distribution in the Project Area, including the Village 14 and Planning Areas 16/19 Development Footprint, the Otay Ranch RMP Preserve, Conserved Open Space, and off-site improvement areas (Appendix D of the BTR (Appendix 2.4-1 to this EIR)).

### *Current and Historic Quino Checkerspot Butterfly Observations*

No Quino checkerspot butterfly adults or larvae were observed within the Project Area by Dudek in 2014 or by HELIX in 2015 or 2016. HELIX reviewed the CNDDB and USFWS databases for documented Quino checkerspot butterfly locations within and adjacent to the Project Area. The databases contain scattered Quino checkerspot butterfly locations throughout the broader Proctor Valley region, with the dates of the documented sightings ranging from 1990 to 2007, and recent observations from 2017 (Figure 2.4-13, Vegetation Communities, 2016 Quino Host Plant, and Historical Locations). Only one location (Historical Sighting Location 1) has been documented within the Village 14 Development Footprint. A second location occurs just north of the west-central portion of the Village 14 Development Footprint (Historical Sighting Location 2). Both historical sightings are described below (Appendix D of the BTR).

**Current Observations:** In 2017, several individuals were documented within the vicinity of the Project Area by USFWS (USFWS 2017). These observations are considered to be incidental because they were made during a general reconnaissance of the area and not pursuant to a focused or protocol survey for the species. Two individuals were observed west of the central portion of the Village 14 Preserve, and 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).

**Historical Sighting Location 1:** In 2001, David Faulkner (San Diego Natural History Museum) and Jim Rocks (URS) documented 12 Quino checkerspot butterfly butterflies along a ridgeline on the eastern portion of the Central Village 14 Development Footprint, as part of a survey for an adjacent property (Rocks 2015). This area contains an old road and appears to have been previously cleared of vegetation, possibly as part of historical firebreaks, past firefighting activities, or some other physical disturbance. The 2016 host plant mapping by HELIX identified two patches of Quino checkerspot butterfly host plants in the area (0.12 acres and 0.25 acres) with high densities, along with two high-density, three medium-density, and several low-density point

locations of host plants. The 2015 host plant mapping by HELIX identified a 0.24-acre patch of Quino checkerspot butterfly host plants along the old disturbed roadway. There was also a smaller patch of host plants and six isolated host plant points in the vicinity. No Quino checkerspot butterflies were observed in this area during the 2015 or 2016 surveys conducted by HELIX. The area generally supports chaparral except for the disturbed areas noted above (Figure 2.4-13).

**Historical Sighting Location 2:** A second location occurs just north of the west-central portion of the Village 14 Development Footprint approximately 200 feet north of the Project Area, and was documented by Mooney Jones and Stokes as part of a USFWS-funded post-fire study associated with the 2003 Old Fire. One Quino checkerspot butterfly was observed in 2005 along a ridge top west of Proctor Valley Road consisting of burned coastal sage scrub/chamise chaparral. Two Quino checkerspot butterflies were observed in the same location in 2006, and one Quino checkerspot butterfly was observed in the same location in 2007 (Borcher 2015). HELIX biologists surveyed this area in 2015 and found scattered host plant points, but no Quino checkerspot butterflies were observed. HELIX's 2016 surveys occurred adjacent to this historic sighting location, and scattered host plants were mapped but, no Quino checkerspot butterflies were observed (Appendix D of the BTR (Appendix 2.4-1 to this EIR)). Under the Proposed Project, the actual data point would be avoided but is located within 300 feet of the proposed Development Footprint and within 250 feet of grading for Proctor Valley Road.

### *Host Plant Distribution within the Development Footprint*

#### *2016 Host Plant Mapping*

The 2016 host plant distribution is shown in Figure 2.4-3b and reflects an above-average year for host plant expression based on the feedback from the biologists who completed the surveys in 2016 and the County of San Diego's biologist. Host plants that were mapped in 2016 generally occurred in the same areas as in 2015, but occurred in lower densities compared to 2015. Because of the limited amount of owl's clover across the site, only a summary of dwarf plantain locations is provided.

- 55% of the host plant locations within the Village 14 Development Footprint (209 points and patches of the 380 total host plant locations) were mapped as low density (1–100 plants). Within the Village 14 Development Footprint, 61% of the host plant locations were mapped as low density (137 points and patches of the 225 locations). Within the Planning Area 16 Development Footprint, 52% of the host plant locations were mapped as low density (63 points of the 121 locations). Within the Otay Ranch RMP Preserve (Impacted), 29% of the host plant locations were mapped as low density (4 points of the 14 locations). Within the off-site Development Footprint, 25% of the host plant locations were mapped as low density (5 points of the 20 locations). No low-density host plant locations were mapped within Planning Area 19 or within the impacted LDA.

- 31% of the host plant locations within the Development Footprint (118 points and patches) were mapped as medium density (100–1,000 plants). Within the Village 14 Development Footprint, 23% of the host plant locations were mapped as medium density (51 points and patches of the 225 locations). Within the Planning Area 16 Development Footprint, 40% of the host plant locations were mapped as medium density (48 points and patches of the 121 locations). Within the Otay Ranch RMP Preserve (Impacted), 71% of the host plant locations were mapped as medium density (10 points and patches of the 14 locations). Within the off-site Development Footprint, 45% of the host plant locations were mapped as medium density (9 points and patches of the 20 locations). No medium-density host plant locations were mapped within Planning Area 19 or within the impacted LDA.
- 14% of the host plant locations within the Development Footprint (53 points and patches) were mapped as high density (1,000–10,000 plants), as shown in Figure 3-1b. Within the Village 14 Development Footprint, 16% of the host plant locations were mapped as high density (37 points and patches of the 225 locations). Within the Planning Area 16 Development Footprint, 8% of the host plant locations were mapped as high density (10 points and patches of the 121 locations). Within the off-site Development Footprint, 30% of the host plant locations were mapped as high density (6 patches of the 20 locations). No high-density host plant locations were mapped within Planning Area 19, Otay Ranch RMP Preserve impacted, or impacted LDA.
- A majority of the areas with high densities of host plants within the Development Footprint in 2016 occurred within small openings of larger tracts of chaparral, with the other higher-density patches occurring in sage scrub and non-native grassland areas.
- One of the high-density areas in the eastern portion of the Central Village 14 Development Footprint appears to be an area that was previously cleared of vegetation, possibly as part of historical firebreaks, past firefighting activities, or some other physical disturbance (i.e., approximately 300 feet southeast of Historical Sighting 1; Figure 3-1b).

To summarize the 2016 survey data, the majority of the host plant locations within the Development Footprint (292 of the 380 mapped locations; 77%) were mapped as point locations ranging from a few square feet to 250 square feet. Furthermore, of the 292 point locations, the majority of these (280 of the 292 locations; 96%) were low density (1–100 plants) or medium density (100–1,000 plants), and most occurred within a matrix of chaparral and coastal sage scrub habitats.

### *2015 Host Plant Mapping*

The 2015 host plant distribution shown in Figure 2.4-14, 2015 Quino Host Plant Mapping, Potential Resource Areas, and Historical Locations, reflects a more substantial host plant expression within the Village 14 Development Footprint because 2015 was an excellent year for host plants. Focused 2015 host plant mapping and surveys were conducted only for the development impact area associated with the land exchange that was proposed at that time. For this reason, 2015 host plant mapping provided in Figure 2.4-14 does not represent a comprehensive assessment of the Project Area. Nevertheless, the mapping data is discussed in this EIR to provide context for the general expression of resources in 2015. As noted above, focused surveys and host plant mapping were not conducted in Planning Areas 16/19 during the 2015 host plant mapping, but host plants were mapped in Planning Areas 16/19 during the 2016 survey. Results of the 2015 host plant mapping are summarized here (Appendix D of the BTR (Appendix 2.4-1 to this EIR)):

- The majority of the host plant locations—both points and patches—were mapped as low density (38 locations with 1–100 plants representing 33% of points/patches) or medium density (39 locations with 100–1,000 plants representing 34% of points/patches) within the proposed Village 14 Development Footprint.
- There were33 locations within the currently proposed Village 14 Development Footprint that were mapped as high density (1,000–10,000 individuals) (29% of points/patches). There were also four locations within the Village 14 Development Footprint were mapped as very high density (more than 10,000 individuals) (4% of points/patches). As was the case in 2016, the 2015 surveys indicated that the majority of the high-density host plant areas within the Village 14 Development Footprint occurred within small openings of chaparral or were adjacent to areas excluded from surveys in 2015 because they were considered too dense to support Quino checkerspot butterfly.
- 71% of the host plant locations (including both points and patches) within the proposed Village 14 Development Footprint were mapped as low density (1–100 plants) or medium density (100–1,000 plants) within a matrix of chaparral.

### *2014 Host Plant Mapping*

The 2014 focused host plant mapping conducted by Dudek biologists only yielded four host plant patches. Since subsequent surveys and mapping resulted in greater host plant distribution, those four host plant patches are not included in any figures, nor are they discussed further herein.

*Host Plant Distribution within Otay Ranch RMP Preserve, Non-Graded LDA, and Conserved Open Space (2016 Mapping)*

HELIX biologists completed host plant mapping within the Otay Ranch RMP Preserve portion of the Project Area in 2016. Results are summarized below (Appendix D of the BTR (Appendix 2.4-1 to this EIR)):

- 59% of the host plant locations within the non-impacted areas (81 points and patches) were mapped as low density (1–100 plants).
- 25% of the host plant locations within the non-impacted areas (34 points and patches) were mapped as medium density (100–1,000 plants).
- 17% of the host plant locations within the Development Footprint (23 points and patches) were mapped as high density (1,000–10,000 plants), as shown in Figure 2.4-3b.
- The high-density host plant locations (1,000–10,000 individuals) within the non-impacted areas occurred within openings of coastal sage scrub and chaparral.

The majority of the host plant locations in the Otay Ranch RMP Preserve (115 of the 138 mapped locations; 83%) were small points ranging from a few square feet to 250 square feet. Furthermore, of the 115 locations, the majority of these (108 of the 115 locations; 94%) were low density (1–100 plants) or medium density (100–1,000 plants), and most occurred within a matrix of chaparral and coastal sage scrub communities.

***Hermes Copper Butterfly (*Lycaena hermes*), FC/County Group 1***

There is 26.8 acres of suitable habitat for this species within the Project Area. No individuals of the species were observed during the 2015 or 2017 protocol surveys; however, this species could occur in the Project Area in the future if populations expand in San Diego County. There were five locations of Hermes copper butterfly within 5 miles of the Project Area recorded 2004 to 2006 (CDFW 2017). All five occurrences were within the San Diego National Wildlife Refuge. Populations within the San Miguel Mountain portion of the refuge were determined to be extirpated after loss of habitat during the 2007 Harris Fire (Marschalek and Deutschman 2017). There were additional populations within the Rancho Jamul Ecological Preserve immediately adjacent to the Project Area, but those populations were also assumed to be extirpated due to 2003 and 2007 fires within the area (Marschalek and Deutschman 2017). According to the San Diego County Hermes Copper (*Lycaena hermes*) Habitat Conservation and Management Plan prepared by Marschalek and Deutschman (2017), these previously known populations were surveyed in 2016, and no Hermes copper butterflies were observed. Based on the lack of observations during the 2015 and 2017 surveys within the Project Area, and the extirpation of surrounding populations, there is a moderate potential for Hermes copper butterfly to use the

habitat within Project Area in the future. However, based on the 2015 and 2017 surveys, Hermes copper butterfly does not currently occupy any habitat within the Project Area.

### County Group 2 Species

County Group 2 species that have been observed or have high potential to occur in the Project Area are described below and included in Appendix J-1 to the BTR (Appendix 2.4-1). Additional species that have moderate potential to occur are described in more detail in Appendix J-1 to the BTR.

#### Mammals

##### *Pallid Bat (*Antrozous pallidus*), SSC/County Group 2*

This species has high potential to occur within the Project Area. Within the Project Area, suitable foraging habitat includes non-native grassland, chaparral (chamise chaparral, southern mixed chaparral), cismonate alkali marsh, developed, disturbed habitat, eucalyptus woodland, mulefat scrub, southern coast live oak riparian forest, open water, and coastal sage scrub (including disturbed). Due to the low potential for bats to roost within the Development Footprint, focused surveys for bats were not conducted. Small patches of potential tree roosting habitat for bat species and rock outcrops that could provide roosting are located within the Otay Ranch RMP Preserve, non-graded portions of the LDA, and outside of the Project Area. Large boulders, caves, or cliffs were not observed within the Project Area. These features may occur outside of the Project Area within the adjacent mountains. Although there is foraging habitat located within the Project Area, including the Development Footprint, any potential roosting habitat (large trees or rock outcrops) is located outside of the Development Footprint.

##### *Western Mastiff Bat (*Eumops perotis californicus*), SSC/County Group 2*

This species has high potential to occur within the Project Area. Suitable foraging habitat within the Project Area includes chaparral (chamise chaparral including disturbed, southern mixed chaparral), cismontane alkali marsh, eucalyptus woodland, mulefat scrub, southern coast live oak riparian forest, open water, non-native grassland, and coastal sage scrub (including disturbed). Due to the low potential for bats to roost within the Development Footprint, focused surveys for bats were not conducted. Small patches of potential tree roosting habitat for bat species and rock outcrops that could provide roosting are located within the Otay Ranch RMP Preserve, non-graded portions of the LDA, and outside of the Project Area. Large boulders, caves, or cliffs were not observed within the Project Area. These features may occur outside of the Project Area within the adjacent mountains. Although there is foraging habitat located within the Project Area, including the Development Footprint, any potential roosting habitat (large trees or rock outcrops) is located outside of the Development Footprint.

*Western Red Bat (Lasiurus blossevillii), SSC/County Group 2*

This species has high potential to occur within the Project Area. Western red bats typically roost in tree canopies. Suitable foraging habitat within the Project Area includes eucalyptus woodland and southern coast live oak riparian forest. Due to the low potential for bats to roost within the Development Footprint, focused surveys for bats were not conducted. Small patches of potential tree roosting habitat for bat species and rock outcrops that could provide roosting are located within the Otay Ranch RMP Preserve, non-graded portions of the LDA, and outside of the Project Area. Large boulders, caves, or cliffs were not observed within the Project Area. These features may occur outside of the Project Area within the adjacent mountains. Although there is foraging habitat located within the Project Area, including the Development Footprint, any potential roosting habitat (large trees or rock outcrops) is located outside of the Development Footprint. Big Free-Tailed Bat (*Nyctinomops macrotis*), SSC/County Group 2

This species has high potential to occur within the Project Area. Within the Project Area, suitable foraging habitat includes chaparral (chamise chaparral including disturbed, southern mixed chaparral), disturbed habitat, eucalyptus woodland, mulefat scrub, southern coast live oak riparian forest, non-native grassland, and coastal sage scrub (including disturbed). Due to the low potential for bats to roost within the Development Footprint, focused surveys for bats were not conducted. Small patches of potential tree roosting habitat for bat species and rock outcrops that could provide roosting are located within the Otay Ranch RMP Preserve, non-graded portions of the LDA, and outside of the Project Area. Large boulders, caves, or cliffs were not observed within the Project Area. These features may occur outside of the Project Area within the adjacent mountains. Although there is foraging habitat located within the Project Area, including the Development Footprint, any potential roosting habitat (large trees or rock outcrops) is located outside of the Development Footprint. Yuma Myotis (*Myotis yumanensis*), County Group 2

This species has high potential to occur within the Project Area. Within the Project Area, suitable foraging habitat includes chaparral (chamise chaparral, including disturbed, southern mixed chaparral), cismontane alkali marsh, coastal sage scrub (including disturbed), eucalyptus woodland, mulefat scrub, non-native grassland, and southern coast live oak riparian forest. Focused surveys for bats were not conducted due to the absence of suitable roosting habitat. Small patches of potential tree roosting habitat for bat species and rock outcrops that could provide roosting are located within the Otay Ranch RMP Preserve, non-graded portions of the LDA, and outside of the Project Area. Large boulders, caves, or cliffs were not observed within the Project Area. These features may occur outside of the Project Area within the adjacent mountains. Although there is foraging habitat located within the Project Area, including the Development Footprint, any potential roosting habitat (large trees or rock outcrops) is located outside of the Development Footprint.

*Mule Deer (*Odocoileus hemionus*), MSCP Covered Species/County Group 2*

Mule deer were observed during biological surveys, but the locations were not mapped due to the high mobility of this species. Mule deer were flushed from upland habitats several times during surveys and are likely to use most of the Project Area.

*Cougar (*Puma concolor*), MSCP Covered Species/County Group 2*

This species has a high potential to move through the Project Area. Cougar sign (scat) was observed during gnatcatcher surveys in the northwestern portion of the Project Area, but the site is generally open and does not provide good cover.

*San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*), SSC/County Group 2*

This species was observed throughout the Project Area during biological surveys (Figures 2.4-10 through 2.4-10cc). Due to the high mobility of this species, not all observations were mapped. This species can occur throughout the upland vegetation communities within the Project Area.

*San Diego Desert Woodrat (*Neotoma lepida intermedia*), SSC/County Group 2*

Woodrat middens were observed (but not mapped), indicating that this species occurs within the Project Area. Suitable habitat within the Project Area includes upland vegetation communities.

*American Badger (Taxidea taxus), SSC/MSCP Covered Species/County Group 2*

Within the Project Area, an American badger burrow was documented within the Otay Ranch RMP Preserve in Planning Area 16. The burrow showed distinct claw marks indicative of a badger burrow.

Reptiles

*Coronado Skink (*Plestiodon skiltonianus interparietalis*) WL/County Group 2*

Although Coronado skink was not detected during surveys, this species has high potential to occur within the Project Area. Suitable habitat occurs in the Project Area and includes chaparral (southern mixed chaparral, chamise chaparral, including disturbed), and eucalyptus woodland.

*Orangethroat Whiptail (*Aspidoscelis hyperythra*), WL/MSCP Covered Species/County Group 2*

Orangethroat whiptail has high potential to occur within the Project Area. Within the Project Area, suitable habitat includes chaparral (chamise chaparral including disturbed, southern mixed chaparral), coastal sage scrub (including disturbed), disturbed habitat, eucalyptus woodland, mulefat scrub, and southern coast live oak riparian forest.

*Rosy Boa (*Lichanura trivirgata*), County Group 2*

Rosy boa was observed once during surveys within the Otay Ranch RMP Preserve in Village 14, east of the Development Footprint (Figures 2.4-10 through 2.4-10cc). Suitable habitat occurs within the Project Area in vegetation communities with rocky outcroppings.

Birds

*California Horned Lark (*Eremophila alpestris actia*), WL/County Group 2*

This species was observed during biological surveys, with several individuals generally occurring at mapped locations (Figures 2.4-10 through 2.4-10cc). However, due to the high mobility of this species, not all observations were mapped. Mapped locations included observations within the Otay Ranch RMP Preserve in Village 14 and Planning Areas 16/19. There is suitable foraging and nesting habitat within the Project Area.

*Western Bluebird (*Sialia mexicana*), MSCP Covered Species/County Group 2*

Western bluebirds were observed during surveys. One observation was mapped along Proctor Valley Road North at the edge of the Project Area. There is suitable nesting habitat within the eucalyptus trees. Suitable foraging habitat includes many of the vegetation communities in the Project Area.

*Barn Owl (*Tyto alba*), County Group 2*

This species was observed during focused surveys for coastal California gnatcatcher in the northwest portion of the Project Area, east of Proctor Valley Road, but its location was not mapped. Although there is suitable habitat for foraging, there are limited trees or similar structures that would support nesting for this species. Suitable foraging habitat in the Project Area includes the majority of the vegetation communities.

Invertebrates

*Monarch (*Danaus plexippus*), County Group 2*

Monarch butterfly was observed during Quino checkerspot butterfly surveys (Appendix D of the BTR), and Mexican whorled milkweed (*Asclepias fascicularis*), a potential host plant, was recorded within the Project Area. There are small patches of eucalyptus within the Project Area, but they are not expected to be large enough to support wintering colonies. The nearest wintering colony of monarch butterfly in San Diego County is near the University of California, San Diego coastal along Aluz Street, approximately 23 miles northwest of the Project Area (Pelton et al. 2016).

### 2.4.1.7 Wetlands/Jurisdictional Aquatic Resources

The jurisdictional delineations conducted by Dudek biologists in 2014, 2015, and 2016 show that there are jurisdictional aquatic features in the Project Area. Jurisdictional aquatic resources, including wetlands/riparian areas and non-wetland waters/streambeds, mapped in the Project Area are shown in Figures 2.4-10 through 2.4-10cc. Table 2.4-5, ACOE/RWQCB/CDFW Jurisdictional Aquatic Resources within the Project Area, provides a summary, in acreages and linear feet, of these jurisdictional aquatic resources. Within the Project Area, ACOE, RWQCB, and CDFW jurisdictions follow the same boundaries. Jurisdictional resources within the Project Area total 13.73 acres (41,760 linear feet).

The Project Area is located within the Dulzura hydrologic area of the Otay watershed, in the Jamul hydrologic subarea (Hydrological Subarea Code 910.33), Proctor hydrologic subarea (Hydrological Subarea Code 910.32), and Savage hydrologic subarea (Hydrological Subarea Code 910.31). The Development Footprints for Village 14 and Planning Areas 16/19 are located entirely within the Jamul and Proctor hydrologic subareas. Drainages within the Project Area flow toward Proctor Valley from the higher elevations east and west of the Project Area. In general, the drainages from the higher elevations are relatively steep and narrow and do not hold water most of the year. A few areas along the flatter topography exhibit less-rapid flow and have developed more extensive hydrophytic vegetation and hydric soils. These areas occur along portions of the stream channels and are typically represented by cismontane alkali marsh vegetation. The drainages generally connect to the Proctor Valley drainage, which runs roughly parallel to Proctor Valley Road flowing north/south, eventually draining into Upper Otay Reservoir and then Lower Otay Reservoir.

### 2.4.1.8 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the immigration and emigration of animals. Wildlife corridors contribute to population viability by ensuring the continual exchange of genes between populations, which helps maintain genetic diversity; providing access to adjacent habitat areas, representing additional territory for foraging and mating; allowing for a greater carrying capacity; and providing routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes (e.g., fires).

Habitat linkages are patches of native habitat that function to join two larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. The linkage represents a potential route for gene flow and long-term dispersal. Habitat linkages may serve as both habitat and avenues of gene flow for small animals such as

reptiles and amphibians. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat "islands" that function as "stepping stones" for dispersal.

The MSCP Plan identifies 16 Biological Resource Core Areas (BRCAs) and associated habitat linkages within the MSCP Plan area. BRCAs are generally defined in the MSCP as areas "supporting a high concentration of sensitive biological resources which, if lost or fragmented, could not be replaced or mitigated elsewhere" (MSCP 1998). Figure 2-2, Generalized Core and Biological Resources Area and Linkages, included in the MSCP Plan depicts portions of Village 14 almost entirely within the Jamul Mountains BRCA, with a small portion within the Sweetwater Reservoir/San Miguel Mountain/Sweetwater River BRCA (Figure 2.4-15, Biological Resources Core Area). The southern portions of Planning Areas 16/19 are located within the Jamul Mountains BRCA (MSCP 1998).

The Baldwin Otay Ranch Wildlife Corridors Studies Report (Ogden 1992a) identifies several local and regional wildlife corridors in the Project Area. Figure 2.4-16, Wildlife Corridor and Habitat Linkages, shows the locations of these corridors in conjunction with land ownership. Although landscapes in San Diego County have changed significantly over the last two decades, the corridors identified in this study are still viable and currently traverse between large areas of open lands. As shown in Figure 2.4-16, these corridors are given identifications and are primarily located within public lands that provide undeveloped areas connected to each other that support wildlife movement across the landscape, including movement between various reservoirs, creeks, and upland habitats.

Local corridor L4 traverses the Proctor Valley drainage and facilitates movement of species such as birds, small mammals, reptiles, and some amphibians. The corridor is currently within open space areas managed by various entities, except for the point where it crosses the southern and northern portions of the existing Proctor Valley Road. Within the Project Area, it traverses chamise chaparral, cismontane alkali marsh, coastal sage scrub vegetation types, non-native grassland, open water, unvegetated channel, developed land, and disturbed habitat. Local corridor L4 connects to L3 in the northern portion, which then passes south through BLM land in the eastern portion connecting to regional corridor R1. Where L3 connects to L4 in the south, L3 continues east through Otay Ranch RMP and MSCP Preserve lands and BLM land, and connects to R7 near the Jamul and San Ysidro Mountains. The L3 corridor is composed of two sections: the southern one that runs mostly east/west and the northern one that runs mostly north/south. Within the Project Area, the L3 corridor traverses Diegan coastal sage scrub, disturbed habitat, non-native grassland, open water, and southern mixed chaparral. Regional corridor R1 is designated in a general east/west direction and follows along drainages toward Sweetwater Reservoir to the west and Jamul Mountains to the east. Species that travel farther distances could use this corridor as part of their home range or dispersal, including mule deer, coyote, and cougar, as well as birds and other species. The R1 corridor traverses chamise chaparral, coastal

sage scrub vegetation types, non-native grassland, vernal pools, developed land, and disturbed habitat within the Project Area. Because Proctor Valley is situated adjacent to Otay and Sweetwater Reservoirs, it could be used as a stopover or foraging area for species traveling between the reservoirs.

## 2.4.2 Regulatory Setting

The Proposed Project would be 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 (Figure 2.4-17, Regional Planning Context). Refer to Section 2.4.2.3 for more information regarding the MSCP.

In addition, USFWS has designated critical habitat for certain species in the area that are listed as endangered or threatened under FESA. These designations influence whether, and to what extent, development is permitted, and what mitigation measures would be required to address impacts to sensitive resources. Regional resource planning has mainly been conducted through the Otay Ranch GDP/SRP and Otay Ranch RMP processes, as well as the multi-jurisdictional MSCP process. These plans are important to the evaluation of impacts to biological resources because the loss of resources is anticipated by these plans and compensated for through the assemblage of Preserve Lands to conserve Covered Species.

### *2.4.2.1 Federal Regulations*

Federal Endangered Species Act

FESA (16 U.S.C. 1531 et seq.) is implemented by USFWS through a program that identifies and provides for protection of various species of fish, wildlife, and plants deemed to be in danger of or threatened with extinction. As part of this regulatory act, FESA provides for designation of critical habitat, defined in FESA Section 3(5)(A) as specific areas within the geographical range occupied by a species where physical or biological features "essential to the conservation of the species" are found and that "may require special management considerations or protection." Critical habitat may also include areas outside the current geographical area occupied by the species that are nonetheless "essential for the conservation of the species."

Critical habitat for four species exists within the Project Area, including off-site improvement areas: coastal California gnatcatcher, Quino checkerspot butterfly, Otay tarplant, and spreading navarretia. The Project Area includes 12.8 acres of coastal California gnatcatcher critical habitat, 813.9 acres of Quino checkerspot butterfly critical habitat, 20.9 acres of Otay tarplant critical habitat, and 32.5 acres of spreading navarretia critical habitat. Figure 2.4-11, Critical Habitat, in this EIR shows the location of critical habitat within the Project Area.

### Migratory Bird Treaty Act

The Migratory Bird Treaty Act (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, or killing, or attempting to do so (16 U.S.C. 703 et seq.). 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.

### Clean Water Act

Pursuant to Section 404 of the Clean Water Act, ACOE regulates the discharge of dredged and/or fill material into "waters of the United States." The term "wetlands" (a subset of waters of the United States) is defined in 33 Code of Federal Regulations (CFR) 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(e).

### Bald and Golden Eagle Protection Act

Bald eagle (*Haliaeetus leucocephalus*) and golden eagle are federally protected under the BGEPA, passed in 1940 to protect bald eagle and amended in 1962 to include golden eagle (16 U.S.C. 668 et seq.). The BGEPA prohibits the take, possession, sale, purchase, barter, offering to sell or purchase, export or import, or transport of bald eagles and golden eagles and their parts, eggs, or nests without a permit issued by USFWS. The definition of "take" includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. The definition of "disturb" has been further clarified by regulation as follows: "Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior" (50 CFR 22.3).

The BGEPA prohibits any form of possession or taking of both eagle species, and the statute imposes criminal and civil sanctions, as well as an enhanced penalty provision for subsequent offenses. Further, the BGEPA provides for the forfeiture of anything used to acquire eagles in

violation of the statute. The statute exempts from its prohibitions on possession the use of eagles or eagle parts for exhibition, scientific, or Native American religious uses.

In November 2009, USFWS published the Final Eagle Permit Rule (74 FR 46836–46879) providing a mechanism to permit and allow for incidental (i.e., non-purposeful) take of bald and golden eagles pursuant to BGEPA (16 U.S.C. 668 et seq.). The previous year, 2008, USFWS adopted 50 CFR Part 22.11(a), which provides that a permit authorizing take under FESA section 10 applies with equal force to take of golden eagles authorized under the BGEPA. Following adoption of these regulations, USFWS issued guidance documents for inventory and monitoring protocols and for avian protection plans (USFWS 2010). In January 2011, USFWS released its Draft Eagle Conservation Plan Guidance aimed at clarifying expectations for acquiring take permits acquisition by wind power projects, consistent with the 2009 rule (USFWS 2011a).

On December 16, 2016, USFWS adopted additional regulations regarding incidental take of golden eagles and their nests (81 FR 91494 et seq.). Most of the new regulations address "programmatic eagle nonpurposeful take permits" such as those typically requested for alternative energy facilities—most notably wind farms—where there is a strong likelihood that the project in question will "take" eagles throughout its entire operational life. For example, the new regulations extend the duration of such permits from 5 to 30 years (81 FR 91494 et seq.). In addition, the new regulations modify the definition of the BGEPA's "preservation standard" to mean "consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and the persistence of local populations throughout the service range of each species" (81 FR 91496 et seq.).

#### *2.4.2.2 State Regulations*

##### California Endangered Species Act

CDFW administers CESA (California Fish and Game Code, Section 2050 et seq.), which prohibits the "take" of plant and animal species designated by the California Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

Sections 3511, 4700, and 5515 of the California Fish and Game Code designate certain birds, mammals, and fish, respectively, as "fully protected" species. These species may not be taken or

possessed without a permit from the Fish and Game Commission, and such take may only occur pursuant to scientific research or in connection with an authorized NCCP. No "incidental take" of fully protected species is allowed.

CESA Sections 2080 through 2085 address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (California Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

Section 2081(b) and (c) of the California Fish and Game Code authorizes take of endangered, threatened, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. In such cases, CDFW issues the applicant an Incidental Take Permit, which functions much like an Incidental Take Statement in the federal context. Sections 2081(b) and (c) also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, Section 2080.1 of CESA allows CDFW to adopt a federal Incidental Take Statement or a 10(a) permit as its own, based on its findings that the federal permit adequately protects the species and is consistent with state law. As mentioned previously, CDFW may not issue a Section 2081(b) Incidental Take Permit for take of "fully protected" species. The California Fish and Game Code lists the fully protected species at Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish).

### California Environmental Quality Act

CEQA requires identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guideline 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guideline 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guideline 15380(c). CEQA also

requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

## California Fish and Game Code

### Birds and Mammals

According to Sections 3511 and 4700 of the California Fish and Game Code, which regulate birds and mammals, respectively, a fully protected species may not be taken or possessed. In fact, CDFW may not authorize the take of such species except (i) for necessary scientific research, (ii) for the protection of livestock, and (iii) when the take occurs for fully protected species within an approved NCCP, such as the MSCP that covers the Project Area.

### Resident and Migratory Birds

The California Fish and Game Code provides protection for wildlife species. It states that no mammals, birds, reptiles, amphibians, or fish species listed as fully protected can be "taken or possessed at any time." In addition, CDFW affords protection over the destruction of nests or eggs of native bird species (California Fish and Game Code Section 3503), and it states that no birds in the orders of Falconiformes or Strigiformes (birds of prey) can be taken, possessed, or destroyed (California Fish and Game Code Section 3503.5). CDFW cannot issue permits or licenses that authorize the take of any Fully Protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock (California Fish and Game Code Section 3511). Separate from federal and state designations of species, CDFW designates certain vertebrate species as Species of Special Concern based on declining population levels, limited ranges, and/or continuing threats that have made them vulnerable to extinction.

## California Native Plant Protection Act

The Native Plant Protection Act of 1977 (California Fish and Game Code Section 1900–1913) directed CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare," and to protect endangered and rare plants from take. When CESA was passed in 1984, it expanded on the original Native Plant Protection Act, enhanced legal protection for plants, and created the categories of "threatened" and "endangered" species to parallel FESA. CESA categorized all rare animals as threatened species under the act, but did not do so for rare plants, which resulted in three listing categories for plants in California: rare, threatened, and endangered. The Native Plant Protection Act remains part of the California Fish and Game Code, and mitigation

measures for impacts to rare plants are specified in a formal agreement between CDFW and project proponents.

#### Streambed Alteration Agreement

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required for impacts to jurisdictional resources, including streambeds and associated riparian habitat (California Fish and Game Code Section 1602 et seq.).

#### Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Water Code, Section 13000 et seq.) protects water quality and the beneficial uses of water. It applies to surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop regional basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of statewide and basin plans. Waters regulated under the Porter–Cologne Water Quality Control Act include isolated waters that are no longer regulated by ACOE. Developments with impacts to jurisdictional waters must demonstrate compliance with the goals of the act by developing stormwater pollution prevention plans (SWPPPs), standard urban stormwater mitigation plans, and other measures to obtain a Clean Water Act Section 401 certification.

### *2.4.2.3 Regional Regulations*

#### San Diego County General Plan and Community and Subregional Plans

The Conservation and Open Space Element (Chapter 5) of the County's General Plan provides land-use-based conservation goals and policies that protect the ecological and lifecycle needs of threatened, endangered, or otherwise sensitive species and their associated habitats. The Conservation and Open Space Element outlines the goals and policies pertaining to each type of open space, not all of which are for the preservation of biological resources (County of San Diego 2011b). Resource Conservation Areas are described and delineated in each of the Community and Subregional Plans. Each Resource Conservation Area has been designated for a purpose specific to that area. When a site is located within a mapped Resource Conservation Area, that project must comply with the relevant policies for that Resource Conservation Area (e.g., avoidance of oaks).

## Multiple Species Conservation Program Plan

The Proposed Project is located within the boundaries of the MSCP Plan (MSCP 1998). 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 (Figure 2.4-17). Local jurisdictions and special districts implement their respective portions through subarea plans. The combination of the MSCP Plan and subarea plans serve as a Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of FESA and as an NCCP pursuant to the California NCCP Act of 1991.

The MSCP Plan study area encompasses 582,243 acres within the southwestern portion of San Diego County. As stated in the MSCP Plan, an objective of the MSCP is to conserve a connected system of biologically viable habitat lands in a manner that maximizes the protection of sensitive species and precludes the need for future listings of species as threatened or endangered. The MSCP Plan identifies an MHPA, which is the area within which the permanent MSCP Preserve will be assembled and managed for its biological resources. The MHPA is defined in many areas by mapped boundaries in figures in the MSCP Plan, and is also defined by quantitative targets for conservation of vegetation communities and goals and criteria for preserve design. The MSCP Plan targets 171,917 acres within the MHPA for conservation (MSCP 1998).

A total of 85 plant and animal species are "covered" by the MSCP Plan. With approval of each subarea plan and corresponding Implementing Agreement, each participating local jurisdiction receives permits and/or authorization to directly impact or "take" MSCP Covered Species. The Covered Species include species listed as endangered or threatened under FESA or CESA, as well as unlisted species. Table 3-4a in the MSCP Plan provides a list of the MSCP Covered Species. Table 3-5 in the MSCP Plan includes specific conditions required for take authorizations (MSCP 1998).

## MSCP County of San Diego Subarea Plan

The MSCP County of San Diego Subarea Plan implements the MSCP Plan within the unincorporated areas of the County of San Diego and encompasses 252,132 acres (Figure 2.4-18, County of San Diego MSCP South County Sub-Area). The MSCP County Subarea Plan provides "take" coverage for 85 species (County of San Diego 1997), provided the County satisfies the conservation and mitigation goals set forth in the MSCP County Subarea Plan Implementing Agreement (USFWS et al. 1998).

The MSCP County Subarea Plan is divided into three segments: South County, Lake Hodges, and Metro-Jamul-Lakeside. The Project Area is located within the boundaries of the South County Segment. The maps associated with the South County Segment in the MSCP County Subarea Plan (County of San Diego 1997) delineate where habitat will be conserved.

The MSCP County Subarea Plan and Implementing Agreement provide that all development-related impacts to Covered Species within take-authorized areas or areas found to be in compliance with the County's BMO are deemed mitigated through a project applicant's participation in the MSCP Plan. Specifically, projects with an agreed upon "hardline" MSCP Preserve are authorized, within certain limits, to "take" any of the 85 Covered Species, and they may do so without applying for or securing incidental take permits from CDFW or USFWS (County of San Diego 1997). Projects that do not have an agreed upon "hardline" boundary must demonstrate conformance with the BMO. Section 86.502 of the 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)." Section 86.503 of the BMO, Exemptions, identifies 11 criteria for exemptions. Three areas within Village 14, identified as PV1, PV2, and PV3, do not qualify for any of these exemptions. Accordingly, Appendix A of the BTR provides a BMO Analysis and Findings Report which analyzes PV1, PV2, and PV3 pursuant to the requirements of the BMO. 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 2010c).

In addition, because the MSCP County Subarea Plan and Implementing Agreement incorporate the Otay Ranch RMP and Preserve, any Otay Ranch project that participates in and is consistent with the MSCP is deemed to have mitigated its CEQA impacts on any affected Covered Species. Thus, for example, development impacts to orangethroat whiptail—a Covered Species—are considered already mitigated due to the habitat set aside in the MSCP Preserve in anticipation of development. Note, however, that significant impacts to species not covered by the MSCP County Subarea Plan need to be mitigated in accordance with the Otay Ranch RMP on a Ranch-wide basis. If a species is not addressed in the Otay Ranch RMP, then it must be mitigated on a project-specific basis.

With regard to Otay Ranch, in 1993 the County of San Diego and City of Chula Vista approved the "hardline" boundary that was originally established by the Otay Ranch RMP. This "hardline" boundary was incorporated into the South County Segment of the County Subarea Plan. Chapter 5.1 of the Otay Ranch RMP identified an 11,375-acre Otay Ranch Preserve, the boundaries of which were depicted in Exhibit 24 of the Otay Ranch RMP (City of Chula Vista and County of San Diego 1996). The 11,375-acre Preserve was then incorporated into the MSCP County Subarea Plan as reflected in, among other documents, the MSCP County Subarea Plan Implementing Agreement. Pursuant to Section 10.5(A)(2) of the Implementing Agreement, the County is required to protect the 11,375-acre Preserve (or equivalent) (USFWS et al. 1998) ( i.e., the same acreage depicted in Exhibit 24 of the Otay Ranch RMP referenced above). Note that the Preserve's hardline boundary also established the hardline boundary for the approved Development Footprint. This hardline Development Footprint became the "take-authorized" area for Otay Ranch.

*MSCP County of San Diego Subarea Plan Implementing Agreement*

The Implementing Agreement between USFWS, CDFW, and the County of San Diego is a contractual document that dictates how the MSCP and MSCP County Subarea Plan will be implemented within unincorporated areas of the County. It assigns rights and duties to the various signatories to the agreement, and it provides mechanisms for addressing contingencies that may or may not occur in the future. In this way, the MSCP County of San Diego Subarea Plan Implementing Agreement gives the MSCP both structure and flexibility. (See Implementing Agreement, Recital 1.3: "A goal of the MSCP is to conserve biodiversity in the MSCP Plan Area and to achieve certainty in the land development process for private sector and public sector land development projects" (USFWS et al. 1998).)

The signatories to the MSCP County of San Diego Subarea Plan Implementing Agreement are CDFW, USFWS, and the County. However, the agreement also grants certain rights to "Third Party Beneficiaries" (i.e., the landowners who convey property to the MSCP Preserve and thereby earn development privileges under the MSCP and the MSCP County Subarea Plan). Specifically, the Implementing Agreement provides the following (USFWS et al. 1998):

> Upon execution of this Agreement by the Parties and the issuance of Take Authorizations by USFWS and CDFG [California Department of Fish and Game, now CDFW], the County may allow within the Subarea the Incidental Take of Covered Species Subject to Incidental Take by Third Party Beneficiaries under the direct control of the County, specifically including landowners and public and private entities undertaking land development activities in conformance with an approval granted by the County in compliance with this Section and Sections 9 and 10 of this Agreement.

Through this provision of the MSCP County of San Diego Subarea Plan Implementing Agreement, third-party beneficiaries can obtain take authorization directly from the County, and need not obtain incidental take permits from CDFW or USFWS.

The MSCP County of San Diego Subarea Plan Implementing Agreement also assures third-party beneficiaries that their mitigation obligations, as set forth in the MSCP Plan, would not change over time, unless certain extraordinary conditions arise (Implementing Agreement, 9.5, 9.6; Implementing Agreement, 17C( USFWS et al. 1998)). Under the Implementing Agreement, "Extraordinary Circumstances" means either of the following (USFWS et al. 1998):

1. a significant, unanticipated adverse change in the population of any Covered Species or its habitat within the MSCP Plan Area; or

2. any significant new or additional information relevant to the MSCP that was not anticipated by the parties at the time the MSCP was approved and that would likely result in a significant adverse change in the population of any Covered Species or its habitat within the MSCP Plan Area.

The burden to establish "Extraordinary Circumstances" rests with the director of CDFW or regional director or director of USFWS. They must demonstrate to the County, "using the best scientific and commercial data available that is clear and convincing," that such Extraordinary Circumstances exist (Implementing Agreement, 9.6C (USFWS et al. 1998)). In the event the County agrees that Extraordinary Circumstances do exist, the Implementing Agreement allows the County to devise "Additional Conservation Measures," but it may not impose such measures on third-party beneficiaries, since this would erode the "certainty" built into the Agreement (Implementing Agreement, 9.6E (USFWS et al. 1998)). Instead, the Additional Conservation Measures are limited to modifications of the County's "Preserve management program or habitat acquisition program and shall not involve the commitment of additional land or additional land restrictions or additional financial compensation on the part of the County or Third Party Beneficiaries without their consent" (Implementing Agreement, 9.6E (USFWS et al. 1998)). In other words, any additional conservation measures to address Extraordinary Circumstances must be paid for or performed by CDFW and/or USFWS; the third-party beneficiaries cannot be required to do or give up more than what is already mandated in the MSCP Plan and MSCP County Subarea Plan (USFWS et al. 1998).

### Otay Ranch Resource Management Plan Phase I and II

The Otay Ranch RMP is a comprehensive planning document that addresses the preservation, enhancement, and management of sensitive natural and cultural resources on the approximately 23,000-acre Otay Ranch property and was designed specifically for Otay Ranch (City of Chula Vista and County of San Diego 1996). The Otay Ranch RMP was prepared in two phases. Otay Ranch RMP Phase I identifies Preserve areas within Otay Ranch and contains policies for species and habitat conservation and long-term management of the Otay Ranch RMP Preserve. Otay Ranch RMP Phase II includes Otay Ranch-wide studies that provide details on conveyance, management, and funding for the Otay Ranch RMP Preserve. Portions of the RMP Phase II were adopted by the County of San Diego, and the Otay Ranch RMP has been incorporated into the MSCP City of Chula Vista Subarea Plan.

The Otay Ranch RMP is intended to be the functional equivalent of the County of San Diego Resource Protection Ordinance (RPO) (County of San Diego 2007) for Otay Ranch. As such, subsequent Otay Ranch projects are exempted from the provisions of the RPO if determined to be consistent with a comprehensive resource management and protection program, such as the Otay Ranch RMP.

In addition, the RMP is a component of the MSCP County Subarea Plan. For example, Section 3.3.3.7 of the MSCP County Subarea Plan states, "All conditions and exceptions listed in the Otay Ranch approval documents, including the Resource Management Plan (Volume I) are hereby incorporated by reference, with respect to easement requirements, revegetation requirements, allowed facilities within the Preserve area, etc." (County of San Diego 1997).

The Otay Ranch RMP and the 11,375-acre Otay Ranch RMP Preserve serve as the basis for mitigation of biological impacts identified in the Otay Ranch PEIR (City of Chula Vista and County of San Diego 1993a; Implementing Agreement Section 10.5.2 (USFWS et al. 1998)). The RMP includes conveyance procedures for dedicating parcels of land to the Otay Ranch RMP Preserve and establishes an obligation for each new development to convey its fair share of the Otay Ranch RMP Preserve. Fair-share contribution requirements are established in the RMP as a proportion of Ranch-wide development to Ranch-wide Preserve Land. The loss of sensitive resources would be mitigated through the conveyance of 1.188 acres of Otay Ranch RMP Preserve land to the POM for every developable acre impacted. The Preserve Conveyance Obligation serves to mitigate throughout the entire Otay Ranch RMP Preserve, and therefore enables the RMP Preserve system designed for Otay Ranch to be assembled and conveyed to the POM to be managed by one entity regardless of ownership.

The Otay Ranch RMP Preserve is a hardline Preserve and includes land reserved for mitigation stemming from impacts to sensitive resources as a result of Otay Ranch development. The Otay Ranch RMP Preserve was designed and would be managed specifically for protection and enhancement of multiple species present on Otay Ranch. These dedicated conservation lands would also serve to connect large areas of open space through a series of wildlife corridors, including connections between regional open spaces such as the Otay Reservoir System and San Miguel Mountain. The Otay Ranch RMP Preserve is included in the MSCP County Subregional Plan Preserve.

On March 6, 1996, the Chula Vista City Council and County of San Diego Board of Supervisors authorized the formation of an Otay Ranch POM through the execution of a Joint Powers Agreement between the City of Chula Vista and the County. The POM is responsible for management of resources, restoration of habitat, and enforcement of open space restrictions for the entire Otay Ranch RMP Preserve once the Preserve is formally established and title to the land is conveyed to the POM. The MSCP Chula Vista Subarea Plan defines the POM as "the entity responsible for overseeing the day-to-day and long-range Preserve management activities within the Otay Ranch RMP Preserve, including but not limited to management of resources, restoration of habitat, and enforcement of open space restrictions" (City of Chula Vista 2003).

Proposed Project impacts to sensitive resources within the Village 14 and Planning Areas 16/19 Development Footprint are subject to the goals, objectives, and policies set forth in the Otay

Ranch RMP. These goals, objectives, and policies include the types and locations of impacts, conservation of populations, and habitat for, sensitive species as well as Preserve Conveyance Obligation for overall impacts (City of Chula Vista and County of San Diego 1996).

### MSCP City of San Diego Subarea Plan

The Proposed Project encompasses 34.5 acres within the MSCP City of San Diego Subarea Plan Area, specifically known as Cornerstone Lands. This portion of the Proposed Project would include realignment and improvements to Proctor Valley Road. The MSCP City of San Diego Subarea Plan area (City of San Diego 1997) encompasses 206,124 acres within the MSCP Subregional Plan study area. The subarea is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. The City of San Diego MHPA represents a hardline Preserve, in which boundaries have been specifically determined. It is considered an urban Preserve that is constrained by existing or approved development, and is comprised of linkages connecting several large areas of habitat.

The City of San Diego's MHPA is approximately 56,831 acres and includes approximately 47,910 acres within City of San Diego jurisdiction, and additional City of San Diego–owned lands (8,921 acres) in the unincorporated areas around the San Vicente Reservoir, the Otay Reservoir System, and Marron Valley.

#### *Cornerstone Lands*

The City of San Diego Water Department owns four large areas of land within the MSCP City of San Diego Preserve system: lands surrounding portions of the Otay Reservoir System; lands surrounding San Vicente Reservoir; lands owned by the City of San Diego in Marron Valley; and watershed management lands around Hodges Reservoir, including the portion of San Pasqual Valley from Hodges Reservoir east to the area referred to as the "narrows." These lands contain valuable biological resources and have each been identified as a core biological resource area. These lands total 10,400 acres and are commonly referred to as the Cornerstone Lands because they are considered essential building blocks for creating a viable habitat Preserve system. Except for the lands around Hodges Reservoir, the Cornerstone Lands are located within unincorporated areas of the County and are within the City of San Diego's jurisdiction.

The San Diego City Charter restricts the use and disposition of water utility assets and, thus, the City of San Diego Water Department must be compensated for any title restrictions placed on the Cornerstone Lands. To meet the policy objectives of the MSCP and comply with the City of San Diego Charter, the City of San Diego entered into a Conservation Land Bank Agreement with the Wildlife Agencies for the Cornerstone Lands.

Proposed Project realignment and improvements to Proctor Valley Road South would affect some parts of Cornerstone Lands that are also located within the City of San Diego MHPA. Specifically, approximately 0.3 miles of the road between the South Village 14 and Central Village 14 would be realigned to the east to provide a 100-foot buffer from the watershed for vernal pools that are located in the Cornerstone Land properties and 1.2 miles of road south of South Village 14 would be improved. The MSCP City of San Diego 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 Preserve system "is not precluded based on the City's Cornerstone Lands Conservation Bank Agreement" (City of San Diego 1997). Impacts to Cornerstone Lands are discussed in Section 2.4.3.

### MSCP City of Chula Vista Subarea Plan

The Proposed Project encompasses 5.4 acres within the MSCP Chula Vista Subarea Plan boundaries. This portion of the Proposed Project would include realignment and improvements to Proctor Valley Road. The MSCP Chula Vista Subarea Plan was approved by the City of Chula Vista in May 2003 and received take authorization from the Wildlife Agencies (USFWS and CDFW) in January 2005. The Chula Vista Subarea Plan provides for conservation of upland habitats and species through Preserve design, regulation of impacts and uses, and management of the MSCP Chula Vista Subarea Plan Preserve. The MSCP Chula Vista Subarea Plan Preserve system is mapped as either 100% or 75%–100% Conservation Area. The 100% Conservation Areas are delineated by hardline boundaries, whereas the 75%–100% Conservation Areas are defined by a quantitative and qualitative target for habitat conservation where final boundaries are not yet determined. The 100% Conservation Areas are either already in public ownership or would be dedicated to the MSCP Chula Vista Subarea Plan Preserve as part of the development approval process for Covered Projects. Conversely, the Development Footprint consists of mapped areas within which the "take" of Covered Species is authorized by the MSCP Chula Vista Subarea Plan Section 10(a)(1)(B) (City of Chula Vista 2003) and Section 2835 permit.

The MSCP Chula Vista Subarea Plan identifies "Covered Projects" as those projects involving land use development within the City of Chula Vista for which hardline MSCP Preserve boundaries have been established and where conservation measures consistent with the MSCP Plan and Chula Vista Subarea Plan have been or will be specified as binding conditions of approval in a project's plans and approvals. Covered Projects provide protection of narrow endemic speciesthrough consideration of narrow endemic species in the MSCP Preserve design for those projects. The MSCP Chula Vista Subarea Plan defines narrow endemic species as species that are highly restricted by their habitat affinities, soil conditions, or other ecological factors, including specific geographic and climatological conditions that support species with limited habitat ranges (City of Chula Vista 2003). Impacts to narrow endemic species require additional avoidances and minimizations of impacts to ensure that their long-term viability is maintained. Take of Covered

Species, including narrow endemic species, for development areas within Covered Projects would be extended at the time of development approval. There are no limitations on impacts to narrow endemic species within the development areas of Covered Projects.

Chapter 6.0 of the MSCP Chula Vista Subarea Plan identifies permitted uses within the MSCP Chula Vista Subarea Plan Preserve. Section 6.3.3 of the Subarea Plan differentiates between "Planned Facilities" and "Future Facilities." Planned Facilities are major roads and infrastructure that were planned for development through existing plans and/or project approvals (i.e., General Plan and Otay Ranch GDP/SRP) and allowed to be constructed, operated, and maintained within the MSCP Chula Vista Subarea Plan Preserve at the time of writing of the Subarea Plan. These Planned Facilities are identified in Table 6-1 of the MSCP Chula Vista Subarea Plan (City of Chula Vista 2003).

Future Facilities are those facilities necessary to support planned development that were not identified at the time of the Subarea Plan but were anticipated to be required. Table 6-2 of the MSCP Chula Vista Subarea Plan identifies Future Facilities and Implementation Criteria. These facilities include detention basins, fire access roads, maintenance and operations roads, and new trails (City of Chula Vista 2003).

Take Authorization for Planned Facilities is expressly provided for through the MSCP Chula Vista Subarea Plan. Impacts to Covered Species and habitats from Planned Facilities within or required as part of Covered Projects both outside of and within the MSCP Chula Vista Subarea Plan Preserve are mitigated by Covered Project conditions and mitigation requirements contained in the MSCP Chula Vista Subarea Plan and are not subject to the Habitat Loss and Incidental Take Ordinance. Impacts to Covered Species and habitats resulting from Planned Facilities located outside of Covered Projects, both outside of and within the MSCP Chula Vista Subarea Plan Preserve, would be subject to and mitigated pursuant to the Habitat Loss and Incidental Take Ordinance. Planned Facilities both outside of and within the MSCP Chula Vista Subarea Plan Preserve are considered conditionally compatible with the MSCP Chula Vista Subarea Plan Preserve, subject to the Facilities Siting Criteria contained in Section 6.3.3.4, protection of narrow endemic species contained in Section 5.2.3, and protection of wetlands contained in Section 5.2.4 of the MSCP Chula Vista Subarea Plan (City of Chula Vista 2003).

### *Facility Siting Criteria*

Within the City of Chula Vista, both Planned and Future Facilities located within the MSCP Chula Vista Subarea Plan Preserve are subject to the Facilities Siting Criteria contained in Section 6.3.3.4 of the MSCP Chula Vista Subarea Plan (City of Chula Vista 2003). Compliance with the Facilities Siting Criteria ensures that the facilities located within the MSCP Chula Vista Subarea Plan Preserve have been sited within the least environmentally sensitive areas and that

impacts to the MSCP Chula Vista Subarea Plan Preserve have been minimized to the maximum extent practical. A summary of the Facilities Siting Criteria is provided in Section 6.3.3.4 and Table 6-1 of the MSCP Chula Vista Subarea Plan (City of Chula Vista 2003).

### *Narrow Endemic Species Protection*

The following two provisions are applicable to the 5.4 acres of the portion of the Project Area located in the City of Chula Vista. As analyzed in Section 2.4.3.1, the impacts to narrow endemic species have been mitigated for in association with the Rolling Hills Ranch project, and, therefore, the Proposed Project is in compliance with the narrow endemic species protection requirements as outlined below.

### *100% Conservation Areas within Covered Projects*

Projects located within the 100% Conservation Areas of Covered Projects (i.e., within the MSCP Chula Vista Subarea Plan Preserve) are limited to uses described in Sections 6.1, 6.2, and 6.3 of the MSCP Chula Vista Subarea Plan (City of Chula Vista 2003). Impacts to covered narrow endemic species from Planned and Future Facilities located within the 100% Conservation Areas of Covered Projects would be avoided to the maximum extent practicable. Where impacts are demonstrated to be unavoidable, impacts are limited to 5% of the total narrow endemic species population within a project site. Unavoidable impacts to narrow endemics are subject to the equivalency findings, limitations, and provisions of Section 5.2.3.6, Equivalency Findings, of the MSCP City of Chula Vista Subarea Plan (City of Chula Vista 2003).

If, after comprehensive consideration of avoidance and minimization measures, a project's impacts exceed 5% of the covered narrow endemic species population, the City of Chula Vista must make a determination of biologically superior preservation consistent with Section 5.2.3.7 of the MSCP Chula Vista Subarea Plan (City of Chula Vista 2003). To make such a determination, the City of Chula Vista must demonstrate that a project, despite exceeding the 5% impact threshold, would still result in an overall Preserve design and configuration that is equal or greater than an alternative design and would not exceed the impact threshold. As part of this assessment, the City of Chula Vista must analyze a project's equivalency findings regarding impacts to covered narrow endemic species, as defined in Section 5.2.3.6 of the Chula Vista Subarea Plan (City of Chula Vista 2003), and then send that assessment to the Wildlife Agencies for review.

### *Wetlands Protection*

Development projects within the City of Chula Vista that contain wetlands are required to demonstrate that impacts to wetlands have been avoided to the greatest extent practicable and, where impacts are nonetheless proposed, that such impacts have been minimized. For unavoidable impacts to wetlands, the City of Chula Vista would apply the wetlands mitigation

ratios identified in MSCP Chula Vista Subarea Plan. The wetlands mitigation ratios provide a standard for each habitat type, but may be adjusted depending on the functions and values of the impacted wetlands and the wetlands mitigation proposed by a project. The City of Chula Vista may also consider the wetland habitat type being impacted and used for mitigation in establishing whether these standards have been met.

## 2.4.3 Analysis of Project Effects and Determination as to Significance

### Definition of Impacts

This section addresses direct, indirect, and cumulative impacts to biological resources that would result from implementation of the Proposed Project. A number of mitigation measures are included as part of the Proposed Project to avoid, minimize, and/or mitigate potential impacts to less than significant.

### Direct Impacts

Direct impacts include short-term, construction-related impacts, as well as permanent impacts that would result in the loss of a biological resource. For purposes of this EIR, direct impacts were quantified by overlaying the anticipated limits of grading over the mapped biological resources and quantifying impacts (Figure 2.4-19, Impacts to Biological Resources – Legend, and Figures 2.4-19a through 2.4-19cc, Impacts to Biological Resources). Impacts related to development of the Proposed Project within Village 14 and Planning Areas 16/19 would occur on approximately 722.6 acres;[8] the remainder of the Project Area would be designated as Otay Ranch RMP Preserve. Additional development would occur off site on approximately 85.4 acres of lands owned by the City of San Diego, City of Chula Vista, and CDFW, and on a County of San Diego Proctor Valley Road easement, including 15.8 acres in Planning Areas 16/19 (CDFW and County).

### Indirect Impacts

Indirect impacts result from adverse "edge effects," either short-term indirect impacts related to construction, or long-term, chronic indirect impacts associated with the location of urban development in proximity to biological resources within natural open space. During construction of the Proposed Project, short-term indirect impacts may include dust and noise, which could temporarily disrupt habitat and species vitality; changes in hydrology; disruption of wildlife activity due to increased human activity; and construction-related chemical pollutants. However,

8 21.9 acres would be permanent and temporary impacts associated with road improvements within the MSCP Preserve.

the Proposed Project grading would be subject to restrictions and requirements that address erosion and runoff, including the federal Clean Water Act and the National Pollution Discharge Elimination System, and preparation of a SWPPP and standard urban stormwater management plan. These programs are expected to minimize Proposed Project impacts with respect to erosion/runoff and the potential impacts from chemical pollutants.

Long-term indirect impacts to adjacent open space may include generation of fugitive dust, intrusions by humans and domestic pets, noise, lighting, invasion by exotic plant and wildlife species, effects of toxic chemicals (fertilizers, pesticides, herbicides, and other hazardous materials), urban runoff from developed areas, litter, fire, habitat fragmentation, and hydrologic changes. As required by the Otay Ranch RMP, the Proposed Project would include a 100-foot Preserve edge buffer, which is detailed in the Preserve Edge Plan. The Preserve edge is a 100-foot buffer between the Preserve and development and is not located within the Otay Ranch RMP Preserve. The 100-foot buffer is intended to lessen the edge effects of development on the Otay Ranch RMP Preserve. The Preserve Edge Plan details the uses 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 (RH Consulting Group et al. 2017).

### Cumulative Impacts

Cumulative impacts refer to incremental individual environmental effects of two or more projects when considered together. These impacts taken individually may be minor but become collectively significant as they occur over a period of time. Cumulative impacts are discussed in Section 2.4.4.

#### *2.4.3.1 Guideline 4.1: Candidate, Sensitive, or Special-Status Species*

##### Guidelines for the Determination of Significance

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) was used to evaluate direct, indirect, and cumulative impacts. Each general subject area is broken into more specific County guidelines and lettered accordingly to provide additional clarity on this complex resource topic.

A significant impact would result if:

***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 the CDFW or U.S. Fish and Wildlife Service (USFWS).***

## Analysis

Special-status species are those species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened population sizes. Candidate species are eligible for listing as federal or state threatened or endangered species.

**Guideline 1A: Would the project impact one or more individuals of a species listed as federally or state endangered or threatened?**

Only one federally or state-listed plant species, Otay tarplant, occurs within 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—but the Proposed Project would only impact coastal California gnatcatcher, as further discussed below. The Proposed Project would avoid impacts to features known to be occupied by San Diego fairy shrimp. Neither Quino checkerspot butterfly nor Hermes copper butterfly were detected, but potential habitat with host plants for both species occurs within the Project Area.

### Otay Tarplant

Otay tarplant is listed as federally threatened and state endangered. The Proposed Project would result in impacts to Otay tarplant designated critical habitat within the Village 14 Development Footprint and off-site improvement areas. A total of 8.9 acres of designated critical habitat would be impacted from the Village 14 Development Footprint, and off-site improvements would impact 8.4 acres of designated critical habitat, consisting of 3.5 acres of permanent impacts and 4.9 acres of temporary construction impacts. Areas of Otay tarplant critical habitat located within the northwestern portion of the Project Area, within the Village 14 Development Footprint, are likely a mapping registration error. It appears that the critical habitat designation was based on parcel data, since the boundary of the critical habitat aligns directly with the parcel data. However, recent land survey data for the Project Area shows that the parcel boundary has been adjusted, with that boundary shifting to the north. As a result of this mapping registration change/error, there is a portion of Otay tarplant critical habitat that is now inaccurately mapped within the Project Area.

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 MSCP City of Chula Vista Subarea Plan.

The Proposed Project proposes improvements to approximately 0.25 miles of Proctor Valley Road South within the City of Chula Vista. The portion of Proctor Valley Road to be improved as part of the Proposed Project is considered a Planned Facility and would be subject to the Facilities Siting Criteria (see Section 6.1.7). Additionally, the portion of the road to be improved is within a 100% Conservation Area, and, therefore, is subject to the narrow endemic species and wetlands protection provisions of the MSCP Chula Vista Subarea Plan. However, as explained below, the impacts on narrow endemic species associated with these road improvements have been previously mitigated and, therefore, this portion of the Proposed Project is in compliance with the protection provisions of the MSCP Chula Vista Subarea Plan.

The portion of Proctor Valley Road that is located in the City of Chula Vista (the "easternmost reach" of the road) has been reviewed under CEQA as part of the Rolling Hills Ranch (also known as "Salt Creek Ranch"), a Covered Project. Therefore, impacts from the City of Chula Vista's portion of Proctor Valley Road have already been analyzed, disclosed, and mitigated.[9] 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 in a Letter Agreement between USFWS, CDFW, the City of Chula Vista, and Pacific Bay homes dated July 19, 2001 (see Appendix A to the BTR). Through this Letter Agreement, impacts to certain resources, including non-wetland MSCP Covered Species, do not require further mitigation. As part of the Letter Agreement between USFWS, CDFW, the City of Chula Vista, and Pacific Bay Homes, no further mitigation for narrow endemic species or other Covered Species, including Otay tarplant, are required within this easement area. This Letter Agreement was incorporated into the MSCP City of Chula Vista's Subarea Plan. Thus, direct off-site impacts to Otay tarplant individuals (a narrow endemic species) are not considered significant and are not discussed further in this EIR.

### Spreading Navarretia

There is no spreading navarretia found within the Project Area; however, there is 32.5 acres of USFWS designated critical habitat for this species in the southwest portion of the Project Area within the Village 14 Development Footprint (Figure 2.4-11). The Proposed Project would result

[9] See the Salt Creek Ranch Annexation General Development Plan Pre-Zone Final Environmental Impact Report (ECI/EIR-89-3); Salt Creek Ranch Sectional Planning Area Plan Final Supplemental EIR (EIR-91-03); Addendum to Final EIR (No 91-03) for Salt Creek Ranch Sectional Planning Area Plan; 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 (Appendix A to the BTR (Appendix 2.4-1 of this EIR)).

in impacts to critical habitat for spreading navarretia. Proposed Project development within the Village 14 Development Footprint would result in permanent impacts to 12.5 acres of critical habitat, which includes 3.1 acres of road impacts in the Otay Ranch RMP Preserve. Impacts within the Otay Ranch RMP Preserve would consist of 2.6 acres of permanent impacts from Proctor Valley Road, 0.4 acres for fuel modification, and 0.1 acres of temporary construction impacts. Off-site improvement areas associated with Proctor Valley Road would result in 1.6 acres of permanent impacts and 2.5 acres of temporary impacts.

Hermes copper butterfly has not been observed within the Project Area; however, the Proposed Project would result in impacts to suitable habitat for this species. Hermes copper butterfly is currently a candidate for federal listing and does not have designated critical habitat.

### Coastal California Gnatcatcher

Coastal California gnatcatcher was observed in the Project Area, including within both 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.

#### *Temporary Direct Impacts*

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 2.4.1). Short-term direct impacts to 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 (mitigation measure (**M-)BI-1**), through the placement of temporary construction fencing (**M-BI-2**), through restoration of temporarily impacted habitat (**M-BI-12**), and through noise-related measures (**M-BI-18**). The full text of mitigation measures is presented in Section 2.4.6, Mitigation Measures and Design Considerations. With these measures, potentially significant impacts to coastal California gnatcatcher would be mitigated to **less than significant**.

*Permanent Direct Impacts*

The Proposed Project's direct impacts on coastal California gnatcatcher habitat would be considered **significant** (**Impact BI-2**). The Proposed Project would result in the loss of 398.4 acres of coastal sage scrub (including disturbed and *baccharis*-dominated varieties). With respect to direct impacts on individual gnatcatchers, the Proposed Project provides for the preservation of habitat surrounding the three pairs within the Otay Ranch RMP Preserve in Village 14.[10] In addition, a coastal California gnatcatcher pair occurs within the Otay Ranch RMP Preserve in Planning Areas 16/19. Development would impact habitat surrounding one location with an observed male.

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**). 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 convey approximately 264.2 acres of unimpacted coastal sage scrub to the Otay Ranch RMP Preserve (including 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. Although the exact location is not known at this time, it is likely that the conveyance site will include suitable coastal California gnatcatcher habitat. The full text of mitigation measures is presented in Section 2.4.6. With the recommended mitigation measures, the Proposed Project's potentially significant direct impacts to coastal California gnatcatcher habitat would be mitigated to **less than significant**.

Implementation of the Proposed Project would contribute to the preservation of known locations of coastal California gnatcatcher, along with suitable habitat for the species, through implementation of **M-BI-3**. Therefore, the Proposed Project would be in compliance with the Otay Ranch RMP requirements, and impacts would be **less than significant**.

Should the Proposed Project's grading or construction activities disturb any active nests or the young of coastal California gnatcatcher, the impact would violate FESA and the MBTA, and would be considered significant. To prevent such impacts, **M-BI-6** states that vegetation clearing, grubbing, and grading should occur outside the typical nesting period for most bird species and raptors (i.e., outside the period February 1–August 31, and as early as January 1 for

[10] See Table 2.4-10 at the end of this section.

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 the 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**.

### Quino Checkerspot Butterfly

Although Quino checkerspot butterfly, federally listed as endangered, this species 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. The Proposed Project would result in impacts to 793.7 acres of potential habitat. 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.The Project Area includes 813.9 acres of USFWS designated critical habitat for this species, of which 502.3 acres would be impacted by the Proposed Project (Figure 2.4-20, Impacts to Critical Habitat). Specifically, 274.6 acres is located in the Otay Ranch RMP Preserve. The remaining 37 acres is within Conserved Open Space.

#### *Temporary Direct Impacts*

Proposed Project construction would have temporary direct impacts to suitable habitat for Quino checkerspot butterfly, including unintentional habitat loss, introduction of invasive species, and potential disruption of wildlife activities. Such impacts would be considered significant (discussed further in Section 2.4.3.4). 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 (**MBI-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 2.4.6. With these measures, potentially significant impacts to Quino checkerspot butterfly habitat would be mitigated to **less than significant**.

#### *Permanent Direct Impacts*

As discussed previously, the Proposed Project would affect 793.7 acres of potential habitat for Quino checkerspot butterfly, resulting in a **significant impact** (**Impact BI-1**). These impacts would be mitigated to **less than significant** through implementation of the following measures, described in Section 2.4.6: **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.

The on-site Otay Ranch RMP Preserve, non-graded LDAs, and Conserved Open Space areas provide habitat value for the species, especially when combined with the additional conservation required by the Otay Ranch RMP. As defined in Chapter 1, Project Description, of this EIR, Conserved Open Space areas are those that remain undisturbed, are maintained by a homeowner's association (HOA) or an assessment district/mechanism, and could potentially be added to Otay Ranch RMP Preserve Lands. LDAs are open space areas that are privately owned and where development is not allowed other than infrastructure such as roads and utilities. LDAs can also be used for fuel modification zones. LDAs and Conserved Open Space areas are currently not considered part of the Otay Ranch RMP Preserve.

The Quino checkerspot butterfly habitat within the Otay Ranch RMP Preserve and non-impacted areas (LDA and Conserved Open Space) contains a mosaic of open habitat communities along with some chaparral areas, hilltop areas, cryptogamic soils, and scattered host plant areas. The habitat is also connected to other large blocks of preserved habitat that is considered suitable for Quino checkerspot butterfly (Figure 2.4-21, Preservation of Documented QCB Sightings in County Subarea Plan). As shown in Figure 2.4-21, 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 System, and also farther south (CDFW 2017; USFWS 2017). The Proposed Project's design would maintain contiguous habitat with these locations with areas to the north on San Miguel Mountain; provide widespread Quino checkerspot butterfly resource areas, including hilltops and nectaring resources; and provide host plant patches to help maintain metapopulation dynamics for the species. Per **M-BI-4**, the Proposed Project would place an open space easement over 72.4 acres of potential habitat. Per M-BI-3 and **M-BI-8**, the Proposed Project would convey 404.8 acres of potential habitat to the Otay Ranch RMP Preserve. As a condition of the RMP, and open space easement will be placed over potential habitat within 83.7 acres of non-graded LDA.

The Proposed Project would preserve potential habitat for Quio checkerspot on site (in the Project Area), plus additional conservation conveyance (off site), as required under the Otay Ranch RMP, through **M-BI-3, M-BI-4** and **M-BI-8.** These measures would mitigate the potentially significant impacts to Quino checkerspot butterfly **less than significant**.

### Hermes Copper Butterfly

#### *Temporary Direct Impacts*

Impacts to habitat for Hermes copper butterfly habitat from construction-related activities would include unintentional habitat loss, temporary impacts to suitable habitat, 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 2.4.3.4). 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 2.4.6. With these measures, potentially significant impacts to Hermes copper butterfly habitat would be mitigated to **less than significant**.

#### *Permanent Direct Impacts*

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, 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 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-graded 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 acres of habitat that could support future Hermes copper butterfly populations (**Impact-BI-3**) (discussed further in Section 2.4.3.4). **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 2.4.6, 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 (see Appendix 2.4-1). With these measures, potentially significant impacts to Hermes copper butterfly habitat would be mitigated to **less than significant**.

*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 measure 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**).

**<u>Guideline 1B:</u> Would the project impact an on-site population of a County List A or B plant species, or a County Group I 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 site 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.**

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

*Temporary Direct Impacts*

Short-term, construction-related, or temporary direct impacts to County List A and B plant species at the edge of the construction and the Otay Ranch RMP Preserve interface would primarily result from construction activities. Clearing, trampling, or grading of special-status plants outside designated construction zones could occur in the absence of avoidance and mitigation measures. Table 2.4-6, Summary of Direct Impacts to Special-Status Plant Species, includes each species' status, estimates of the number of individuals within the Project Area, and an assessment of permanent direct impacts based on the number of individual plants located within the impact footprint. Potential temporary direct impacts to County List A and B plant species on site would be **significant**, absent mitigation (**Impact BI-4**). These short-term direct impacts would be mitigated to a level below 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 2.4.6. Therefore, temporary direct impacts to County List A and B species would be **less than significant**.

*Permanent Direct Impacts*

The significance of potential permanent direct impacts to sensitive plant species is determined by applying the Otay Ranch RMP, MSCP Plan, MSCP County of San Diego Subarea Plan, MSCP City of San Diego Subarea Plan, and MSCP Chula Vista Subarea Plan, described in Section 2.4.2 (see Table 2.4-7, Summary of Impacts to Sensitive Plants and Required Mitigation – List A and B, Non-Covered, and Narrow Endemics). Direct impacts to sensitive plant species adequately covered in the MSCP Subarea Plans are mitigated by following the provisions set out in the Otay Ranch RMP, the MSCP Plan, the MSCP County Subarea Plan, MSCP City of San Diego Subarea Plan, City of San Diego Land Development Code Biology Guidelines (City of San Diego 2012), and MSCP Chula Vista Subarea Plan.

The Otay Ranch 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 Otay Ranch RMP development. The goal of the Otay Ranch RMP is to retain these population percentages within the Otay Ranch RMP Preserve as Otay Ranch is developed and landowners convey property to the Otay Ranch RMP Preserve. 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 the BTR (Appendix 2.4-1) provides the RMP goals and MSCP Plan 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 as a condition of the RMP, an open space easement will be placed over non-graded LDA. 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) are considered significant absent mitigation (**Impact BI-5**). Additional mitigation per the BMO analysis (see Appendix A of the Biological Resources Technical Report) 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. Therefore, permanent direct impacts to County List A and B species would be **less than significant**.

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 2.4-7. By participating in the MSCP Plan, 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 plant species (as shown in Table 2.4-7) to **less than significant**. The significance determination for impacts to County List A and B non-Covered Species and narrow endemics is provided in Table 2.4-7.

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 (the "easternmost reach") of the Rolling Hills Ranch project, which is a Covered Project with hardlines in the MSCP City of Chula Vista Subarea Plan area. As described in Section 2.4.3.1, 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. As part of the letter agreement between USFWS, CDFW, City of Chula Vista, and Pacific Bay Homes dated July 19, 2001 (see Appendix A to the BTR), no further mitigation for narrow endemic species or other Covered Species, including Otay tarplant, are required within this easement. 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 MSCP City of San Diego Subarea Plan (City of San Diego 1997), impacts to eight individuals within the City of San Diego Cornerstone Lands would be considered **less than significant**. The four individuals mapped within the proposed Proctor Valley Road South improvements area within City of Chula Vista lands are subject to restrictions described in Section 5.2.3 of the MSCP City of Chula Vista Subarea Plan and the Facilities Siting Criteria. Since this is a covered species, no mitigation is required. Therefore, impacts to San Diego barrel cactus within the City of Chula Vista would be considered **less than significant**.

San Diego barrel cactus and San Diego goldenstar are also a 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 (see Section 2.4.2.3), mitigation will be provided for impacts to this 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 2:1and 3:1 mitigation to impact ratio (72:36 individuals for San Diego barrel cactus and 51:17 for San Diego goldenstar) (M-BI-11).

### Special-Status Wildlife Species (County Group I or State SSC)

#### *Temporary Direct Impacts*

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 result in short-term direct impacts that would be significant (**Impact BI-7**). 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**), restoration of temporary vegetation impacts (**M-BI-12**), and minimization of noise impacts (**M-BI-18**). Therefore, temporary direct impacts to County Group I or state SSC species would be **less than significant**.

#### *Permanent Direct Impacts*

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 2.4.1 (**Impact BI-2**).

MSCP Covered Species observed within the Project Area or with a high to moderate potential to occur include 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 2.4.3.1. Impacts to golden eagle are described below.

There are sensitive species either observed in the Project Area or with a high to moderate potential to occur in the Project Area that are not MSCP Covered Species but are addressed by the Otay Ranch RMP. These species have a relatively low level of sensitivity, and none of these species are state or federally listed. These species include 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, MSCP Plan, and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to Covered Species to bring the impact 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, 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 provides suitable habitat for these species in a configuration that preserves genetic exchange and species viability, and contribution of additional habitat 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 provided by the Otay Ranch RMP. Impacts to Quino checkerspot butterfly and Hermes copper butterfly are described under Guideline 4.1.A in Section 2.4.3.1. For those species that are Covered Species under the MSCP, conservation provided through the Otay Ranch RMP, the MSCP Plan, and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to suitable habitat and reduce those impacts to **less than significant**.

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 will be placed, as needed, around the perimeter of the Otay Ranch RMP Preserve through **M-BI-5** (signage and fencing); and to ensure that no burrowing owls have migrated into the Development Footprint through **M-BI-13** (burrowing owl preconstruction survey).

### *Permanent Direct Impacts to Birds under the MBTA*

As described in Section 2.4.1, if any active nests or the young of nesting special-status bird species are impacted through grading, these impacts would be significant, absent mitigation, based on the MBTA (**Impact BI-8**). Clearing of vegetation should 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** (nesting bird survey). 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 special-status species would be less than significant. Therefore, impacts to birds under the MBTA would be **less than significant**.

**Guideline 1C: Would the project impact the local long-term survival of a County List C or D plant species or a County Group II animal species?**

### 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 2.4-8, Summary of Impacts to Sensitive Plants – List C and D. 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**). The RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation. Therefore, impacts to County List C and D species would be **less than significant**.

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

As summarized in Section 2.4.1, 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 2.4-19 through 2.4-19cc 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, which are state SSC: 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 either to their regional widespread presence or the impact's 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. Therefore, impacts to County Group 2 species would be **less than significant**.

**Guideline 1D: Would the project 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.**

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 within the Project Area. Therefore, impacts to arroyo toad would be **less than significant**.

**Guideline 1E: Would the project impact golden eagle habitat? Any alteration of habitat within 4,000 feet of an active golden eagle nest would be considered significant in the absence of a biologically-based determination that the habitat alteration would not have a substantially adverse effect on the long-term survival of the identified pair of golden eagles.**

Guideline 1E is derived from and is consistent with the MSCP Plan and the County's Section 10 Permit (MSCP 1998, Table 3-5; Section 10 Permit, p. 2). Section 2.4.1 contains an analysis of impacts to suitable golden eagle foraging habitat within the Project Area (**Impact BI-6**). The key determination when assessing the Proposed Project's impacts to golden eagle is whether the Proposed Project is consistent with the impact and conservation assumptions of the MSCP Plan, the MSCP County Subarea Plan, and the Otay Ranch RMP, and it 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 2.4-9, 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 BI-6**).

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 into the Otay Ranch RMP, the MSCP Plan, and the MSCP County Subarea Plan and Implementing Agreement. Therefore, the Proposed Project is consistent with the Preserve assumptions of the MSCP Plan, the MSCP County of San Diego Subarea Plan, and the Otay Ranch RMP. The Proposed Project also requires no MSCP boundary adjustment to the Otay Ranch RMP or MSCP Preserve. In addition, the Proposed Project would convey 390.7 acres of on-site golden eagle foraging habitat within the Project Area and 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**).

Table 3-5 of the MSCP Plan (MSCP 1998) shows anticipated impacts of the entire MSCP Plan, including impacts associated with development of Village 14 and Planning Areas 16/19. For golden eagle, the Project Area is located in what Table 3-5 refers to as the "Rancho San Diego" nesting territory (which biologists now refer to as the "San Miguel Mountain" nesting territory). Table 3-5 makes the following statement regarding the MSCP Plan's impacts to 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 in the MSCP County Subarea Plan Implementing Agreement, and would have no impacts to foraging beyond those assumed in Table 3-5, 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). Consequently, the actual amount of habitat loss is less than what Table 3-5 assumed.

In light of the 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 of the BTR) indicate 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 1992b). Therefore, the Proposed Project's impacts on golden eagle individuals and nests would be **less than significant**.

**Guideline 1F: Would the project 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 site 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.**

Foraging habitat for raptors is present throughout portions of the Project Area. The Proposed Project would result in impacts to more than 5% of the raptor foraging habitat, as shown in Table 2.4-10, 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 **significant (Impact BI-2)** absent mitigation. 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.

**Guideline 1G: Would the project 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.**

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 retain the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992a) and the BRCAs identified in the MSCP Plan. 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**.

**Guideline 1H: Would the project cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term? The 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.**

### Special-Status Plant Species

#### *Temporary Indirect Impacts*

Most of the indirect impacts to vegetation communities described in Section 2.4.1 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 would 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 BI-9**). Special-status plant species at the edge of the Otay Ranch RMP Preserve/development interface could be impacted by potential temporary indirect impacts, such as those previously listed (see descriptions in Section 2.4.1). Absent mitigation, these impacts 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 2.4.6 would mitigate these impacts to **less than significant**.

#### *Permanent Indirect Impacts*

Permanent indirect impacts could result from the proximity of the Development Footprint 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 BI-10**). Each of these potential indirect impacts is discussed in Section 2.4.1. Special-status plant species at the edge of the Otay Ranch RMP Preserve/Development Footprint could be impacted by permanent indirect impacts, such as those previously listed. Absent mitigation, these impacts 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 2.4.6, would mitigate these impacts to **less than significant**.

### Special-Status Wildlife Species

#### *Temporary Indirect Impacts*

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 BI-11**). 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 and other MBTA protected species (February 15 through August 31) or raptors (January 15 through July 31). **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), described in Section 2.4.6, would mitigate these impacts to **less than significant**.

*Permanent Indirect Impacts*

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 BI-12**). Absent mitigation, these impacts 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-18** (noise), **M-BI-19** (fire protection), and **M-BI-20** (lighting), described in Section 2.4.6, would mitigate these impacts to **less than significant**.

**Guideline 1I: Would the project impact occupied burrowing owl habitat?**

As described in Section 2.4.1, 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 2.4-10 through 2.4-10cc). 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 2.4-5).

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 2015). 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, a 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**.

**Guideline 1J: Would the project impact occupied coastal cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire?**

There are no cactus scrub patches within the Project Area to support nesting coastal cactus wren (*Campylorhynchus brunneicapillus*), 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 in the Project Area, there would be **no impacts** to occupied coastal cactus wren habitat.

**Guideline 1K: Would the project impact occupied Hermes copper habitat?**

In 2015 and 2017, Dudek 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 of the study area was determined to contain potential habitat and was surveyed in 2015 (Figure 2.4-7). Additional areas were surveyed in 2017 for suitable Hermes copper habitat within Planning Areas 16/19, as well as those areas outside of the previously defined Development Footprint, resulting in 18.0 acres mapped of potential habitat (Figure 2.4-7). 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; for this reason, 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). Impacts to suitable Hermes copper butterfly habitat are described under Guideline 1A and would be a **significant** impact.

**Guideline 1L: Would the project impact nesting success of the following sensitive bird species through grading, clearing, fire-fuel modification, and/or other noise-generating activities such as construction?**

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 2.4-10, and impacts to general vegetation communities are described in Table 2.4-11, Impacts to Vegetation Communities and Land Cover Types within the Village 14 and Planning Areas 16/19 Project Area. Impacts to the nesting success of tree- and ground-nesting raptors associated with the loss of suitable nesting habitat would be **significant** (**Impact BI-2).** The loss of suitable nesting habitat would be mitigated 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 BI-12**) are discussed in Section 2.4.3.1. Potential impacts to burrowing owls, should they be found during preconstruction surveys, are discussed in Section 2.4.3.1.

As stated in Section 2.4.1, data shows no golden eagle nesting activity since the Harris Fire in 2007, including data from WRI (2010) and USFWS (2014b). The historical known golden eagle nest locations and the artificial nest locations are situated more than 4,000 feet from any portion of the Development Footprint. Although there are golden eagles in the vicinity, including mostly sub-adults, there is no evidence that there is any active historical 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 viable breeding territory, which is consistent with the MSCP Plan, MSCP County Subarea Plan, and the Otay Ranch RMP.

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 Project Area; therefore, **no impact** to the nesting success of those species would result.

### *2.4.3.2 Guideline 4.2: Riparian Habitat or Sensitive Natural Community*

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's guidelines (County of San Diego 2010a) were used to evaluate direct, indirect, and cumulative impacts. Each general subject area is broken into more specific County guidelines, and lettered accordingly, to provide additional clarity on this complex resource topic.

A significant impact would result if:

***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 the CDFW or USFWS.***

Analysis

**Guideline 2A: Would project-related grading, clearing, construction, or other activities temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5, County of San Diego 2010, excluding those without a mitigation ratio) on or off the project site?**

## On-Site Impacts

### *Temporary Direct Impacts*

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 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 of 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 BI-13**). 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).

### *Permanent Direct Impacts*

The Proposed Project would cause the direct loss of 689.7 acres of sensitive vegetation communities (uplands and riparian) within Village 14 and Planning Areas 16/19 (Table 2.4-12, Impacts to Vegetation Communities and Land Cover Types within Off-Site Improvement Areas).

The Proposed Project would result in impacts to seven sensitive vegetation communities (Table 2.4-13, Summary of Proposed Project Impacts). 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 BI-14**).

Mitigation measures **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 2.4.6, 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 Otay Ranch RMP Preserve, 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**. In addition, the RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation.

## Off-Site Impacts

Off-site impacts to granitic chamise chaparral (including disturbed), southern mixed chaparral, coastal sage scrub (including disturbed), Diegan coastal sage scrub – *Baccharis* dominated (including disturbed), non-native grassland, mulefat scrub, coastal and valley freshwater marsh, southern willow scrub, disturbed cismontane alkali marsh, and unvegetated stream channel would total approximately 85.3 acres (53.2 acres of temporary impacts and 32.1 acres of permanent impacts), and would be significant absent mitigation (**Impacts BI-15** through **BI-20**, described below). Table 2.4-12 summarizes the impacts to these off-site areas based on the vegetation community and the location of the off-site impact.

### *City of San Diego Cornerstone Lands*

Portions of Proctor Valley Road South (including infrastructure facilities) would be located within the City of San Diego Cornerstone Lands and the City of San Diego MHPA. Absent mitigation, this impact would be **significant** (**Impact BI-15**). Mitigation requirements for permanent impacts are presented in Table 2.4-14, Mitigation Requirements for Permanent Impacts to City of San Diego Cornerstone Lands. These impacts would be mitigated by **M-BI-4**, which provides a biological open space easement over 72.4 acres of non-impacted portions of the Project Area. Mitigation measures **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 2.4.6, 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. Temporary impacts (22.6 acres) to 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**.

### *City of Chula Vista Off-Site Areas*

As shown in Table 2.4-12, direct impacts to lands in the City of Chula Vista would result from improvements to Proctor Valley Road (including infrastructure facilities). As described in Section 2.4.3.1, this portion of Proctor Valley Road is defined as the "easternmost reach" (from Neighborhood 9 in the Rolling Hills Ranch project), and is a Covered Project under the MSCP City of Chula Vista 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 in a Letter Agreement between USFWS, CDFW, the City of Chula Vista, and Pacific Bay Homes dated July 19, 2001 (see Appendix A to the BTR). As part of this Letter Agreement, no further mitigation for impacts to non-wetland is required; therefore, impacts to these communities are not considered significant. However, this EIR still analyzes impacts to jurisdictional aquatic resources (see County Guideline 4.2.B) and temporary impacts to sensitive habitat (2.3 acres) (**Impact BI-16**).

This off-site area is located outside the Otay Ranch boundary and is subject to City of Chula Vista Facilities Siting Criteria (City of Chula Vista 2003). The off-site impacts within the City of Chula Vista would not conflict with the goals or standards of the MSCP City of Chula Vista's Subarea Plan, since the impacts are for road improvements. However, compliance with the City of Chula Vista's Facilities Siting Criteria is required to ensure that the road improvements have been located in the least environmentally sensitive areas and that impacts to the MSCP Chula Vista Subarea Plan Preserve have been 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 2.4.6, 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. 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 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**.

### Off-Site Private Lands

As shown in Table 2.4-12, 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 of San Diego Subarea Plan. However, incidental direct impacts to sensitive vegetation resulting from construction of Proctor Valley Road would be **significant** (**Impact BI-17**). **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), and **M-BI-12** (restoration of temporary impacts), described in Section 2.4.6, would mitigate for this impact through construction-related measures to reduce impacts outside of the Development Footprint and

through 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**.

### *County of San Diego Road Easement*

As shown in Table 2.4-12, 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 would be to sensitive upland communities (coastal sage scrub and grassland). These off-site impacts are subject to the MSCP County of San Diego Subarea Plan, and would be associated with construction of Proctor Valley Road; therefore, they would not require mitigation for permanent impacts since Proctor Valley Road is a planned facility within the MSCP County of San Diego Subarea Plan. However, incidental direct impacts to sensitive vegetation resulting from construction of Proctor Valley Road would be **significant** (**Impact BI-18**). **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-3** (habitat conveyance and preservation), and **M-BI-12** (restoration of temporary impacts), described in Section 2.4.6, would mitigate for this impact through 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**.

### *Off-Site CDFW-Owned Lands*

As shown in Table 2.4-12, 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 BI-19**). These CDFW-owned lands are a part of the Otay Ranch GDP/SRP, MSCP Plan, MSCP County Subarea Plan, and Otay Ranch RMP. The majority of impacts, 42.0 acres, would be to sensitive upland communities, including Diegan coastal sage scrub, granitic chamise chaparral, southern mixed chaparral, and non-native grassland. There would be minor impacts, 0.1 acres, 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 2.4.6, would mitigate for this impact through 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 from the conveyance requirements (City of Chula Vista and County of San Diego 1996), 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, there would be three connector roads within Planning

Area 16 that are within land owned by CDFW. The underlying Otay Ranch GDP/SRP designations for these areas are development and LDA. Impacts stemming from the 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 the permanent impacts would be mitigated through conveyance of land 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 **less than significant**.

**Guideline 2B: Would any of the following occur to or within jurisdictional wetlands and/or riparian habitats as defined by U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG), and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance?**

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

### Temporary Direct Impacts

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 BI-20**). 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, would ensure restoration of 0.12 acres of wetlands/riparian habitat and unvegetated stream channel, and would require permits from the appropriate federal and state agencies to impact jurisdictional resources. The above mitigation measures are described in Section 2.4.6.

### Permanent Direct Impacts

The Proposed Project would permanently impact 1.43 acres of ephemeral non-wetland waters/ streambed and 1.45 acres of wetlands/riparian habitat within Village 14 and Planning Areas 16/19 (**Impact BI-21**) (Figures 2.4.19 through 2.4-19cc and Table 2.4-15, Impacts to ACOE/ RWQCB/CDFW Jurisdictional Aquatic Resources within Village 14 and Planning Areas 16/19). As shown in Table 2.4-16, Impacts to Off-Site ACOE/RWQCB/CDFW Jurisdictional Aquatic Resources by Jurisdiction, of the 2.87 acres of permanent impacts, 0.28 acres of impacts would be to off-site jurisdictional aquatic resources, mostly due to proposed Proctor Valley Road improvements. Approximately 0.08 acres of this permanent impact would occur in the City of San Diego 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. Roadway impacts associated with Planning Areas 16/19 include Proctor Valley Road North and Proctor Valley Road Central, which would impact 0.01 acres of wetland/riparian habitat within CDFW-owned lands. Permanent impacts to 2.87 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 2.4.6, 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. This impact would be mitigated to **less than significant**.

### Temporary Indirect Impacts

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 BI-22**). 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 2.4.6, would mitigate these impacts to **less than significant**. These measures would mitigate for these impacts through construction-related measures to reduce impacts outside of the Development Footprint, SWPPP implementation, erosion and runoff control, and chemical spill prevention.

### Permanent Indirect Impacts

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, introduction of chemical pollutants, altered hydrology, introduction of non-native invasive species, increased human activity,

alteration of the natural fire regime, and shading (**Impact BI-23**). 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 2.4.6, would mitigate for these impacts and reduce them to **less than significant**. These measures would mitigate for this impact through construction-related measures to reduce impacts outside of the Development Footprint, SWPPP implementation, controls to reduce erosion and runoff, minimization of release of exotic plants and animals, and prevention of chemical spills.

**Guideline 2C: Would the project 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?**

The Proposed Project would not involve any groundwater extractions, and, therefore, would not draw-down the groundwater table to the detriment of groundwater-dependent habitat. Therefore, there would be **no impact** to groundwater.

**Guideline 2D: Would the project cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term? The 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.**

### Temporary Impacts

Potential short-term or temporary indirect impacts to sensitive vegetation communities in the Project Area (including off-site areas) 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 BI-24**). 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 Section 2.4.6, would mitigate these impacts to **less than significant**. The 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, chemical spill prevention measures, and federal and state agency permits.

### Permanent Impacts

Long-term or permanent indirect impacts could result from the proximity of the Proposed Project (including off-site areas) to sensitive vegetation communities after construction (e.g., maintenance of roads, residential units, commercial space, school, parks, and trails) (**Impact BI-25**). Permanent indirect impacts that could affect special-status vegetation communities include generation of fugitive dust, introduction of chemical pollutants, altered hydrology, introduction of 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 2.4.6, 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, minimized release of exotic plants and animals, implementation of a Fire Protection Plan, and prevention of chemical spills.

**Guideline 2E: 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 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, such as the Otay Ranch RMP. Since the Proposed Project is consistent with the Otay Ranch RMP, it is not subject to the RPO and the required wetland buffers. Therefore, **no impacts** would result.

### *2.4.3.3 Guideline 4.3: Jurisdictional Wetlands and Waterways*

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) was used to evaluate the direct, indirect, and cumulative impact analysis.

A significant impact would result if:

***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.***

Analysis (Guideline 3)

Impacts to Jurisdictional Aquatic Resources within the Project Area

As described in Section 2.4.3.2, 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 BI-20** through **BI-23**). Direct impacts would occur both within the Development Footprint and in off-site areas (Table 2.4-17, Improvements to Proctor Valley Road – MSCP County Subarea Plan Consistency Analysis, and Table 2.4-18, Summary of Siting Criteria for City of San Diego Off-Site Portion of Proctor Valley Road and Associated Utilities). **Impacts BI-20** through **BI-23** 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).

### *2.4.3.4 Guideline 4.4: Wildlife Movement and Nursery Sites*

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) was used to evaluate the direct, indirect, and cumulative impact analysis. Each general subject area is broken into more specific County guidelines, and lettered accordingly, to provide additional clarity on this complex resource topic.

A significant impact would result if:

***The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.***

## Analysis

**Guideline 4A: Would the project impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction?**

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 (Figure 2.4-16). Another wildlife crossing would be provided where L4 crosses an internal road. 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. Each crossing has been designed to create an openness ratio (calculated as W x H/L of the crossing in meters) of greater than 0.6, which is the minimum "openness" for crossings to facilitate the movement of mule deer. The openness ratio provides a quantitative analysis to be used to indicate the success of a wildlife crossing. Providing a movement corridor suitable for mule deer ensures that other large mammals would use the corridor. The openness ratio ensures that the crossing will facilitate movement of mule deer and then movement of large mammals. 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.

Short-term, construction-related, or 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 BI-26**). 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 restoration of temporarily impacted areas.

The Proposed Project would maintain and implement the originally designated hardline Preserve as identified in the Otay Ranch RMP and MSCP County Subarea Plan Implementing Agreement, and would, therefore, retain the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992a) and the BRCAs identified in the MSCP Plan. In addition, where necessary and as required by Policy 4.1 of the Otay Ranch RMP (City of Chula Vista and County of San Diego 1996), wildlife crossings have been designed and would be constructed along Proctor Valley Road. 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**.

**<u>Guideline 4B:</u> Would the project 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.**

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 1992a). As explained in previous sections, 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 (See Guideline 4A). Four wildlife crossings would be provided as part of the Proposed Project (Figure 2.4-16). Three crossings were designed to

facilitate wildlife movement under Proctor Valley Road, and one crossing is planned for an internal road to a residential area (R12) which crosses over L4 (see Guideline 4A).

**Guideline 4C: Would the project 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.**

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 1992a). 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 1992a) and the BRCAs identified in the Final MSCP (MSCP 1998). Wildlife currently has the ability to use the entire Project Area, there are identified corridors within the Project Area (Figure 2.4-16). 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 Guideline 4A). 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**.

**Guideline 4D: Would the project 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?**

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 impacts on habitat linkages and movement corridors. However, wildlife movement through these corridors may be indirectly impacted by adjacent proposed development (**Impacts BI-27** and **BI-28**).

*Temporary Indirect Impacts*

Potential short-term indirect impacts to habitat connectivity and wildlife corridors could result from increased human activity, including lighting and noise, during construction, and project occupancy (**Impact BI-27**). Absent mitigation, these potential short-term indirect impacts 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 these impacts to **less than significant** through construction-related measures to reduce impacts outside of the Development Footprint, to direct lighting away from the Otay Ranch RMP Preserve, and to minimize potential noise impacts. These mitigation measures are fully described in Section 2.4.6.

*Permanent Indirect Impacts*

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 BI-28**). 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 2.4.6, would mitigate these impacts to **less than significant**. In addition, RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation.

**Guideline 4E: Would the project 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.**

As stated in Section 2.4.1, the Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992a) identified a number of local and regional wildlife corridors within the Proctor Valley Parcel (Figure 2.4-16). 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 2.4-2). 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 core has been pulled

back to avoid the Proctor Valley drainage, and a 1-acre strip of development of Conserved Open Space would further buffer the corridor from development. The portion of the mapped corridor which bends towards the east of the Project Area within Planning Area 16 is partially within the Development Footprint (Figure 2.4-16). Since the Project Area is essentially surrounded by open space, wildlife would have 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 the BLM land in the eastern portion. The Proposed Project Otay Ranch RMP 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, and would therefore retain the functions and values of the corridors identified in the study (Ogden 1992a) 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 2.4.1). With these revisions, the Proctor Valley regional wildlife corridor (R1) 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 2.4-16, the corridor ranges from approximately 1,600 feet wide to almost 2,600 feet wide where it passes through the Project Area. The Ogden corridor study states that the l4 corridor is 500 to 700 feet wide (Ogden 1992a). 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 R12 (see Guideline 4A). Therefore, with compliance to the Otay Ranch RMP and MSCP Plan, impacts to the width of wildlife corridors would be **less than significant**.

**<u>Guideline 4F:</u> Would the project 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.**

The Proposed Project would maintain and implement the originally designated MSCP hardline Preserve as identified in the Otay Ranch RMP and MCSP County of San Diego Subarea Plan Implementing Agreement, and would therefore retain the functions and values of the corridors

identified in wildlife corridor study (Ogden 1992a) 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 Preserve design and wildlife habitat connectivity issues (see Section 2.4.1). Therefore, with compliance to the Otay Ranch RMP, the Proposed Project's impacts on visual continuity would be **less than significant**.

#### *2.4.3.5 Guideline 4.5: Local Policies, Ordinances, and Adopted Plans*

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010a) was used to evaluate the direct, indirect, and cumulative impact analysis. Each general subject area is broken into more specific County guidelines, and lettered accordingly, to provide additional clarity on this complex resource topic.

A significant impact would result if:

***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.***

Analysis

Guidelines 4.5A, 4.5C, 4.5F, and 4.5H of the County's Biology Guidelines are not applicable to the Proposed Project. Specifically, the Project Area is located within the MSCP County of San Diego Subarea Plan area, and, therefore, Guideline 4.5A does not apply. 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, 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, County Guideline 4.5C does not apply. In addition, the Project Area, although located within the MSCP County of San Diego Subarea Plan area, is not subject to the County of San Diego's RPO or BMO. Instead, the Otay Ranch RMP guides preservation, enhancement, and management of sensitive biological resources within Otay Ranch (including the Project Area). Thus, guidelines that address the RPO and BMO (County Guidelines 4.5F and 4.5H) are not applicable.

**Guideline 4.5B: 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.**

The Proposed Project is in conformance with the regional and subregional planning documents. The Village 14 and Planning Areas 16/19 Otay Ranch RMP Preserve is consistent with the Otay Ranch GDP/SRP in that the Proposed Project would maintain and implement the Otay Ranch RMP Preserve boundary such 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 or resource or wildlife agencies as critical to future habitat Preserves, including either the MSCP County Subarea Plan Preserve or the Otay Ranch RMP Preserve. The realignment of and improvements to Proctor Valley Road and construction of access roads within Planning Areas 16/19 would conform with the goals and requirements of the applicable planning documents, as discussed further under County Guideline 4.5.E, below.

**Guideline 4.5D: Would the project minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the Natural Communities Conservation Planning Process (NCCP) Guidelines?**

The Proposed Project is located within Otay Ranch and, therefore, is not subject to compliance with Section 4.3 of the NCCP planning process guidelines. Instead, as discussed further under Guideline 4.5E, 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 is required for Proposed Project impacts, and it is anticipated that this off-site conveyance would preserve other areas of coastal sage scrub habitat.

**Guideline 4.5E: Would the project 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?**

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

### MSCP Plan and MSCP County Subarea Plan

The Proposed Project is located within the boundaries of the MSCP Plan area. 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 and/or management authorization 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 Plan and MSCP County Subarea Plan, Dudek reviewed the sections in the Otay Ranch RMP, MSCP County Subarea Plan, and Implementing Agreement as they related to Otay Ranch and compared the areas of designated Preserve within the Project Area with the Preserve acreage of the Proposed Project. Dudek determined that the designated areas of Otay Ranch RMP Preserve within the Project Area are the same as those identified in the Otay Ranch GDP/SRP and incorporated in the Otay Ranch RMP, MSCP Plan, and MSCP County Subarea Plan and Implementing Agreement. Specifically, the Otay Ranch RMP Preserve within Village 14 is 270.2 acres, and the Otay Ranch RMP Preserve within Planning Areas 16/19 totals 156.5 acres.

These acreage comparisons show that the Proposed Project is consistent with the Preserve assumptions of the MSCP Plan, MSCP County Subarea Plan, and Otay Ranch RMP. As further evidence of the Proposed Project's consistency with the MSCP Plan and 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 Preserve boundary that is provided in the MSCP Plan and 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 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 area.

### County of San Diego Biological Mitigation Ordinance

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

The County has confirmed that the Proposed Project is 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 of the Biological Resources Technical Report.

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).[11]

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

[11] 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.

hereto supports the findings that development of PV1, PV2, and PV3 will not jeopardize the assembly of the preserve system within the County Subarea Plan for the following reasons: (1) the 11,375-acre Otay Ranch RMP Preserve Footprint will not be changed; (2) the Preserve Edge Plan will provide a buffer between the Otay Ranch RMP Preserve and development in PV1, PV2, and PV3; (3) 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 (4) an additional 20.1 acres of Conserved Open Space will be preserved on site and could be added to the Otay Ranch RMP Preserve.

Table 1 of the BMO 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 of the Biological Resources Technical Report). 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 as well as 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.

Impacts to sensitive wildlife will be mitigated through habitat conveyance; however, the Proposed Project will also implement specific mitigation measures to address impacts coastal California gnatcatcher (see **Impact BI-2**). Impacts to sensitive plant species will be mitigated through habitat conveyance; however, in accordance with the BMO, the Proposed Project will implement additional mitigation to address impacts to San Diego goldenstar (*Bloomeria clevelandii*), variegated dudleya (*Dudleya variegata*), San Diego barrel cactus (*Ferocactus viridescens*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), and San Diego marsh-elder (*Iva hayesiana*). Existing populations of San Diego golden star, variegated dudleya and San Diego barrel cactus will 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 these populations. In addition to translocation of existing populations, additional plants will be installed at the receptor site to achieve a 2:1 population within the Otay Ranch RMP Preserve or Conserved Open Space for barrel cactus and a 3:1 population for San Diego goldenstar and variegated dudleya. Per M-BI-11, a Biological Resource Salvage and Restoration Plan will be prepared which shall, 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 includes 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 the implementation of the above mitigation, the proposed development within PV1, PV2, and PV3 is in compliance with the requirements and measures set forth in the BMO.

### MSCP County Subarea Plan – Roads

Within the MSCP County Subarea Plan area, a project that results in take of Covered Species from construction of new or modified 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 (County of San Diego 1997).

#### *New and Existing Roads within the Lake Hodges and South County 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 modified existing circulation element 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 a 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 2.4-17 is based on bullet points A through F outlined in Section 1.9.3.2 of the MSCP County Subarea Plan, along with the above-noted requirements.

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 2.4.1).

### 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 1993a). 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 Otay Ranch RMP 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 for every 1 acre of development (City of Chula Vista and County of San Diego 1996). 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 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 MSCP County Subarea Plan. A project's compliance with the Otay Ranch RMP constitutes its compliance with the MSCP County Subarea Plan. These Otay Ranch RMP 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 653.9 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 RMP Preserve Conveyance Obligation ratio of 1.188 would be 653.9[12] acres. Therefore, developable land within the Proposed Project is subject to a conveyance obligation of 776.8 acres (653.9 acres × 1.188 = 776.8 acres).

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

This obligation would be partially satisfied through on-site conveyance of the Otay Ranch RMP Preserve, which would total 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 Otay Ranch RMP Preserve land occur within the Project Area boundaries, 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 Conserved Open Space have been identified as additional land to be used as mitigation for Proposed Project impacts (**M-BI-4**). This acreage 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 the Central Village 14 Development Footprint and Proctor Valley Road. According to Policy 6.6 of the Otay Ranch RMP, infrastructure (i.e., roads) is an allowable use within the Otay Ranch RMP 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 1996).

The Otay Ranch RMP also established required preservation ratios for the entire Otay Ranch resources. Section 2.4.6 lists the additional mitigation ratios required to mitigate for impacts to jurisdictional resources. In combination with the greater Otay Ranch RMP Preserve, these measures would achieve these 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.

### MSCP City of San Diego 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 2.7 of the MSCP City of San Diego Subarea Plan (City of San Diego 1997)), the Proctor Valley Road improvements would require mitigation for impacts within the MHPA Preserve. As shown in Table 2.4-12, 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 11.1 acres would be permanent impacts that require mitigation (Table 2.4-14). 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 MSCP City of San Diego Subarea Plan and Land Development Code Biology Guidelines (City of San Diego 2012) (see Table 2.4-18).

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 Subarea Plan (see Table 2.4-18). These policies are listed below (City of San Diego 1997):

- All proposed utility lines (e.g., sewer, water, etc.) 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.

### MSCP City of Chula Vista Subarea Plan

A portion of the Proctor Valley Road improvements (1,200 feet) would be located within the MSCP City of Chula Vista Subarea Plan area and City of Chula Vista limits. The City of Chula Vista Subarea Plan includes specific provisions for projects subject to City of Chula Vista jurisdiction, as described previously. 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 MSCP City of Chula Vista Subarea Plan area. 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 in a Letter Agreement between USFWS, CDFW, the City of Chula Vista, and Pacific Bay Homes, dated July 19, 2001 (see Appendix A to the BTR). Through this Letter Agreement, impacts to certain resources, including non-wetland MSCP Covered Species, do not require further mitigation.

The off-site impact areas within the City of Chula Vista would not conflict with the goals or standards of the City of Chula Vista 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 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] 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] 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 and the Quino checkerspot butterfly 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] Subarea Plan. Impacts to Quino checkerspot butterfly 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] Subarea Plan.

### *Facility Siting Criteria (MSCP City of Chula Vista Subarea Plan)*

This section outlines the planned facilities associated with the Proposed Project and how they adhere to the Facilities Siting Criteria contained in the MSCP Chula Vista Subarea Plan (City of Chula Vista 2003). Proctor Valley Road is identified in the MSCP City of Chula Vista Subarea Plan as a "Planned Facility," and is located in an MSCP Chula Vista Subarea Plan 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 right-of-way) 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 MSCP Chula Vista Subarea Plan Preserve, and, therefore, is 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 the 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 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 mule fat scrub. The four-lane design would result in increased 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 2.4-19, Summary of Facilities Siting Criteria for City of Chula Vista Off-Site Portion of Proctor Valley Road and Associated Utilities, provides a summary of these facilities as they relate to the siting criteria for the Chula Vista Subarea Plan.

**Guideline 4.5F: For lands within the Multiple Species Conservation Program (MSCP), would the project minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO).**

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.

**Guideline 4.5G: 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.**

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-value habitat 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 improvement 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 2.4.1, 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 MSCP City of Chula Vista Subarea Plan, as described above. All of these documents anticipated habitat connectivity.

**Guideline 4.5I: Would the project avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics?**

Impacts to Otay tarplant (a narrow endemic species) are discussed under Guideline 4.1.A (Section 2.4.3.1) and Guideline 4.5.E (Section 2.4.3.5). Approximately 35 variegated dudleya individuals were recorded within the southern portion of the Village 14 Development Footprint.

Since variegated dudleya 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 MSCP Chula Vista Subarea Plan Preserve, a Biological Resource Salvage Plan would require additional plantings of this species to achieve a 2:1 mitigation ratio. Therefore, on-site impacts to this species would be **less than significant**.

**Guideline 4.5J: Would the project would reduce the likelihood of survival and recovery of listed species in the wild.**

Three listed species were observed within the Project Area: Otay tarplant, San Diego fairy shrimp, and coastal California gnatcatcher. Impacts to these species are discussed in relation to Guideline 4.1.A in Section 2.4.3.1. Although not observed in the Project Area, impacts to habitat for Quino checkerspot butterfly and Hermes copper butterfly are also discussed in Section 2.4.3.1.

**Guideline 4.5K: The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).**

Impacts to migratory birds (**Impact BI-8**) are discussed in Section 2.4.3.1.

**Guideline 4.5L: The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).**

As discussed in Section 2.4.1 and Section 2.4.3.1, and listed in Table 2.4-10, the Proposed Project would impact suitable foraging habitat for golden eagle (**Impact BI-6)**. This impact, however, was contemplated by the Otay Ranch RMP and MSCP Plan, and has, therefore, already been mitigated. **M-BI-3** (conveyance of habitat to the MSCP Chula Vista Subarea Plan Preserve) would ensure that the mitigation anticipated under the Otay Ranch RMP and MSCP Plan is implemented, and **M-BI-4** provides a biological open space easement over additional habitat. The Proposed Project would not result in the "take" of golden eagles, 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; therefore, impacts would be **less than significant**. 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 1992b).

### 2.4.4 Cumulative Impact Analysis

Implementation of the Proposed Project would contribute to the cumulative loss of biological resources within Otay Ranch, the City of Chula Vista Subarea, the City of San Diego Cornerstone Lands, and CDFW-owned parcels. Both the Otay Ranch RMP and the MSCP County Subarea Plan provide consideration for, and mitigation of, cumulative impacts to biological resources. Compliance

with the various MSCP plans, the Otay Ranch RMP conveyance of compensatory mitigation lands to the POM, and compensatory wetland mitigation required by state and federal agencies would ensure the long-term sustainability of MSCP Covered Species and their associated habitats.

### Candidate, Sensitive, or Special-Status Species

Implementation of the Proposed Project would contribute to the cumulative loss of biological resources within Otay Ranch and the MSCP County of San Diego Subarea Plan area. However, Proposed Project cumulative impacts to species covered under the MSCP Plan, 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 Plan. These would require specific and additional mitigation to render the Proposed Project's contribution to the cumulative impact "less than cumulatively considerable." Candidate, sensitive, and special-status species not already covered under the MSCP Plan are Quino checkerspot butterfly and Hermes copper butterfly.

#### 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 2.4-22, 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 the 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 the 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 DEIR 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 (County of San Diego 2015) requires the preparation of a Quino Management/Enhancement Plan.

Construction of the Proposed Project has the potential to result in direct impacts to Quino checkerspot butterfly. However, the required mitigation measures listed below would address the direct impacts of the Proposed Project to Quino checkerspot butterfly and would provide for Quino checkerspot butterfly habitat. Thus, the Proposed Project would result in less-than-significant impacts to Quino checkerspot butterfly**.**

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 potentially expand into. The Otay Ranch RMP Preserve within the Project Area allows for contiguity of suitable habitat and resource areas with adjacent MSCP and Otay Ranch RMP

Preserve lands (Figure 2.4-21). The majority of the on-site Otay Ranch RMP Preserve is composed of open coastal sage scrub that is also contiguous with off-site sage scrub habitats. There have been substantial numbers of Quino checkerspot butterflies documented south of the Project Area, east of the Otay Reservoir System, and also farther south toward the Otay Mesa area. The Proposed Project would preserve contiguous habitat connections to these locations and areas to the north on San Miguel Mountain, which 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, as described in Section 2.4.3.1, would contribute to the regional preservation of Quino checkerspot butterfly habitat (**M-BI-3**), as well as additional habitat conservation (**M-BI-4**).

These measures would reduce the Proposed Project's contribution to cumulative impacts on Quino checkerspot butterfly to **less than cumulatively considerable**, as that term is defined and used in CEQA Guidelines Section 15130.

### 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 and were reviewed for impacts to Hermes copper butterfly (Figure 2.4-22). 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 2.4.6 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 that 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 the mitigation measures, the Proposed Project would result in less-than-significant impacts to Hermes copper butterfly**.**

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 do not have impacts to Hermes copper butterfly habitat/host plants or individuals.

The Proposed Project in combination with other projects in the cumulative analysis study area could result in significant impacts to the Hermes copper butterfly habitat. This impact, if not mitigated, would constitute a cumulatively considerable contribution to cumulative impacts 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 MSCP Preserve lands (Figure 2.4-17). The Otay Ranch RMP Preserve contains host plants and suitable habitat for the species that is also contiguous with suitable habitats, and likely host plants, off site. Therefore, the Proposed Project's conveyance of suitable habitat and host plants, as described in Section 2.4.3.1, 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.

### Cumulative Analysis for Golden Eagle

As discussed previously, the Proposed Project is consistent with the MSCP Plan, MSCP County Subarea Plan, and Otay Ranch RMP as they relate to golden eagle. The Proposed Project would also comply 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 Plan'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 are provided in Appendix C to the BTR (Appendix 2.4-1).

#### *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, as well as 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 2.4.1, 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 of the BTR 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 from which the Preserve would be assembled and managed for its biological resources. Since adoption of the MSCP Plan, additional lands have been conserved that are located outside the MHPA, as it is mapped in the MSCP Plan (1998). As of October 2015, 110,767 acres of golden eagle habitat has been conserved within the MSCP Plan area (see Appendix C of the BTR (Appendix 2.4-1)).

*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. To meet the 53% goal, an additional 48,144 acres must be placed into the 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 are within the MSCP County Subarea Plan Area (see Appendix C of the BTR).

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 of the BTR).

With respect to the MSCP County Subarea Plan (County of San Diego 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 MSCP County

Subarea Plan's objective, approximately 91,397 acres of golden eagle foraging habitat must be brought into the Preserve system. The MSCP County Subarea Plan's Preserve assembled, 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 of the MHPA (18,304 acres), the MSCP County Subarea Plan is projected to exceed the 54% goal of 91,107 acres (see Appendix C of the BTR).

The MSCP County 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 MSCP County 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. 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 may be conveyed to the MSCP Preserve. 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 on golden eagle or golden eagle foraging/nesting habitat.

Further, if a participating Otay Ranch project, such as the Proposed Project, is consistent with the Otay Ranch RMP, the MSCP Plan, and the MSCP County Subarea Plan, its contribution to cumulative biological impacts is 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.

### Riparian Habitat or Sensitive Natural Community

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 (15.2 acres of public parks, 9.7-acre elementary school, 13.8 acres of major circulation, and the 2.3-acre public safety site), along with habitat restoration of temporarily impacted areas. This conveyance program, coupled with the 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 would

mitigate cumulative biological impacts to riparian habitats and other sensitive natural communities to **less than cumulatively considerable**.

### Jurisdictional Wetlands and Waterways

The loss of jurisdictional wetlands and waterways 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, along with habitat restoration of temporarily impacted areas. This conveyance program, coupled obtaining the necessary resource agencies permits for impacts to jurisdictional resources, and complying with those permit requirements, which may include additional mitigation and the restoration of temporary impacts, would adequately conserve a greater or equal amount of jurisdictional wetlands and waters within Otay Ranch. Implementation of these measures and consistency with the required planning documents would mitigate cumulative biological impacts to jurisdictional wetlands and waters to **less than cumulatively considerable**.

### Wildlife Movement and Nursery Sites

The Proposed Project is anticipated to have a less than cumulatively considerable impact on wildlife corridors and habitat linkages. As described throughout this section, the Otay Ranch RMP Preserve within the Project Area functions as part of a large habitat block. The Otay Ranch RMP Preserve maintains and implements the originally designated RMP Preserve. Therefore, the functions and values of the corridors identified in Baldwin Otay Ranch Wildlife Corridors Studies (Ogden 1992a) and the BRCAs identified in the MSCP Plan are retained. Additionally, in conformance with the Otay Ranch GDP/SRP and Otay Ranch RMP, a wildlife crossing would be provided under Proctor Valley Road 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.

### Local Policies, Ordinances, and Adopted Plans

The Proposed Project would be consistent with the applicable planning documents, and **no cumulative impacts** would result under this guideline.

## 2.4.5 Significance of Impacts Prior to Mitigation

Based on the analysis above, the Proposed Project would have the following **potentially significant impacts** prior to mitigation.

**Impact BI-1:** Permanent Direct Impacts to potential Quino Checkerspot Butterfly Suitable Habitat

The Proposed Project would result in the loss of 793.7 acre of Quino checkerspot butterfly potential habitat. Such impacts would be potentially significant.

**Impact BI-2:** Permanent Direct Impacts to Habitat for Special-Status 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. These species include the following: red diamond rattlesnake, western spadefoot, Cooper's hawk, southern California rufous-crowned sparrow, grasshopper sparrow, burrowing owl, red-shouldered hawk, turkey vulture, northern harrier, California horned lark, loggerhead shrike, coastal California gnatcatcher, western bluebird, common barn-owl, monarch, San Diego black-tailed jackrabbit, mule deer, cougar, American badger, San Diegan tiger whiptail, rosy boa, long-eared owl, white-tailed kite, Blainville's horned lizard, Bell's sage sparrow, ferruginous hawk, pallid bat, western mastiff bat, western red bat, Yuma myotis, San Diego desert woodrat, big free-tailed bat, orangethroat whiptail, San Diego banded gecko, and Coronado skink (see Table 2.4-10).

**Impact BI-3**: Permanent Direct Impacts to Hermes Copper Butterfly Suitable Habitat

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 at some time in the future. The Proposed Project would result in impacts to 18 acres of habitat that could support future Hermes copper butterfly populations.

**Impact BI-4**: Temporary Direct Impacts to Special-Status Plant Species

The Proposed Project would have potentially 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 non-impacted areas interface (i.e., Otay Ranch RMP Preserve, Conserved Open Space, and non-graded LDA) (see Table 2.4-6).

**Impact BI-5**: Permanent Direct Impacts to Special-Status Plant Species

The Proposed Project would have potentially significant permanent direct off-site impacts to , San Diego marsh elder (a non-Covered Species within the cities of San Diego and Chula Vista) (Table 2.4-7). Additional mitigation per

the BMO analysis is required for San Diego goldenstar, barrel cactus, variegated dudleya, and Robinson's peppergrass (Table 2.4-7).

**Impact BI-6:** Permanent Direct Impacts to Golden Eagle

The Proposed Project would result in a potentially significant impact to 779.8 acres of suitable golden eagle foraging habitat.

**Impact BI-7**: Temporary Direct Impacts to Habitat for Special-Status Wildlife Species

The Proposed Project would result in potentially significant temporary direct impacts to habitat for special-status wildlife species (County Group 1 or state SSC animals), including individual amphibians, reptiles, and small mammals, from construction-related activities.

**Impact BI-8**: Permanent Direct Impacts to Birds under the MBTA

The Proposed Project would result in a potentially significant permanent direct impact if any active nests or the young of nesting special-status bird species are impacted.

**Impact BI-9**: Temporary Indirect Impacts to Special-Status Plant Species

The Proposed Project would have a potentially significant temporary indirect impact to special-status plant species in the Project Area from construction activities, and would 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 BI-10**: Permanent Indirect Impacts to Special-Status Plant Species

The Proposed Project would have a potentially significant permanent indirect impact 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 BI-11:** Temporary Indirect Impacts to Special-Status Wildlife Species

The Proposed Project would have potentially significant, temporary indirect impacts to avian foraging and wildlife access to foraging, nesting, and/or water resources.

**Impact BI-12**: Permanent Indirect Impacts to Special-Status Wildlife Species

The Proposed Project would have potentially significant, permanent indirect impacts to special-status wildlife species, including generation of fugitive dust; off-road-vehicle use; introduction of non-native, invasive plant and animal species; habitat fragmentation; increased human activity; alteration of the natural fire regime; and altered hydrology.

**Impact BI-13**: Temporary Direct Impacts to Riparian Habitat or Sensitive Vegetation Communities within the Project Area (including off-site impacts)

The Proposed Project would have potentially significant, temporary direct impacts to vegetation communities from construction activities, including grading that would be restored following completion of the Proposed Project. Temporary impacts total 67.1 acres.

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

The Proposed Project would have a potentially significant permanent, direct impact to 689.7 acres of vegetation communities within Village 14 and Planning Areas 16/19.

**Impact BI-15**: Off-Site Permanent and Temporary Direct Impacts to Sensitive Vegetation Communities: City of San Diego MSCP Cornerstone Lands

The Proposed Project would have potentially significant temporary and permanent direct impacts to lands in the MSCP City of San Diego Cornerstone Lands as a result of the improvements to Proctor Valley Road (11.1 acre of permanent impact and 21.1 acres of temporary impacts).

**Impact BI-16**: Off-Site Permanent and Temporary Direct Impacts to Sensitive Vegetation Communities: Lands within City of Chula Vista

The Proposed Project would have potentially significant temporary and permanent, direct impacts to lands in the City of Chula Vista as a result of the improvements to Proctor Valley Road (0.1 acre of permanent impacts and 2.3 acres of temporary impacts).

**Impact BI-17**: Off-Site Permanent and Temporary Direct Impacts to Sensitive Vegetation Communities: Off-Site Private Lands.

The Proposed Project would have potentially significant temporary and permanent, direct impacts to lands in off-site private lands as a result of the

improvements to Proctor Valley Road (0.2 acre of permanent impacts and 0.6 acres of temporary impacts).

**Impact BI-18**: Off-Site Permanent and Temporary Direct Impacts to Sensitive Vegetation Communities: County of San Diego Road Easement

The Proposed Project would have potentially significant temporary and permanent direct impacts to County roads as a result of the improvements to Proctor Valley Road North, less than 0.1 acres would be to sensitive upland communities (coastal sage scrub and grassland).

**Impact BI-19**: Off-Site Permanent and Temporary Direct Impacts to Sensitive Vegetation Communities: Off-Site CDFW-Owned Lands

The Proposed Project would have potentially significant direct impacts to sensitive vegetation within CDFW-owned lands as a result of road grading (6.7 acres temporary and 9.1 acres permanent).

**Impact BI-20**: Temporary Direct Impacts to Jurisdictional Aquatic Resources within the Project Area (including off site)

The Proposed Project would have potentially significant temporary direct impacts to jurisdictional aquatic resources, primarily from construction activities (0.73 acres of wetlands/riparian habitat and 0.35 acres of non-wetland waters/streambed).

**Impact BI-21**: Permanent Direct Impacts to Jurisdictional Aquatic Resources within the Project Area (including off site)

The Proposed Project would permanently impact 1.43 acres of non-wetland waters/streambed and open water as well as 1.45 acres of wetlands/riparian habitat within the Project Area.

**Impact BI-22**: Temporary Indirect Impacts to Jurisdictional Aquatic Resources within the Project Area (including off site)

The Proposed Project would have potentially significant, temporary indirect impacts to jurisdictional resources in the Project Area from construction activities, including 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 BI-23**: Permanent Indirect Impacts to Jurisdictional Aquatic Resources within the Project Area (including off site)

The Proposed Project would have potentially significant, permanent indirect impacts that could affect jurisdictional resources, including generation of fugitive dust, introduction of chemical pollutants, altered hydrology, introduction of non-native invasive species, increased human activity, alteration of the natural fire regime, and shading.

**Impact BI-24**: Temporary Indirect Impacts to Sensitive Vegetation Communities within the Project Area (including off site)

The Proposed Project would have potentially significant, temporary indirect impacts to sensitive vegetation communities in the Project Area (including off-site areas) from construction activities, including 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 BI-25**: Permanent Indirect Impacts to Sensitive Vegetation Communities within the Project Area (including off site)

The Proposed Project would have potentially significant, permanent indirect impacts resulting from the proximity of the Proposed Project (including off-site areas) to sensitive vegetation communities after construction (e.g., maintenance of roads, residential units, commercial space, school, parks, and trails).

**Impact BI-26**: Temporary Direct Impacts to Habitat Connectivity and Wildlife Corridors

The Proposed Project would have potentially significant, temporary direct impacts to potential foraging and breeding habitat for species that use the Project Area (e.g., special-status birds), primarily resulting from construction activities.

**Impact BI-27**: Temporary Indirect Impacts to Habitat Connectivity and Wildlife Corridors

The Proposed Project would have potentially significant temporary indirect impacts to habitat connectivity and wildlife corridors resulting from increased human activity, lighting, and noise during construction and Proposed Project occupancy.

**Impact BI-28**: Permanent Indirect Impacts to Habitat Connectivity and Wildlife Corridors

The Proposed Project would have potentially significant permanent indirect impacts to habitat connectivity and wildlife corridors, including habitat fragmentation, human activity, lighting, and noise from the proposed urban development, recreational facilities, and human activity.

### 2.4.6 Mitigation

The following are mitigation measures for the Proposed Project:

**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 (653.9 acres × 1.188 = 776.8 acres) (**M-BI-3**). 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 (653.9 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, 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, an 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 Section 2.4.3.1 (Impacts BI-4, BI-5, BI-9, and BI-10) and the Biological Mitigation Ordinance (BMO) analysis provided in Appendix A of the Biological Resources Technical Report for the Proposed Project. 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 Director (or her/his designee). Mitigation shall be provided as follows:

| Species Scientific Name/ Common Name | Impacts | Mitigation Ratio | Mitigation Provided |
|---|---|---|---|
| San Diego Goldenstar (Bloomeria clevelandii) | 17 individuals | 3:1 | 51 individuals |
| *Dudleya variegata* Variegated dudleya | 35 individuals | 3:1 | 105 individuals |
| *Ferocactus viridescens* San Diego barrel cactus | 36 individuals | 2:1 | 70 individuals (2 individuals are preserved on site) |
| *Iva hayesiana* San Diego marsh-elder | 1,057 individuals | 1:1 | 1,057 individuals |
| *Lepidium virginicum* var. *robinsonii* Robinson's pepper-grass | 112 individuals | 2:1 | 218 individuals (6 individuals are preserved on site) |

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 & 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.

**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.

### 2.4.7 Conclusion

All potentially significant impacts would be mitigated to **less than significant** with incorporation of the mitigation measures listed in Section 2.4.6. A summary is provided below. A list of the Proposed Project's impacts on biological resources, the resources impacted, the mitigation proposed, and the level of significance after mitigation is implemented is presented in Table 2.4-20, Summary of Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Areas.

#### Sensitive Plant Species

**Impact BI-4:** 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 non-impacted areas interface (i.e. Otay Ranch RMP Preserve, Conserved Open Space, and non-graded LDA) will be reduced to less than significant through implementation of **M-BI-1** (biological monitoring) and **M-BI-2** (temporary construction fencing). These mitigation measures will prevent and document that construction will not cause additional impacts beyond the Development Footprint.

**Impact BI-5:** The significant long-term direct impacts to plant species described in Section 2.4.3.1 and Table 2.4-7 will 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** and **M-BI-2** will reduce impacts from occurring outside of the Development Footprint. **M-BI-3** will reduce impacts through on-site preservation of suitable habitat. Additionally, **M-BI-11** (biological resource salvage plan) requires preparation of a Resource Salvage Plan to mitigate for impacts to San Diego marsh elder; San Diego goldenstar; variegated dudleya, a narrow endemic species; barrel cactus; and Robinson's pepper-grass, which will reduce impacts to less than significant.

**Impact BI-9:** The significant short-term indirect impacts to special-status plant species listed under **Impact BI-10** will be reduced to less than significant through implementation of **M-BI-1** (biological monitoring during construction), **M-BI-2** (temporary construction fencing), **M-BI-14** (implementation of a SWPPP), **M-BI-15** (erosion and runoff control), and **M-BI-17** (prevention of chemical pollutants). These impacts will be reduced to less than significant because these measures will prevent and document that construction will not cause additional impacts beyond the Development Footprint, including erosion, siltation, and pollution risk, and the risk of chemical pollutants being released.

**Impact BI-10:** The significant long-term indirect impacts to special-status plant species listed under **Impact BI-11** will 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). Potential indirect impacts will be reduced to less than significant because of the following: human activity will be restricted to the Development Footprint; erosion, siltation, and pollution risk will be minimized; release of exotic plants and animals will be minimized; the risk of chemical pollutants being released will be minimized; and a Fire Protection Plan will be implemented.

Sensitive Wildlife Species

**Impact BI-1:** The Proposed Project has the potential to affect potential Quino checkerspot butterfly suitable habitat. Such impact 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 by 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).

**Impact BI-2:** As stated in Section 2.4.3.1, the Proposed Project would have direct impacts to habitat supporting several special-status wildlife species (**Impact BI-2**). Conservation provided through the Otay Ranch RMP, MSCP Plan, and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to MSCP covered sensitive species and reduce impacts to a less than significant through **M-BI-3** (habitat conveyance and preservation) and **M-BI-4** (biological open space easement). These affected species are 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. Several sensitive species 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 are 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 the avoidance, minimal impacts, or lack of use of the Project Area 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 will be required to ensure there are no direct impacts to burrowing owl (**M-BI-13**, burrowing owl preconstruction survey).

**Impact BI-3:** Although no Hermes copper butterfly were observed in the Project Area, there is the possibility that Hermes copper butterfly could use or occupy the Project Area at some time 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 BI-3**). **M-BI-3** (habitat conveyance and preservation), **M-BI-4** (biological open space easement), and **M-BI-5** (permanent fencing and signage) would mitigate for this impact through habitat preservation, including preservation of suitable habitat and temporary construction fencing to protect Preserve lands. Within the on-site conveyance acreage, 6.5 acres of suitable Hermes copper butterfly habitat will be preserved (**M-BI-3**), with an additional 1.8 acres within Conserved Open Space and 0.8 acres within non-graded LDA (**M-BI-4**).

**Impact BI-6:** 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 Plan and the Proposed Project is consistent with the MSCP Plan, County Subarea Plan, and Otay Ranch RMP. In addition, this analysis 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). It is estimated that when fully assembled, the MSCP Preserve would conserve potential golden eagle foraging/nesting habitat exceeding 139,000 acres. 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 (**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 Preserve.

**Impact BI-7:** The Proposed Project would result in potentially significant temporary direct impacts to habitat for special-status wildlife species (County Group 1 or state Species of Special Concern animals), including individual amphibians, reptiles, and small mammals, from construction-related activities. Temporary direct impacts to habitat for special-status wildlife species will be reduced to less than significant through biological monitoring (**M-BI-1**), temporary construction fencing (**M-BI-2**), preconstruction surveys for nesting birds and setbacks (**M-BI-6**), and restoration of temporary vegetation impacts (**M-BI-12**), and minimization of noise (**M-BI-18**).

**Impact BI-8:** The Proposed Project would result in a potentially significant permanent direct impact if any active nests or the young of nesting special-status bird species are impacted. This impact will be mitigated through avoidance by preconstruction surveys for nesting birds (**M-BI-6**) and biological monitoring (**M-BI-1**).

**Impact BI-11:** The significant short-term indirect impacts to avian foraging and wildlife access to foraging, nesting, or water resources will be reduced to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction and 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 will prevent construction impacts beyond the Development Footprint.

**Impact BI-12:** The significant long-term indirect impacts to special-status wildlife species will 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** (noise), **M-BI-19** (fire protection), and **M-BI-20** (lighting).

Riparian Habitat and Sensitive Natural Community and Jurisdictional Wetlands and Waterways

**Impact BI-13:** The significant temporary direct impacts to sensitive vegetation communities will 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 will mitigate for this impact through construction-related measures to reduce impacts outside of the off-site improvement areas, restoration of temporary impacted areas, and agency permitting for impacts to jurisdictional aquatic resources.

**Impact BI-14:** The significant permanent, direct impact to 689.7 acres of vegetation communities within Village 14 and Planning Areas 16/19 (Tables 2.4-13 and 2.4-15) will 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 the MSCP, and restoration of temporarily impacted areas.

**Impact BI-15:** The significant permanent and temporary, direct impact to City of San Diego Cornerstone Lands will 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 will mitigate for this impact through construction-related measures to reduce impacts outside of the off-site improvement areas, restoration of temporarily impacted areas, and agency permitting for impacts to jurisdictional aquatic resources.

**Impact BI-16:** The significant temporary, direct impacts to lands in the City of Chula Vista as a result of the improvements to Proctor Valley Road will 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 agency permits. The significant temporary, direct impacts to vegetation within the City Chula Vista will also be reduced to less than significant through implementation of these mitigation measures.

**Impact BI-17:** Direct impacts to off-site road development in private lands are subject to the Otay Ranch RMP, which states that these facilities are an allowable use in the Otay Ranch RMP 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 considered significant. The significant temporary, direct impacts to off-site lands within the Otay Ranch Preserve will 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), which will mitigate for this impact through construction-related measures to reduce impacts outside of the Development Footprint and restoration of temporary impacts.

**Impact BI-18:** Impacts to off-site road development within the County of San Diego are subject to the Otay Ranch RMP, which states that these facilities are an allowable use in the Otay Ranch RMP 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 considered significant. The significant temporary, direct impacts to off-site lands within the Otay Ranch Preserve will 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). Implementation of these mitigation measures would reduce impacts to sensitive upland habitats to less than significant.

**Impact BI-19:** 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). **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 road elements from the conveyance requirements, permanent impacts to sensitive vegetation communities within CDFW-owned lands associated with improvements to Proctor Valley Road do not require mitigation.

**Impact BI-20:** The significant temporary direct impacts to jurisdictional aquatic resources will 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 BI-21:** The significant permanent direct impacts to 2.87 acres of jurisdictional resources will be reduced to less than significant through implementation of **M-BI-21** (federal and state agency permits), which will 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 BI-22:** The significant temporary indirect impacts to jurisdictional resources will 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).

**Impact BI-23:** The significant permanent indirect impacts to jurisdictional aquatic resources will 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).

**Impact BI-24:** The significant temporary, indirect impacts to sensitive vegetation communities will 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 BI-25:** The significant permanent indirect impacts to sensitive vegetation communities will 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).

### Wildlife Movement and Nursery Sites

**Impact BI-26:** The significant temporary direct impacts to potential foraging and breeding/nesting habitat for species that use the Project Area (e.g., special-status birds) will 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 BI-27:** The significant temporary indirect impacts to habitat connectivity and wildlife corridors will 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 BI-28:** The significant permanent indirect impacts to habitat connectivity and wildlife corridors will 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).

**Table 2.4-1**
**Schedule of Surveys**

| Date | Hours[a] | Personnel | Focus | Conditions |
|---|---|---|---|---|
| *Quino Checkerspot Butterfly Habitat Assessment and Host Plant Mapping* | | | | |
| 2/21/14 | 0900–1200 | KCD, KM | QCB | 65°F–70°F, 30%–20% cc, 1–3 mph winds |
| 3/19/14 | 0927–1540 | KCD, KM, TSL | QCB | 55°F–68°F, 0% cc, 0–4 mph winds |
| 3/19/14 | 0900–1600 | CJF, PCS | QCB | 55°F–68°F, 0% cc, 0–4 mph winds |
| 3/21/14 | 0730–1300 | KCD, KM | QCB | 57°F–64°F, 90%–10% cc, 0–5 mph winds |
| *Quino Checkerspot Butterfly Habitat Assessment and Focused Surveys* | | | | |
| 2/12/15 to 4/2/15 | Varied | HELIX and subconsultants | QCB | Varied[b] |
| 2/15/16 to 3/31/16 | Varied | HELIX and subconsultants | QCB | Varied[b] |
| *Burrowing Owl Habitat Assessment and Survey* | | | | |
| 4/4/14 | 0700–1440 | DAM, KM, MP, JB | BUOW pass 1 | 50°F–61°F, 70%–90% cc, 0–2 mph winds |
| 4/7/14 | 0729–1550 | DAM, KM, JB, PCS | BUOW pass 1 | 63°F–83°F, 0% cc, 2–4 mph winds |
| 4/8/14 | 0700–1300 | DAM, MP | BUOW pass 1 | 60°F–83°F, 0% cc, 2–4 mph winds |
| 4/9/14 | 0700–1130 | DAM, JB, EAW, PCS | BUOW pass 1 | 62°F–81°F, 95%– 90% cc, 0–2 mph winds |
| 4/9/14 | 0733–1045 | MP, TSL | BUOW pass 1 | 62°F–81°F, 95%– 90% cc, 0–2 mph winds |
| 5/6/14 | 0700–1200 | DAM, EAW | BUOW pass 2 | 61°F–64°F, 80%– 50% cc, 2–5 mph wind |
| 5/7/14 | 0730–1100 | DAM, TSL | BUOW pass 2 | 60°F–64°F, 100%– 0% cc, 3–7 mph wind |
| 6/23/14 | 0700–1100 | TSL, CM, DAM | BUOW pass 3 | 59°F–67°F, 0%–100% cc, 2–6 mph winds |
| 7/14/14 | 0700–1100 | EAW, DAM | BUOW pass 4 | 63°F–72°F, 100%–70% cc, 0–4 mph winds |
| *Arroyo Toad Habitat Assessment* | | | | |
| 4/22/14 | 1000–1600 | JDP, PML | ARTO | 70°F–76°F, 5%–2%cc, 1–8 mph winds |
| *Vegetation Mapping and Jurisdictional Delineation* | | | | |
| 4/23/14 | N/A | PCS, EAW, CJF, MP | VEG/JD | 65°F, 0% cc, 0%–2 mph winds |
| 4/25/14 | 0730–1341 | MP, EAW, JB | VEG/JD | 64°F–72°F, 10% cc, 0–8 mph wind |
| 4/30/14 | 0715–1530 | PCS, EAW, CJF, MP | VEG/JD | 72°F, 0% cc, 5%–8 mph wind |
| 5/1/14 | 0700–1600 | PCS, EAW, JB, SCG | VEG/JD | 74°F–93°F, 0%–3% cc, 3–8 mph wind |
| 11/11/16 | 0800–1045 | JM | VEG/JD | 74°F–82°F, 0%–10% cc, 0–3 mph wind |
| *Rare Plant Survey* | | | | |
| 4/23/14 | 0730–1530 | KCD, DAM | RP | 58°F–75°F, 0% cc, 2–8 mph winds |
| 4/24/14 | 0730–1555 | EAW, KCD, DAM, KM, MP | RP | 58°F–75°F, 0% cc, 2–8 (gusts up to 15) mph winds |
| 5/1/14 | 0836–1545 | BAS, KCD, DAM, MP | RP | 75°F–92°F, 0% cc, 2–5 mph winds |
| 5/2/14 | 0738–1521 | BAS, DAM, KM MP | RP | 70°F–100°F, 0% cc, 2–3 mph winds |
| 5/6/15 | 1215–1800 | EJB | RP | 63°F, 80% cc, 2 mph winds |
| 5/7/15 | 0730–1830 | EJB | RP | 63°F–69°F, 80%–100% cc, 2–3 mph winds |
| 5/14/15 | 1000–1745 | CJF, EJB | RP | 55°F–63°F, 40%–100% cc, 0 mph winds; raining |
| 5/18/15 | 0745–1730 | CJF, EJB | RP | 63°F–70°F, 40%–70% cc, 2–4 mph winds |
| 5/19/15 | 0830–1100 | CJF, EJB | RP | 59°F–75°F, 70%–80% cc, 1–3 mph winds |

**Table 2.4-1**
**Schedule of Surveys**

| Date | Hours[a] | Personnel | Focus | Conditions |
|---|---|---|---|---|
| 4/26/16 | 0853–1607 | JM, KM, AT, EJB, SCG, SC | RP | 64°F–83°F, 10–20% cc, 0–6 mph winds |
| 5/4/16 | 0755–1630 | JM, AT, EJB, JW | RP | 65°F–72°F, 0% cc, 1 mph winds |
| 6/2/16 | 0730–1300 | AT, SCG, JW | RP | 66°F–80°F, 0% cc, 2–6 mph winds |
| 6/3/16 | 0720–1335 | JM, KM, KCD | RP | 64°F–84°F, 0%–100% cc, 0–3 mph winds |
| 4/5/17 | 0703–1736 | EJB, MO | RP | 59°F –83°F; 0%–30% cc; 0–1 mph winds |
| 4/6/17 | 0655–1530 | EJB, MO, JM | RP | 53°F –78°F; 0%–100% cc; 0–1 mph winds |
| 4/13/17 | 0830–1530 | KCD, JM | RP | 60°F –70°F; 20%–100% cc; 1–5 mph winds |
| 4/24/17 | 0818–1615 | EJB, KCD, JM, JW | RP | 58°F –67°F; 70%–100% cc; 1–5 mph winds |
| 4/25/17 | 0855–1803 | EJB, JM | RP | 65°F –69°F; 50%–80% cc; 0–2 mph winds |
| 4/26/17 | 0758–1510 | KCD, MO, EJB, JM | RP | 59°F –72°F; 20% cc; 0–2 mph winds |
| 4/28/17 | 1015–1445 | KCD | RP | 66°F –73°F; 0%–10% cc; 0–15 mph winds |
| 6/1/17 | 0806–1607 | ME, SCG | RP | 58°F –70°F; 0%–100% cc; 0–11 mph winds |
| 6/5/17 | 0859–1714 | EJB, ME | RP | 65°F –74°F; 20%–100% cc; 0–3 mph winds |
| 6/6/17 | 0730–1526 | EJB, ME, JM, JT | RP | 60°F –70°F; 100% cc; 0–1 mph winds |
| 6/7/17 | 0712–1500 | EJB, ME, JM, JW | RP | 58°F –70°F; 30%–100% cc; 0–3 mph winds |
| *Coastal California Gnatcatcher Surveys* | | | | |
| 6/18/14 | 0700–1205 | TSL | CAGN – Area 5 | 59°F–73°F, 0% cc; wind 3–8 mph |
| 6/26/14 | 0640–1210 | TSL | CAGN – Area 4 | 65°F–79°F, 100%–70% cc; wind 0–3 mph |
| 6/26/14 | 0600–1200 | EJB | CAGN – Area 1 | 62°F–86°F, 100%–0% cc; wind 1–4 mph |
| 6/26/14 | 0640–1210 | TSL | CAGN – Area 4 | 65°F–79°F, 100%–70% cc; wind 0–3 mph |
| 6/26/14 | 0700–1200 | JDP | CAGN – CDFW-owned lands | 64°F–78°F, 100%–70% cc; wind 1–5 mph |
| 6/27/14 | 0615–1300 | EJB | CAGN – Area 3 | 63°F–87°F, 90%–0% cc; wind 1–5 mph |
| 7/1/14 | 0608–1200 | EJB | CAGN – Area 5 | 63°F–84°F, 100%–0% cc; wind 1–5 mph |
| 7/2/14 | 0602–1200 | EJB | CAGN – Area 1 | 62°F–78°F, 100%–0% cc; wind 1–4 mph |
| 7/3/14 | 0608–1200 | EJB | CAGN – Area 3 | 64°F–81°F, 100%–0% cc; wind 1–5 mph |
| 7/8/14 | 0700–1200 | PML | CAGN – Area 5 | 67°F–89°F, 60%–5% cc; wind 4–8 mph (9–15 mph gusts) |
| 7/9/14 | 0700–1200 | JDP | CAGN – Area 4 | 67°F–82°F, 100%–0% cc; wind 1–4 mph |
| 7/9/14 | 0700–1200 | EJB | CAGN – Area 1 | 62°F–84°F, 100%–0% cc; wind 1–3 mph |
| 7/9/14 | 0700–1200 | JDP | CAGN – Area 4 | 67°F–82°F, 100%–0% cc; wind 1–4 mph |
| 7/10/14 | 0600–1200 | EJB | CAGN – Area 3 | 63°F–82°F, 100%–0% cc; wind 1–2 mph |
| 7/11/14 | 0600–1200 | EJB | CAGN – CDFW-owned lands | 62°F–81°F, 100%–0% cc; wind 1–2 mph |
| 7/16/14 | 0700–1200 | TSL | CAGN – Area 4 | 68°F–81°F, 100%–0% cc; wind 0–5 mph |
| 7/16/14 | 0700–1200 | TSL | CAGN – Area 4 | 68°F–81°F, 100%–0% cc; wind 0–5 mph |
| 10/23/14 | 0620–1145 | EJB | CAGN – Area 1 | 58°F–79°F, 0% cc; wind 1–6 mph |
| 10/24/14 | 0700–1040 | TSL | CAGN – Area 2 | 55°F–74°F, 0% cc; wind 0–3 mph |
| 10/24/14 | 0645–1030 | JDP | CAGN – Area 3 | 60°F–72°F, 0% cc; wind 0–4 mph |

**Table 2.4-1**
**Schedule of Surveys**

| Date | Hours[a] | Personnel | Focus | Conditions |
|---|---|---|---|---|
| 10/24/14 | 1030–1145 | JDP | CAGN – CDFW-owned lands | 60°F–72°F, 0% cc; wind 0–4 mph |
| 10/27/14 | 0715–1300 | KJM | CAGN – Area 4 | 54°F–71°F, 0% cc; wind 0–6 mph |
| 10/30/14 | 0700–1030 | PML | CAGN – Area 5 | 60°F–74°F, 40%–70% cc; wind 0–2 mph |
| 10/30/14 | 1030–1120 | PML | CAGN – CDFW-owned lands | 60°F–74°F, 40%–70% cc; wind 0–2 mph |
| 10/31/14 | 0615–1200 | EJB | CAGN – Area 1 | 56°F–81°F, 0% cc; wind 1–6 mph |
| 11/2/14 | 0700–1200 | JDP | CAGN – Area 2 | 57°F–68°F, 50% cc; wind 0–4 mph |
| 11/4/14 | 0700–1045 | TWP | CAGN – Area 3 | 57°F–68°F, 50% cc; wind 0–4 mph |
| 11/4/14 | 0700–1200 | JDP | CAGN – Area 4 | 56°F–74°F, 0% cc; wind 0–6 mph |
| 11/4/14 | 1045–1200 | TWP | CAGN – CDFW-owned lands | 57°F–68°F, 50% cc; wind 0–4 mph |
| 11/6/14 | 0545–0955 | BAO | CAGN – Area 5 | 50°F–83°F, 0% cc; wind 0–1 mph |
| 11/6/14 | 0955–1115 | BAO | CAGN – CDFW-owned lands | 50°F–83°F, 0% cc; wind 0–1 mph |
| 11/7/14 | 0600–1150 | AMH | CAGN – Area 1 | 64°F–78°F, 0% cc; wind 3–5 mph |
| 11/11/14 | 0540–1005 | BAO | CAGN – Area 2 | 50°F–66°F, 100% cc; wind 0–3 mph |
| 11/11/14 | 0715–1145 | KJM | CAGN – Area 3 | 51°F–71°F, 0% cc; wind 2–3 mph |
| 11/11/14 | 1145–1315 | KJM | CAGN – CDFW-owned lands | 51°F–71°F, 0% cc; wind 2–3 mph |
| 11/13/14 | 0615–1030 | AMH | CAGN – Area 5 | 55°F–69°F, 0% cc; wind 1–3 mph |
| 11/13/14 | 1030–1150 | AMH | CAGN – CDFW-owned lands | 55°F–69°F, 0% cc; wind 1–3 mph |
| 11/16/14 | 0710–1200 | PML | CAGN – Area 4 | 60°F–69°F, 5%–15% cc; wind 0–5 mph |
| 3/21/17 | 0646-1200 | TSL | Off-site roads | 48°F–65°F, <10%–15% cc; 0–4 mph winds |
| 3/28/17 | 0650-1146 | TSL | Off-site roads | 49°F–64°F, 0% cc; 0–5 mph winds |
| 4/6/17 | 0652-1148 | TSL | Off-site roads | 56°F–69°F, <10%–50% cc; 0–4 mph winds |
| *Hermes Copper Butterfly Habitat Assessment and Surveys*[c] | | | | |
| 3/17/2015 | 0755–1515 | EAW, KCD | Hermes Copper Habitat Assessment | 55°F–77°F; 80%–100% cc; 4–100 mph winds |
| 3/18/2015 | 0730–1515 | EAW, KCD | Hermes Copper Habitat Assessment | 56°F–69°F; 100% cc; 1–7 mph wind |
| 3/19/2015 | 0715–1350 | EAW, KCD | Hermes Copper Habitat Assessment | 56°F–71°F; 20%–100% cc; 2–5 mph winds |
| 5/26/15 | 1130–1730 | CJF, EJB | Hermes Copper Focused Survey | 68°F–72°F, 80%–100% cc, 0–1 mph winds |
| 5/29/15 | 0940–1408 | EJB | Hermes Copper Focused Survey | 72.9°F–83.1°F, 0% cc, 0–1.3 mph winds |
| 6/9/15 | 0930–1735 | CJF, MP, SJ | Hermes Copper Focused Survey | 78°F–82°F, 60%–80% cc, 1–2 mph winds |
| 6/23/15 | 0850–1730 | EJB, MP | Hermes Copper Focused Survey | 74.8°F–85.8°F, 0% CC, 1–2 mph winds |

**Table 2.4-1**
**Schedule of Surveys**

| Date | Hours[a] | Personnel | Focus | Conditions |
|---|---|---|---|---|
| 6/24/15 | 0900–1300 | MP | Hermes Copper Focused Survey | 71°F–76°F, 0% cc, 0–2 mph winds |
| 7/7/15 | 1300–1800 | MP | Hermes Copper Focused Survey | 79°F–81°F, 0% cc, 3–5 mph winds |
| 7/8/15 | 1200–1740 | MP | Hermes Copper Focused Survey | 73°F–77°F, 0% cc, 2–6 mph winds |
| 7/9/15 | 1130–1330 | MP | Hermes Copper Focused Survey | 73°F–76°F, 25% cc, 2–3 mph winds |
| 7/10/15 | 1130–1330 | MP, CJF | Hermes Copper Focused Survey | 78°F, 20% cc, 1–3 mph winds |
| 3/29/17 | 0911-1525 | CJF, MO, SC | Hermes Copper Habitat Assessment | 64–82°F; 0% cloud cover; 0–5 mph winds |
| 4/3/17 | 0815–1635 | MO | Hermes Copper Habitat Assessment | 57°F –63°F; 10% cc; 0–3 mph winds |
| 4/4/17 | 0832-1526 | CJF | Hermes Copper Habitat Assessment | 58°F –75°F; 0% cc; 0–2 mph winds |
| 4/11/17 | 0832–1705 | MO | Hermes Copper Habitat Assessment | 57°F –65°F; 0% cc; 0–5 mph winds |
| 4/11/17 | 1200–1708 | SC | Hermes Copper Habitat Assessment | 68°F –71°F; 0% cc; 0–5 mph winds |
| 4/13/17 | 0846–1822 | MO | Hermes Copper Habitat Assessment | 62°F; 60–100% cc; 0–5 mph winds |
| 4/13/17 | 1205–1808 | SC | Hermes Copper Habitat Assessment | 66°F –72°F; 20%–70% cc; 0–5 mph winds |
| 4/15/17 | 1145–1500 | SC | Hermes Copper Habitat Assessment | NR |
| 4/19/17 | 1014–1626 | CJF | Hermes Copper Habitat Assessment | 70°F –73°F; 0%–10% cc; 0–2 mph winds |
| 4/24/17 | 0750–1640 | MO | Hermes Copper Habitat Assessment | 57°F –66°F; 50%–100% cc; 0–3 mph winds |
| 4/25/17 | 0823–1819 | MO, SC | Hermes Copper Habitat Assessment | 59°F –62°F; 70%–80% cc; 0–4 mph winds |
| 5/1/17 | 0803–1530 | KCD | Hermes Copper Habitat Assessment | 63°F –78°F; 0% cc; 0–12 mph winds |
| 5/1/17 | 0806–1435 | MO | Hermes Copper Habitat Assessment | 63°F –78°F; 0% cc; 0–4 mph winds |
| 5/17/17 | 0949–1448 | SC | Hermes Copper Focused Survey | 70.5°F –73°F; 20%–30% cc; 0–5 mph winds |
| 5/18/17 | 0926–1740 | CJF, MO, PCS | Hermes Copper Focused Survey | 70°F –72°F; 0% cc; 0–1 mph winds |
| 5/19/17 | 0845–1515 | KS | Hermes Copper Focused Survey | 76°F –89°F; 0% cc; 1–10 mph winds |
| 6/1/17 | 1111–1722 | EJB, KS, MO | Hermes Copper Focused Survey | 70°F –72°F; 0%–20% cc; 0–7 mph winds |

**Table 2.4-1**
**Schedule of Surveys**

| Date | Hours[a] | Personnel | Focus | Conditions |
|---|---|---|---|---|
| 6/5/17 | 0921-1638 | SC | Hermes Copper Focused Survey | 70.6°F –80.4°F; 10%–20% cc |
| 6/9/17 | 0924–1246 | SC | Hermes Copper Focused Survey | 73°F –86.4°F; 0%–10% cc; 0–2 mph winds |
| 6/15/17 | 0825–1602 | CJA, KS, MO | Hermes Copper Focused Survey | 70°F –93°F; 0% cc; 0–2 mph winds |
| 6/18/17 | 0855–1516 | EJB | Hermes Copper Focused Survey | 73°F –82°F; 0%–10% cc; 0–3 mph winds |
| 6/23/17 | 1000–1745 | SC, MF | Hermes Copper Focused Survey | 76°F –78°F, 10%–20% cc; 1–4 mph winds |
| 7/6/17 | 0905–1614 | CJF | Hermes Copper Focused Survey | 79°F –89°F; 0%–60% cc; 0–1 mph winds |
| 7/6/17 | 0808–1521 | KS | Hermes Copper Focused Survey | 73°F –88°F; 0%–20% cc; 0–5 mph winds |
| 7/6/17 | 0830–1800 | MF, SC | Hermes Copper Focused Survey | 74°F –77°F; 0%–10% cc; 0–5 mph winds |
| 7/7/17 | 0810–1116 | KS | Hermes Copper Focused Survey | 82°F –95°F; 0%–10% cc; 0–4 mph winds |
| 7/8/17 | 0900–1515 | SC | Hermes Copper Focused Survey | 76°F –94°F; 10%–40% cc; 0–4 mph winds |
| *Listed Large Branchiopods (Fairy Shrimp) Habitat Assessments and Surveys[d]* | | | | |
| 4/11/14 | 0850–1430 | TSL | Vernal Pool Habitat Assessment 1 | 66°F–88°F, 10% cc, 0–3 mph winds |
| 6/18/14 | N/A | TSL | Vernal Pool Habitat Assessment 2 | N/A |
| 12/19/14 | 0830–1315 | DAM, PML, TSL | Fairy Shrimp Survey 1 | 57°F–75°F, 0% cc, 0–3 mph winds |
| 1/2/15 | 0800–1430 | DAM, TSL | Fairy Shrimp Survey 2 | 43°F–63°F, 0% cc, 0–1 mph winds |
| 1/13/15 | 0903–NR | DAM | Fairy Shrimp Survey 3 | 57°F–63°F, NR cc, NR mph winds |
| 1/16/15 | 0730–NR | DAM, TSL | Fairy Shrimp Survey 4 | 42°F–NR°F, 0% cc, 0 mph winds |
| 1/30/15 | 0747–NR | DAM | Fairy Shrimp Survey 5 | 57°F–63°F, NR cc, NR mph winds |
| 2/13/15 | N/A | DAM | Fairy Shrimp Survey 6 | 53°F–74°F, NR cc, 1–6 mph winds |
| 3/3/15 | 0910–1400 | DAM, TSL | Fairy Shrimp Survey 7 | 68°F–75°F, 0–10% cc, 0 mph winds |
| 3/16/15 | 1238–NR | DAM | Fairy Shrimp Survey 8 | 88°F, NR cc, 1-4 mph winds |
| 3/30/15 | N/A | DAM | Fairy Shrimp Survey 9 | 55°F–80°F, NR cc, 1–8 mph winds |

**Table 2.4-1**
**Schedule of Surveys**

| Date | Hours[a] | Personnel | Focus | Conditions |
|---|---|---|---|---|
| 5/18/15 | 0850–1210 | TSL | Fairy Shrimp Survey 10 | NR°F–77°F, 25%–40% cc, 1–4 mph winds |
| 6/1/15 | N/A | TSL | Fairy Shrimp Survey 11 | 59°F–79°F, NR cc, 0 mph winds |
| 10/22/15 | N/A | TSL, MP | Dry Season Survey | N/A |
| 11/10/15 | NR | PML | Fairy Shrimp Survey 1 | NR |
| 12/29/15 | 1004–1259 | TSL | Fairy Shrimp Survey 2 | 59-66°F, 0% cc, 1–4 mph winds |
| 1/5/16 | 0907–1018 | TSL | Fairy Shrimp Survey 3 | 53°F, 100% cc, 0 mph winds |
| 1/10/16 | 0956–1229 | TSL | Fairy Shrimp Survey 4 | 56°F, 100% cc, 0 mph winds, sprinkling |
| 1/12/16 | 1026–1338 | TSL | Fairy Shrimp Survey 5 | 59–62°F, 0% cc, 0 mph winds |
| 1/19/16 | 0835–1045 | TSL | Fairy Shrimp Survey 6 | 53–60°F, 0%-90% cc, 0–1 mph winds |
| 1/26/16 | NR | TSL | Fairy Shrimp Survey 7 | NR |
| 2/2/16 | 0740–1250 | TSL | Fairy Shrimp Survey 8 | 46–53°F, 0% cc, 1–3 mph winds |
| 2/9/16 | 0844–NR | TSL | Fairy Shrimp Survey 9 | 71°F, 0% cc, 0 mph winds |
| 2/16/16 | NR | TSL | Fairy Shrimp Survey 10 | NR |
| 2/22/16 | NR | TSL | Fairy Shrimp Survey 11 | NR |
| 3/10/16 | 0825–1137 | TSL | Fairy Shrimp Survey 12 | 59°F–66°F, 0%–10% cc, 0 mph winds |
| 3/16/16 | 1037–1300 | TSL | Fairy Shrimp Survey 13 | 80°F–87°F, 0% cc, 0 mph winds |
| 3/22/16 | NR | TSL | Fairy Shrimp Survey 14 | NR |
| 3/29/16 | NR | TSL | Fairy Shrimp Survey 15 | NR |
| 4/13/16 | 1240–1500 | TSL | Fairy Shrimp Survey 16 | 73°F–75°F, 0% cc, 0–2 mph winds |
| 4/20/16 | NR | TSL | Fairy Shrimp Survey 17 | NR |
| 5/4/16 | NR | TSL | Fairy Shrimp Survey 18 | NR |
| 5/12/16 | NR | TSL | Fairy Shrimp Survey 19 | NR |
| 11/18/16 | 1200–1600 | TSL | Dry Season Survey | 70°F–69°F, 0% cc, 0 mph wind |

## Table 2.4-1
## Schedule of Surveys

| Date | Hours[a] | Personnel | Focus | Conditions |
|---|---|---|---|---|
| *Western Spadefoot Surveys* | | | | |
| 3/7/17 | 0759–1230 | TSL | Pass 1 | 49°F–74°F, 0% cc, 0 mph winds |
| 3/8/17 | 1100–1400 | TSL | Pass 1 | 76°F–81°F, <10% cc, 1–4 mph winds |
| 3/9/17 | 1130–1510 | TSL | Pass 1 | 76°F–80°F, 0% cc, 0 mph winds |
| 3/17/17 | 0910–1448 | TSL | Pass 2 | 70°F–84°F, 0% cc, 0 mph winds |
| 3/28/17 | 1235–1530 | TSL | Pass 3 | 64°F–67°F, 0% cc, 0 mph winds |
| *Additional Parcels* | | | | |
| 5/15/14 | 0700–1100 | EAW, DAM | Veg/JD, BUOW, RP | 75°F–100°F, 0% cc, 2–7 mph wind |
| 5/18/15 | 1730–1830 | CJF, EB | VEG/JD (Off-Site Waterline) | 63°F–70°F, 40%–70% cc, 2–4 mph winds |
| 6/15/15 | 1100–1600 | BAO | BUOW/CAGN Habitat Assessment (Off-Site Waterline) | 90°F–100°F, 0% cc, 3–5 mph wind |

**Definitions:** °F = degrees Fahrenheit; cc = cloud cover; mph = mile(s) per hour; N/A = not applicable; NR = not recorded
**Personnel:** KCD = Kathleen Dayton; KM = Kyle Mathews; DAM= Danielle Mullen; EAW = Emily Wier; JB = Joseph Broad; CM = Caroline Monaco; SCG = Scott Gressard; MP = Marshall Paymard; CJF = Callie Ford; PCS = Patricia Schuyler; EJB = Erin Bergman; TSL = Thomas Liddicoat; JDP = Jeff Priest; PML = Paul Lemons; AMH = Anita Hayworth, PhD; BAO = Brock Ortega; BAS = Britney Strittmater; TWP = Tricia Wotipka; SJ = Sienna Josh; JM = Jake Marcon; AT = Andy Thomson; SC = Shana Carey; JW = Janice Wondolleck, MO = Monique O'Conner; KS = Kevin Shaw; ME = Megan Enright; JT = Jayme Timberlake.
**Survey Designations/Focus:** QCB = habitat assessment for Quino checkerspot butterfly; BUOW = focused survey for burrowing owl; ARTO = arroyo toad habitat assessment; RP = rare plant survey; VEG = vegetation mapping; JD = jurisdictional delineation; CAGN = focused survey for coastal California gnatcatcher.
**Notes:**
[a] Hours and weather conditions for the jurisdictional wetland delineation, vegetation mapping, rare plant surveys, and fairy shrimp may be reported as N/A (not applicable) because they are not relevant to the outcome of those surveys.
[b] The schedule for the focused Quino checkerspot butterfly surveys is included in Appendix B of the focused survey reports (Appendix D of the BTR).
[c] Weekly Hermes copper surveys were spaced over several days due to weather conditions. Some surveys were conducted during high cloud cover days due to the number of active butterflies observed in those conditions.
[d] Conditions for focused fairy shrimp surveys that were not recorded (NR) were site checks to detect and confirm pooling after rainfall, and therefore data was not collected.

## Table 2.4-2
## Vegetation Communities and Land Cover Types in the Project Area

| Habitat Types/Vegetation Communities | Code[a] | Project Area (acres) | | | Total Acres[c] |
|---|---|---|---|---|---|
| | | *Village 14* | *Planning Areas 16/19* | *Off-Site Improvement Areas[b]* | |
| *Sensitive Upland Communities* | | | | | |
| Granitic chamise chaparral | 37210 | 289.0 | — | 18.8 | 307.8 |
| Granitic chamise chaparral (disturbed) | 37210 | 0.8 | — | — | 0.8 |
| Granitic southern mixed chaparral | 37121 | — | 94.9 | 4.3 | 99.2 |
| Diegan coastal sage scrub | 32500 | 309.3 | 373.0 | 28.8 | 711.1 |
| Diegan coastal sage scrub (disturbed) | 32500 | 71.5 | 11.9 | 9.6 | 93.0 |
| Diegan coastal sage scrub – *Baccharis* dominated | 32530 | — | — | 0.7 | 0.7 |

## Table 2.4-2
## Vegetation Communities and Land Cover Types in the Project Area

| Habitat Types/Vegetation Communities | Code[a] | Project Area (acres) | | | Total Acres[c] |
|---|---|---|---|---|---|
| | | *Village 14* | *Planning Areas 16/19* | *Off-Site Improvement Areas[b]* | |
| Diegan coastal sage scrub – *Baccharis* dominated (disturbed) | 32530 | — | — | 0.6 | 0.6 |
| Non-native grassland | 42200 | 34.9 | 62.4 | 14.9 | 112.2 |
| *Subtotal of Sensitive Upland Communities* | | *705.4* | *542.3* | *77.8* | *1,325.5* |
| *Jurisdictional Aquatic Resources* | | | | | |
| Cismontane alkali marsh (including disturbed) | 52310 | 1.1 | 6.7 | — | 7.8 |
| Mulefat scrub | 63310 | 0.2 | 0.5 | 0.3 | 1.0 |
| Coastal and valley freshwater marsh | 52410 | — | — | 0.4 | 0.4 |
| Southern coast live oak riparian forest | 61310 | 0.7 | — | — | 0.7 |
| Southern willow scrub | 63320 | — | 0.3 | 0.1 | 0.3 |
| Open water | 64100 | — | 0.4 | — | 0.4 |
| Unvegetated channel | 64200 | See Section 2.4.3.3 | See Section 2.4.3.3 | 0.1[d] | 0.1 |
| *Subtotal of Jurisdictional Aquatic Resources* | | *2.0* | *7.9* | *0.9* | *10.8* |
| *Non-Sensitive Communities and Land Covers* | | | | | |
| Eucalyptus woodland | 79100 | — | 2.7 | 0.2 | 2.9 |
| Urban/developed | 12000 | 3.0 | 1.1 | 3.2 | 7.3 |
| Disturbed habitat | 11300 | 13.2 | 5.9 | 3.4 | 22.5 |
| *Subtotal of Non-Sensitive Communities and Land Covers* | | *16.2* | *9.7* | *6.7* | *32.7* |
| **Total[c]** | | **723.7** | **559.9** | **85.4** | **1,369.0** |

[a] Oberbauer et al. 2008.
[b] Off-site improvement areas are shown in Table 2.4-3.
[c] May not total due to rounding.
[d] Unvegetated stream channel is also an overlay within various vegetation communities and is therefore not fully represented in this table. See Section 4.7.

## Table 2.4-3
## Vegetation Communities and Land Cover Types by Off-Site Improvement Area (acres)

| Habitat Types/Vegetation Communities | Off-Site Improvement Areas | | | | Total Off-Site Area (Acres)[a] |
|---|---|---|---|---|---|
| | *Proctor Valley Road South* | *Proctor Valley Road Central* | *Proctor Valley Road North* | *Planning Areas 16/19 Roads* | |
| *Sensitive Upland Communities* | | | | | |
| Granitic chamise chaparral | — | 12.5 | 6.3 | — | 18.8 |
| Southern mixed chaparral | 3.2 | — | — | 1.1 | 4.3 |
| Diegan coastal sage scrub | 11.6 | — | 2.6 | 14.7 | 28.8 |
| Diegan coastal sage scrub (disturbed) | 4.1 | 5.5 | <0.1 | — | 9.6 |

**Table 2.4-3**
**Vegetation Communities and Land Cover Types by Off-Site Improvement Area (acres)**

| Habitat Types/Vegetation Communities | Off-Site Improvement Areas | | | | Total Off-Site Area (Acres)[a] |
|---|---|---|---|---|---|
| | *Proctor Valley Road South* | *Proctor Valley Road Central* | *Proctor Valley Road North* | *Planning Areas 16/19 Roads* | |
| Diegan coastal sage scrub – Baccharis dominated | 0.7 | — | — | — | 0.7 |
| Diegan coastal sage scrub – Baccharis dominated (disturbed) | | 0.6 | — | — | 0.6 |
| Non-native grassland | 9.4 | 0.7 | 4.9 | — | 14.9 |
| *Subtotal* | *28.9* | *19.3* | *13.8* | *15.8* | *77.8* |
| *Jurisdictional Aquatic Resources* | | | | | |
| Mulefat scrub | 0.3 | — | — | — | 0.3 |
| Coastal and valley freshwater marsh | 0.4 | — | — | — | 0.4 |
| Southern willow scrub | — | — | 0.1 | — | 0.1 |
| Unvegetated channel[b] | 0.1 | — | — | — | 0.1 |
| *Subtotal* | *0.8* | — | *0.1* | — | *0.9* |
| *Non-Sensitive Communities and Land Covers* | | | | | |
| Eucalyptus woodland | 0.1 | 0.1 | — | — | 0.2 |
| Urban/developed | 1.4 | — | 1.7 | — | 3.2 |
| Disturbed habitat | 1.5 | 0.4 | 1.5 | — | 3.4 |
| *Subtotal* | *3.0* | *0.5* | *3.2* | — | *6.7* |
| **Total[a]** | **32.7** | **19.8** | **17.1** | **15.8** | **85.4** |

[a] May not total due to rounding. This does not include 0.5 acres of impacts which may be required for widening Proctor Valley Road.
[b] Unvegetated stream channel is also an overlay within various vegetation communities and is therefore not fully represented in this table. See Section 2.4.3.3.

**Table 2.4-4**
**Coastal California Gnatcatcher Locations and Populations within the Survey Area**

| Coastal California Gnatcatcher Populations Types | Total Populations within the Survey Area | Otay Ranch RMP Preserve[a] | On-Site Development Footprint | | Off-Site Improvement Area Survey Area[b] | | |
|---|---|---|---|---|---|---|---|
| | | | *Village 14* | *Planning Areas 16/19* | *City of Chula Vista* | *City of San Diego* | *CDFW-Owned* |
| Juvenile | 2 | — | — | — | — | 2 | — |
| Male | 3 | — | 1 | — | 1 | — | 1 |
| Pair | 10 pairs (20 birds) | 3 pairs (6 birds) | — | 1 pair (2 birds) | 1 pair (2 birds) | 3 pair (6 birds) | 2 pair (4 birds) |
| Pair and Fledglings | 1 pair, 2 fledglings (4 birds) | — | — | — | — | 1 pair, 2 fledglings (4 birds) | — |
| **Total Population** | **29** | **6** | **1** | **2** | **3** | **12** | **5** |

**Note**: This table does not represent impacts to coastal California gnatcatcher, only the results of focused surveys.

[a] Total populations within the Project Area includes three pair (six birds) observed within the Otay Ranch RMP Preserve (Appendix K of the BTR).
[b] Note that some of the observations are outside the Project Area and Development Footprint.

## Table 2.4-5
## ACOE/RWQCB/CDFW-Jurisdictional Aquatic Resources within the Project Area

| Vegetation Community/Jurisdictional Resource | *Project Area* | | | **Total** |
|---|---|---|---|---|
| | *Village 14* | *Planning Areas 16/19* | *Off-Site Improvement Areas* | |
| *ACOE/RWQCB Wetlands and CDFW Riparian Areas* | | | | |
| Cismontane alkali marsh (including disturbed) | 1.12 acres<br>2,953 lf | 6.66 acres<br>4,640 lf | <0.01 acres<br>22 lf | 7.78 acres<br>7,616 lf |
| Coastal freshwater marsh | — | — | 0.43 acres<br>830 lf | 0.43 acres<br>830 lf |
| Mulefat scrub | 0.2 acres<br>190 lf | 0.51 acres<br>719 lf | 0.27 acres<br>234 lf | 0.98 acres<br>1,143 lf |
| Southern coast live oak riparian forest | 0.71 acres<br>907 lf | — | — | 0.71 acres<br>907 lf |
| Southern willow scrub | — | 0.27 acres<br>449 lf | 0.05 acres<br>86 lf | 0.32 acres<br>535 lf |
| *Total* | *2.03 acres<br>4,049 lf* | *7.45 acres<br>5,808 lf* | *0.75 acres<br>1,172 lf* | *10.23 acres<br>11,029 lf* |
| *ACOE/RWQCB Non-Wetland Waters and CDFW Streambed* | | | | |
| Unvegetated channel | 1.54 acres<br>19,005 lf | 1.10 acres<br>7,938 | 0.43 acres<br>3,406 | 3.06 acres<br>30,349 lf |
| Open water | — | 0.44 acres<br>381 lf | — | 0.44 acres<br>381 lf |
| *Total* | *1.54 acres<br>19,005 lf* | *1.54 acres<br>8,319 lf* | *0.43 acres<br>3,406 lf* | *3.50 acres<br>30,730 lf* |
| **Total jurisdictional aquatic resources** | **3.57 acres<br>23,054 lf** | **8.98 acres<br>14,127 lf** | **1.18 acres<br>4,578 lf** | **13.73 acres<br>41,760 lf** |

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

**Table 2.4-6**
**Summary of Direct Impacts to Special-Status Plant Species**

| Species<br>Scientific Name / Common Name | Regulatory Status:<br>Federal/State/County<br>CRPR | Approximate Number of Individuals within the Project Area | Approximate Number of Individuals Impacted[a] | | |
|---|---|---|---|---|---|
| | | | *On-Site*[b] | *Off-Site* | *Impact Total* |
| *County List A* | | | | | |
| *Arctostaphylos otayensis*<br>Otay manzanita | None/None/Covered/1B.2 | 627 | — | — | — |
| *Bloomeria clevelandii*<br>San Diego goldenstar | None/None/Covered/1B.1 | 4,952 | 775 | — | 775 |
| *Brodiaea orcuttii*<br>Orcutt's brodiaea | None/None/Covered/1B.1 | 83 | 83 | — | 83 |
| *Calochortus dunnii*<br>Dunn's mariposa-lily | None/SR/Covered, Narrow Endemic/1B.2 | 453 | — | — | — |
| *Clarkia delicata*<br>delicate clarkia | None/None/Not Covered/1B.2 | 5 | — | 4 | 4 |
| *Clinopodium chandleri*<br>San Miguel savory | None/None/Covered/1B.2 | 1 | — | — | — |
| *Deinandra conjugens*<br>Otay tarplant | FT/SE/Covered/1B.1 | 25 | — | 25 | 25 |
| *Dudleya variegata*<br>Variegated dudleya | None/None/Covered, Narrow Endemic/1B.2 | 35 | 35 | — | 35 |
| *Lepechinia ganderi*<br>Gander's pitcher sage | None/None/Covered, Narrow Endemic/1B.3 | 168 | — | — | — |
| *Lepidium virginicum* var. *robinsonii*<br>Robinson's pepper-grass | None/None/Not Covered/4.3 | 174 | 168 | — | 168 |
| *Navarretia fossalis*<br>Spreading navarretia | FT/None/Covered/1.B | Critical habitat | 12.5 acres[c] | 4.1 acres | 16.6 acres |
| *County List B* | | | | | |
| *Ferocactus viridescens*<br>San Diego barrel cactus | None/None/Covered/2B.1 | 50 | 36 | 12 | 48 |
| *Iva hayesiana*<br>San Diego marsh-elder | None/None/Not Covered/2B.2 | 5,556 | 3,904 | 33 | 3,937 |

**Table 2.4-6**
**Summary of Direct Impacts to Special-Status Plant Species**

| Species<br>Scientific Name / Common Name | Regulatory Status:<br>Federal/State/County<br>CRPR | Approximate Number of Individuals within the Project Area | Approximate Number of Individuals Impacted[a] | | |
|---|---|---|---|---|---|
| | | | *On-Site*[b] | *Off-Site* | *Impact Total* |
| *Salvia munzii*<br>Munz's sage | None/None/Not Covered/2B.2 | 18,178 | 11,677 | 36 | 11,713 |
| *County List D* | | | | | |
| *Artemisia palmeri*<br>San Diego sagewort | None/None/Not Covered/4.2 | 16 | 4 | — | 4 |
| *Dichondra occidentalis*<br>Western dichondria | None/None/Not Covered/4.2 | 0.23 acres | 0.23 acres[c] | — | 0.23 acres |
| *Harpagonella palmeri*<br>Palmer's grapplinghook | None/None/Not Covered/4.2 | 40 | 40 | — | 40 |
| *Holocarpha virgata* ssp. *elongata*<br>Graceful tarplant | None/None/Not Covered/4.2 | 20 | 20 | — | 20 |
| *Juncus acutus* ssp. *leopoldii*<br>Southwestern spiny rush | None/None/Not Covered/4.2 | 577 | 75 | 10 | 85 |
| *Pentachaeta aurea* ssp. *aurea*<br>Golden-rayed pentachaeta | None/None/Not Covered/4.2 | 12,608 | 6,350 | — | 6,350 |
| *Selaginella cinerascens*<br>Ashy spike-moss | None/None/Not Covered/4.1 | 6.63 acres | 3.63 acres[c] | 0.06 acres | 3.69 acres |
| *Stipa [=Achnatherum] diegoensis*<br>San Diego County needle grass | None/None/Not Covered/4.2 | 175 | 61 | 7 | 68 |
| *Viguiera laciniata*<br>San Diego County viguiera | None/None/Not Covered/4.2 | 18,599 | 6,543 | 188 | 6,731 |

**Federal**
FT = federally threatened
**State**
SE = state endangered
SR = state rare
**County**
Covered = Covered species under the MSCP County Subarea Plan

Not Covered = Not a covered species under the MSCP County Subarea Plan
**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)
**Notes:**
[a] Impacts to rare plants include impacts within the permanent and temporary areas.
[b] On-site impacts include impacts within designated development areas and Otay Ranch RMP Preserve, as well as portions of impacts within the LDA. Additional impacts may occur to 13 San Diego marsh elder and six southwestern spiny rush as a result of Proctor Valley Road widening.
[c] Impacts are in acres occupied rather than number of individuals impacts due to the difficulty in counting distinct individuals for species with such growth habits.

## Table 2.4-7
## Summary of Impacts to Sensitive Plants and Required Mitigation – County List A and B, Non-Covered, and Narrow Endemics

| Species Scientific Name/ Common Name | Regulatory Status: Federal State CRPR MSCP Coverage County List | Basis for Impact Evaluation | Mitigation Requirements | Significance Determination |
|---|---|---|---|---|
| *Bloomeria clevelandii* San Diego goldenstar | None<br>None<br>1B.1<br>Covered<br>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<br>None<br>1B.2<br>Covered, Narrow Endemic<br>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 participating in the MSCP Plan, 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 a less-than-significant level. With these measures, the Proposed Project would contribute to the Ranch-wide preservation goals. |

**Table 2.4-7**
**Summary of Impacts to Sensitive Plants and Required Mitigation – County List A and B, Non-Covered, and Narrow Endemics**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State CRPR MSCP Coverage County List | Basis for Impact Evaluation | Mitigation Requirements | Significance Determination |
|---|---|---|---|---|
| | | | | However, since this species is a narrow endemic, 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. |
| *Ferocactus viridescens* San Diego barrel cactus | None<br>None<br>Covered<br>2B.1<br>List B | Approximately 36 San Diego barrel cactus individuals were recorded within the southern portion of the Village 14 Development Footprint. | Translocation of 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 of the BTR), 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. |
| *Iva hayesiana* San Diego marsh-elder | None<br>None<br>2B.2<br>Not Covered<br>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 would be provided at a 1:1 ratio for 1,024 individuals (see Appendix A of the BTR). 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.<br>Since San Diego marsh-elder is not a Covered Species, impacts to 10 individuals within the City of San Diego Cornerstone Lands would be significant absent mitigation.<br><br>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 MSCP City of Chula Vista Subarea Plan (City of Chula Vista 2003) and the |

**Table 2.4-7**
**Summary of Impacts to Sensitive Plants and Required Mitigation – County List A and B, Non-Covered, and Narrow Endemics**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State CRPR MSCP Coverage County List | Basis for Impact Evaluation | Mitigation Requirements | Significance Determination |
|---|---|---|---|---|
| | | | | 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. |
| *Lepidium virginicum* var. *robinsonii* Robinson's pepper-grass | None<br>None<br>4.3<br>Not Covered<br>List A | Approximately 174 individuals of this species were recorded in the Project Area. Of these, approximately 168 individuals would be impacted on site within the Village 14 Development Footprint. | As a condition of the BMO analysis, mitigation would be provided for impacts to 106 individuals at a 2:1 ratio (see Appendix A to the BTR). | Robinson's pepper-grass has a CRPR of 4 and is more common than previously thought (previously CRPR 1B.2; CNPS 2017). 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 this species are not considered significant, suitable habitat for this 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

**Table 2.4-8**
**Summary of Impacts to Sensitive Plants – List C and D**

| Species Scientific Name/ Common Name | Regulatory Status: Federal/ State/CRPR/ MSCP Coverage/ County List | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|
| *Artemisia palmeri* San Diego sagewort | None<br>None<br>4.2<br>Not covered<br>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 2017), 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 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. |
| *Dichondra occidentalis* Western dichondria | None<br>None<br>4.2<br>Not covered<br>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 2017), impacts to 0.23 acres is not expected to impact the local long-term survival of this species. |
| *Harpagonella palmeri* Palmer's grapplinghook | None<br>None<br>List 4.2<br>Not Covered<br>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 2017), impacts to 40 individuals is not expected to impact the local long-term survival of this species. |
| *Holocarpha virgata* ssp. *elongata* Graceful tarplant | None<br>None<br>List 4.2<br>Not Covered<br>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 |

**Table 2.4-8**
**Summary of Impacts to Sensitive Plants – List C and D**

| Species Scientific Name/ Common Name | Regulatory Status: Federal/ State/CRPR/ MSCP Coverage/ County List | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|
| | | | ranking and that it is known from 25 quads in Southern California (CNPS 2017), impacts to only 20 individuals is not expected to impact the local long-term survival of this species. |
| *Juncus acutus* ssp. *leopoldii* Southwestern spiny rush | None<br>None<br>List 4.2<br>Not Covered<br>List D | Of the approximately 577 individuals recorded in the Project Area, 75 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. | 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, 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 2017), 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 Otay Ranch RMP 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. |
| *Pentachaeta aurea* ssp. *aurea* Golden-rayed pentachaeta | None<br>None<br>List 4.2<br>Not Covered<br>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 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. |
| *Selaginella cinerascens* Ashy spike-moss | None<br>None<br>List 4.1<br>Not Covered<br>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 | 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 |

**Table 2.4-8**
**Summary of Impacts to Sensitive Plants – List C and D**

| Species Scientific Name/ Common Name | Regulatory Status: Federal/ State/CRPR/ MSCP Coverage/ County List | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|
| | | remain in the Village 14 Preserve (1.31 acres), non-graded LDA (1.22 acres), and Conserved Open Space (0.42 acres). | limited distribution and is seriously endangered in California. Given its low sensitivity ranking and that it is known from 17 quads in Southern California (CNPS 2017), 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 Otay Ranch 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 overall Otay Ranch RMP goals for this species. Therefore, impacts to ashy spike-moss would be less than significant. |
| *Viguiera laciniata* San Diego County viguiera | None<br>None<br>List 4.2<br>Not Covered<br>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)

**Table 2.4-9**
**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.

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| *Amphibians and Reptiles* | | | | | |
| *Spea hammondii* Western spadefoot | USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2 | 57 features with the potential to support this species; 16 pools were determined to be occupied. | Eight occupied features; within the Development Footprint, one occupied feature, AA3, is within the 100-foot Preserve edge and may not be impacted by the Proposed Project | Impacts to eight occupied features and preservation of eight occupied features. | Western spadefoot is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of spadefoot habitat to the Otay Ranch RMP Preserve through the preservation of eight occupied features that support these species 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. |
| *Aspidoscelis hyperythra* Orangethroat whiptail | USFWS: None CDFW: SSC MSCP: Covered County: Group 2 | 1,239.0 | 715.7 | High potential to occur. There are 1,239.0 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, 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 a less than significant. |
| *Aspidoscelis tigris stejnegeri* San Diegan tiger whiptail | USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2 | 1,350.5 | 789.2 | Observed in the east-central portion of the Project Area. There is 1,350.5 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 | San Diegan tiger whiptail is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of San Diegan tiger whiptail habitat to the Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a configuration that preserves |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | | | | woodland, mulefat scrub, non-native grassland, and southern mixed chaparral. | genetic exchange and species viability. Thus, direct impacts to this species would be reduced to less than significant. |
| *Coleonyx variegatus abbotti* San Diego banded gecko | USFWS: None CDFW: None MSCP: Not Covered County: Group 1 | 1,212.9 | 696.9 | High potential to occur. There is 1,212.9 acres of modeled habitat within the Project Area; however, because this species is associated with rocky areas, this model likely overestimates the habitat. Modeled habitat for this species includes chamise chaparral, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, mulefat scrub, and southern mixed chaparral. | San Diego banded gecko is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of San Diego banded gecko habitat to the 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. |
| *Crotalus ruber* Red diamond rattlesnake | USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2 | 1,328.7 | 779.6 | This species was observed in the southwestern portion of the Project Area. Since this species has a potential to occur throughout the Project Area, specific locations were not mapped. There are 1,328.7 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. | Red diamond rattlesnake is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of red diamond rattlesnake habitat to the 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 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| *Lichanura trivirgata* Rosy boa | USFWS: None CDFW: None MSCP: Not Covered County: Group 2 | 1,325.1 | 779.4 | Observed within the Proctor Valley Village 14 Preserve, east of the Development Footprint. There is 1,325.1 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. | Rosy boa is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of rosy boa habitat to the 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. |
| *Phrynosoma blainvillii* Blainville's horned lizard | USFWS: None CDFW: SSC MSCP: Covered County: Group 2 | 1,328.7 | 779.6 | Observed within the Village 14 Development Footprint. There is 1,328.7 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. |
| *Plestiodon skiltonianus interparietalis* Coronado skink | USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2 | 410.7 | 264.8 | High potential to occur. There is 410.7 acres of modeled habitat within the Project Area. Modeled habitat for this species includes chamise chaparral, disturbed chamise chaparral, eucalyptus woodland, and southern mixed chaparral. | Coronado skink is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of Coronado skink habitat to the Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a configuration that preserves genetic |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | | | | | exchange and species viability. Thus, direct impacts to this species would be reduced to less than significant. |
| | | | *Birds* | | |
| *Accipiter cooperii* (nesting) Cooper's hawk | USFWS: None CDFW: WL MSCP: Covered County: Group 1 | 3.6 nesting; 1,336.5 foraging | 0.2 nesting; 780.7 foraging | Observed within the Project Area. There is 3.6 acres of modeled nesting habitat and 1,336.5 acres of modeled foraging habitat within the Project Area. Nesting modeled habitat for this species includes eucalyptus woodland, and oak riparian forest. Foraging modeled habitat for this species includes chamise chaparral, cismontane alkali marsh, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, 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. |
| *Aimophila ruficeps canescens* Southern California rufous-crowned sparrow | USFWS: None CDFW: WL MSCP: Covered County: Group 1 | 1,325.1 | 779.4 | Observed within the Project Area. There is 1,325.1 acres of modeled nesting/foraging habitat within the Project Area. Nesting and foraging 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. | 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 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| *Ammodramus savannarum* (nesting) Grasshopper sparrow | USFWS: None CDFW: SSC MSCP: Not Covered County: Group 1 | 112.2 | 82.5 | Observed within the Project Area. There is 112.2 acres of modeled nesting/foraging habitat within the Project Area. Nesting and foraging modeled habitat for this species includes non-native grassland. | Grasshopper sparrow is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of grasshopper sparrow habitat to the 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. |
| *Aquila chrysaetos* (nesting and wintering) Golden eagle | USFWS: BCC CDFW: FP,WL MSCP: Covered County: Group 1 | 1,325.5 | 780.4 foraging | Observed within the Project Area. There is 1,325.5 acres of modeled foraging habitat within the Project Area. Foraging modeled habitat for this species includes coastal sage scrub (including disturbed and Baccharis dominated), chamise chaparral (including disturbed), southern mixed chaparral, and non-native grassland. These vegetation communities are based on the MSCP definition of foraging habitat and the crosswalk with project-specific data presented in Appendix C of the BTR. | Conservation provided through the Otay Ranch RMP and MSCP County Subarea Plan as per the MSCP County of San Diego Subarea Plan Implementing Agreement would provide mitigation for direct impacts to covered sensitive species and reduce impacts to less than significant.<br><br>The Proposed Project would not result in lethal take of golden eagle individuals or disturbance of any active golden eagle nest. In addition, the Proposed Project would not place human activity within 4,000 feet of an active golden eagle nest, per the conditions of the MSCP or within 3,000 feet of historical nests per the Otay Ranch Raptor |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | | | | | Management Study (Ogden 1992b).<br><br>Compliance with these plans would mitigate for the Proposed Project's direct and indirect impacts to golden eagle, reducing impacts to less than significant.<br><br>Therefore, the Proposed Project would not result in any significant impacts that have not already been mitigated by the MSCP and Otay Ranch RMP. |
| *Artemisiospiza belli belli*<br>Bell's sage sparrow | USFWS: BCC<br>CDFW: WL<br>MSCP: Not Covered<br>County: Group 1 | 1,232.7 | 719.4 | High potential to occur. There is 1,232.7 acres of modeled nesting/foraging habitat within the Project Area. Nesting and foraging 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. | Bell's sage sparrow is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of Bell's sage sparrow habitat to the 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. |
| *Asio otus*<br>Long-eared owl | USFWS: None<br>CDFW: SSC<br>MSCP: Not Covered<br>County: Group 1 | 1,328.7 | 779.6 | Observed within the Project Area. There is 1,328.7 acres of foraging habitat within the Project Area. Foraging modeled habitat for this species includes chamise chaparral, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, eucalyptus woodland, mulefat scrub, | Long-eared owl is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of long-eared owl habitat to the Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | | | | oak riparian forest, non-native grassland, and southern mixed chaparral. | configuration that preserves genetic exchange and species viability. Thus, direct impacts to this species would be reduced to less than significant. |
| *Athene cunicularia* (burrow sites and some wintering sites) Burrowing owl | USFWS: BCC CDFW: SSC MSCP: Covered County: Group 1 | 115.3 potential suitable habitat | 84.7 | Direct observations of this species did not occur during focused surveys. Incidental sighting of white wash, feathers, and pellets were observed at one location in the central portion of the Project Area during rare plant surveys. There is 115.3 acres of burrowing owl survey areas mapped within the Project Area based on the burrowing owl habitat assessment. | 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. In addition, preconstruction surveys would be conducted prior to Proposed Project construction to ensure that direct impacts to this species are avoided. |
| *Buteo lineatus* Red-shouldered hawk | USFWS: None CDFW: None MSCP: Not Covered County: Group 1 | 3.6 nesting; 1,336.5 foraging | 0.2 nesting; 780.7 foraging | Observed within the Project Area. There is 3.6 acres of modeled nesting habitat and 1,336.5 acres of modeled foraging habitat within the Project Area. Nesting modeled habitat for this species includes eucalyptus woodland, and oak riparian forest. Foraging 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, oak riparian forest, non-native grassland, and southern mixed chaparral. | Impacts to red-shouldered hawk would be less than significant due to the small amount of suitable nesting habitat proposed to be impacted. |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| *Cathartes aura* Turkey vulture | USFWS: None CDFW: None MSCP: Not Covered County: Group 1 | 1,259.8 | 785.1 | Observed within the Project Area. There is 1,259.8 acres of modeled foraging habitat within the Project Area. Foraging 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. | The Project Area does not support suitable cliffs and large trees for nesting, but there is suitable foraging habitat within the Project Area. The Project Area is not used for breeding by this species; therefore, impacts to habitat would not be significant. |
| *Circus cyaneus* (nesting) Northern harrier | USFWS: None CDFW: None MSCP: Not Covered County: Group 1 | 7.8 nesting; 925.8 foraging | 1.1 nesting; 515.9 foraging | Observed foraging; moderate potential to nest within the Project Area. There is 7.8 acres of modeled nesting habitat and 925.8 acres of modeled foraging habitat within the Project Area. Nesting modeled habitat for this species includes cismontane alkali marsh. Foraging modeled habitat for this species includes cismontane alkali marsh, coastal sage scrub, disturbed coastal sage scrub, mulefat scrub, oak riparian forest, and non-native grassland. | Northern harrier is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of northern harrier habitat to the 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. |
| *Elanus leucurus* White-tailed kite | USFWS: None CDFW: FP MSCP: Not Covered County: Group 1 | 124.6 | 84.2 | Observed within the Project Area. There is 124.6 acres of modeled foraging habitat within the Project Area. Foraging modeled habitat for this species includes cismontane alkali marsh, eucalyptus woodland, mulefat scrub, oak riparian forest, and non-native grassland. | The Project Area does not support habitat for nesting, but there is a minimal amount of suitable foraging habitat within the Project Area. A portion of the foraging area would be preserved. In addition, there is likely more suitable foraging habitat outside of the Project Area and |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | | | | | closer to suitable nesting habitat. Thus, direct impacts to this species would be reduced to less than significant. |
| *Eremophila alpestris actia* California horned lark | USFWS: None CDFW: WL MSCP: Not Covered County: Group 2 | 947.6 | 534.5 | Observed within the Project Area. There is 947.6 acres of modeled nesting/foraging habitat within the Project Area. Nesting and foraging modeled habitat for this species includes cismontane alkali marsh, coastal sage scrub, disturbed coastal sage scrub, disturbed habitat, mulefat scrub, and non-native grassland. | California horned lark is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of California horned lark habitat to the 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. |
| *Lanius ludovicianus* (nesting) Loggerhead shrike | USFWS: BCC CDFW: SSC MSCP: Not Covered County: Group 1 | 943.5 | 534.4 | Observed within the Project Area. There is 943.5 acres of modeled nesting/foraging habitat within the Project Area. Nesting and foraging modeled habitat for this species includes coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, and non-native grassland. | Loggerhead shrike is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of loggerhead shrike habitat to the 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. |
| *Polioptila californica californica* Coastal California gnatcatcher | USFWS: FT CDFW: SSC MSCP: Covered County: Group | 1,113.7 | 682.6 | Observed within the Project Area. There is 1,113.7 acres of modeled nesting/foraging habitat within the Project Area. Nesting and foraging modeled habitat for this species | Conservation provided through the Otay Ranch RMP and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | 1 | | | includes chamise chaparral, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, mulefat scrub, and southern mixed chaparral. | covered sensitive species and reduce impacts to less than significant. The Proposed Project provides for the preservation of habitat surrounding known locations of the species. |
| *Sialia mexicana* Western bluebird | USFWS: None CDFW: None MSCP: Covered County: Group 2 | 943.4 | 533.6 | Observed within the Project Area. There is 943.4 acres of modeled foraging habitat within the Project Area. Nesting and foraging modeled habitat for this species includes coastal sage scrub, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, 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 special-status species and reduce impacts to less than significant. |
| *Tyto alba* Common barn owl | USFWS: None CDFW: None MSCP: Not Covered County: Group 2 | 947.6 | 534.5 | Observed within the Project Area. There is 947.6 acres of modeled nesting/foraging habitat within the Project Area. Nesting and foraging modeled habitat for this species includes cismontane alkali marsh, coastal sage scrub, disturbed coastal sage scrub, disturbed habitat, mulefat scrub, and non-native grassland. | Common barn owl is not a Covered Species under the MSCP Plan. However, the Proposed Project applicant's contribution of common barn owl habitat to the 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 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| *Mammals* | | | | | |
| *Antrozous pallidus* Pallid bat | 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, cismontane alkali marsh, coastal sage scrub, developed, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, open water, non-native grassland, and southern mixed chaparral. | Pallid bat is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of pallid bat habitat to the 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. |
| *Eumops perotis californicus* Western mastiff bat | 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, cismontane alkali marsh, coastal sage scrub, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, open water, non-native grassland, and southern mixed chaparral. | Western mastiff bat is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of western mastiff bat habitat to the 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. |
| *Lasiurus blossevillii* Western red bat | USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2 | 3.6 | 0.2 | High potential to occur. There is 3.6 acres of modeled habitat within the Project Area. Modeled habitat for this species includes eucalyptus woodland, and oak riparian forest. | Western red bat is not a Covered Species under the MSCP. However, the Proposed Project applicant's contribution of western red bat habitat to the Otay Ranch RMP Preserve would mitigate impacts by providing suitable habitat in a |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | | | | | configuration that preserves genetic exchange and species viability. Thus, direct impacts to this species would be reduced to less than significant. |
| *Lepus californicus bennettii* San Diego black-tailed jackrabbit | 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 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. |
| *Myotis yumanensis* Yuma myotis | 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 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 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| *Neotoma lepida intermedia* San Diego desert woodrat | 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 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. |
| *Nyctinomops macrotis* Big free-tailed bat | USFWS: None CDFW: SSC MSCP: Not Covered County: Group 2 | 1,252.0 | 784.0 | High potential to occur on site. 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 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. |
| *Odocoileus hemionus* Mule deer | 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 | 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 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | | | | coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, non-native grassland, and southern mixed chaparral. | |
| *Puma concolor* Cougar | 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. |
| *Taxidea taxus* American badger | 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* | | | | | |
| *Branchinecta sandiegonensis* San Diego fairy shrimp | USFWS: FE CDFW: None MSCP: Not Covered per County | 49 features were identified as potential to support vernal pool | 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 | 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 |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | Interpretation of *Southwest Ctr for Biological Diversity v. Bartel*, 470 F.Supp.2d 1118 (S.D. Cal. 2006).<br>County: Group 1 | 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 and are not considered vernal pools. Four features (A22, A23, A27, and D4) support San Diego fairy shrimp. | | feature within the Planning Area 19 Otay ranch RMP Preserve (Dudek 2015). 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. | 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.<br>Because the Proposed Project will not disturb or otherwise affect vernal pools/features and will 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). |
| *Danaus plexippus* Monarch | USFWS: None<br>CDFW: None<br>MSCP: Not Covered<br>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 | 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. |

**Table 2.4-10**
**Permanent Impacts to Special-Status Wildlife Species Present within the Project Area or Off-Site Improvement Area, or with High Potential to Occur**

| Species Scientific Name/ Common Name | Regulatory Status: Federal State MSCP County Group | Project Area Habitat Total | Development Footprint[a] Habitat Total Acres | Basis for Impact Evaluation | Significance Determination |
|---|---|---|---|---|---|
| | | | | near the coast. Modeled habitat for this species includes eucalyptus woodland and oak riparian forest. | |
| *Euphydryas editha quino* Quino checkerspot butterfly | 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 of the BTR). | The Proposed Project would affect suitable Quino checkerspot butterfly habitat. This impact would be significant absent mitigation (**Impact W-4**). |
| *Lycaena hermes*[b] Hermes copper | 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] Project Area Development Footprint includes both 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 Project Area Development Footprint also includes both 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.

**Table 2.4-11**
**Impacts to Vegetation Communities and Land Cover Types within Village 14 and Planning Areas 16/19 (Acres)**

| Habitat Types/Vegetation Communities (Code)[a] | | Project Area Total | Village 14 | | | | Planning Areas 16/19 | | | | Off-Site Improvement Areas | | Total Impacts | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Permanent Impacts* | | *Temporary Impacts* | | *Permanent Impacts* | | | *Temporary Impacts* | *Permanent Impacts*[c] | *Temporary Impacts* | *Permanent Impacts* | *Temporary Impacts* |
| | | | *Dev.*[b] | *Preserve*[c] | *Dev.* | *Preserve* | *Dev.* | *Preserve*[c] | *LDA*[c] | *Preserve* | | | | |
| Riparian Habitat/ Jurisdictional Aquatic Resources | Cismontane alkali marsh (including disturbed) (52310) | 7.8 | — | 0.1 | — | <0.05 | 0.8 | 0.2 | — | <0.05 | — | — | 1.1 | <0.1 |
| | Coastal and valley freshwater marsh (52410) | 0.4 | — | — | — | — | — | — | — | — | 0.1 | 0.3 | 0.1 | 0.3 |
| | Mulefat scrub (63310) | 1.0 | — | — | — | — | <0.05 | <0.05 | — | 0.1 | 0.1 | 0.2 | 0.1 | 0.3 |
| | Open water (64100) | 0.4 | — | — | — | — | 0.2 | — | — | — | — | — | 0.2 | — |
| | Southern coast live oak riparian forest (61310) | 0.7 | — | — | — | — | — | — | — | — | — | — | — | — |
| | Southern willow scrub (63320) | 0.3 | — | — | — | — | 0.2 | <0.05 | — | <0.05 | <0.05 | <0.05 | 0.2 | <0.1 |
| | Unvegetated channel (64200)[d] | 0.1 | — | — | — | — | — | — | — | — | <0.05 | 0.1 | <0.05 | 0.1 |
| *Riparian Habitat/Jurisdictional Aquatic Resources Total* | | *10.8* | — | *0.1* | — | *<0.05* | *1.1* | *0.2* | — | *0.1* | *0.2* | *0.6* | *1.6* | *0.7* |
| Sensitive Upland Communities | Granitic chamise chaparral (including disturbed) (37210) | 308.6 | 219.9 | 5.7 | 3.9 | 1.3 | — | — | — | — | 5.2 | 13.6 | 230.9 | 18.8 |
| | Granitic southern mixed chaparral (37121) | 99.2 | — | — | — | — | 8.8 | — | 1.2 | — | 2.4 | 1.9 | 12.4 | 1.9 |
| | Diegan coastal sage scrub (32500) | 711.1 | 113.3 | 0.8 | — | 1.8 | 212.4 | 1.4 | 10.4 | 2.3 | 14.2 | 14.6 | 352.5 | 18.7 |
| | Diegan coastal sage scrub (disturbed) (32500) | 93.0 | 34.2 | 2.5 | — | 3.3 | 11.0 | — | — | <0.05 | 3.3 | 6.3 | 51.0 | 9.6 |
| | Diegan coastal sage scrub – *Baccharis*-dominated (including disturbed) (32530) | 1.3 | — | — | — | — | — | — | — | — | 0.4 | 0.9 | 0.4 | 0.9 |
| | Non-native grassland (42200 | 112.2 | 32.0 | 0.2 | — | 0.1 | 34.1 | 0.3 | — | 1.0 | 3.6 | 11.4 | 70.2 | 12.5 |
| *Sensitive Upland Communities Total* | | *1,325.5* | *399.4* | *9.2* | *3.9* | *6.5* | *266.3* | *1.7* | *11.6* | *3.3* | *29.1* | *48.8* | *717.4* | *62.4* |
| **Riparian Habitat/Jurisdictional Aquatic Resources and Sensitive Upland Communities Subtotal** | | **1,336.3** | **399.4** | **9.3** | **3.9** | **6.5** | **267.4** | **1.9** | **11.6** | **3.3** | **29.3** | **49.4** | **719.0** | **63.1** |
| Non-Sensitive Communities and Land Covers | Disturbed habitat (11300) | 22.5 | 10.3 | <0.05 | — | 0.1 | 4.7 | <0.05 | — | 0.1 | 1.0 | 2.4 | 16.0 | 2.6 |
| | Eucalyptus woodland (79100) | 2.9 | — | — | — | — | — | — | — | — | — | 0.2 | — | 0.2 |
| | Urban/developed (12000) | 7.3 | 3.0 | — | — | — | 0.5 | 0.5 | — | <0.05 | 1.9 | 1.2 | 5.9 | 1.2 |
| *Non-Sensitive Communities and Land Covers Total* | | *32.7* | *13.3* | *<0.05* | — | *0.1* | *5.2* | *0.5* | — | *0.1* | *2.9* | *3.8* | *21.9* | *4.0* |
| **Total[e]** | | **1,369.0** | **412.7** | **9.3** | **3.9** | **6.6** | **272.6** | **2.4** | **11.6** | **3.4** | **32.2** | **53.2** | **740.9** | **67.1** |

a Oberbauer et al. 2008.
b Dev. = Development Footprint; includes 116.4 acres of internal HOA open space that will remain within the area to be developed.
c Fuel modification is included within the permanent impact areas. An additional 1.3 acres of impacts may be required for widening Proctor Valley Road North.
d Unvegetated stream channel is also an overlay within various vegetation communities and is therefore not fully represented in this table.
e May not total due to rounding.

**Table 2.4-12**
**Impacts to Vegetation Communities and Land Cover Types within Off-Site Improvement Areas (Acres)**

| Ownership | Off-Site Improvement Area | Habitat Types/Vegetation Communities | Permanent Impacts | Temporary Impacts | Total Impacts[a] |
|---|---|---|---|---|---|
| City of Chula Vista (Rolling Hills Ranch) | Proctor Valley Road South | Urban/developed | 0.5 | 0.4 | 0.8 |
| | | Diegan coastal sage scrub | 2.0 | 2.0 | 4.0 |
| | | Eucalyptus woodland | — | 0.1 | 0.1 |
| | | Coastal and valley freshwater marsh | 0.1 | 0.3 | 0.4 |
| | | Mulefat scrub | <0.1 | <0.1 | <0.1 |
| | | *City of Chula Vista Total* | *2.6* | *2.8* | *5.4* |
| City of San Diego (in Cornerstone Lands) | Proctor Valley Road South[b] | Urban/developed | 0.3 | 0.3 | 0.6 |
| | | Diegan coastal sage scrub | 3.0 | 4.1 | 7.0 |
| | | Diegan coastal sage scrub (disturbed) | 3.3 | 6.3 | 9.6 |
| | | Diegan coastal sage scrub – *Baccharis*-dominated | 0.1 | 0.6 | 0.7 |
| | | Diegan coastal sage scrub – *Baccharis*-dominated (disturbed) | 0.3 | 0.3 | 0.6 |
| | | Disturbed habitat | 0.6 | 0.9 | 1.6 |
| | | Eucalyptus woodland | — | <0.1 | <0.1 |
| | | Mulefat scrub | 0.1 | 0.2 | 0.3 |
| | | Non-native grassland | 2.6 | 7.4 | 10.0 |
| | | Granitic southern mixed chaparral | 1.4 | 1.7 | 3.2 |
| | | Unvegetated channel | <0.1 | 0.1 | 0.1 |
| | | *City of San Diego (Cornerstone Lands) Total* | *11.6* | *22.0* | *33.7* |
| Private Property | Proctor Valley Road South | Diegan Coastal sage scrub | 0.2 | 0.3 | 0.5 |
| | | Non-native grassland | 0.1 | — | 0.1 |
| | | Disturbed habitat | <0.1 | 0.3 | 0.3 |
| | | *Private Property Total* | *0.2* | *0.6* | *0.8* |
| County of San Diego Road Easements | Proctor Valley Road North | Urban/developed | 0.1 | 0.1 | 0.2 |
| | | Diegan coastal sage scrub (disturbed) | <0.1 | <0.1 | <0.1 |
| | | Non-native grassland | <0.1 | — | <0.1 |
| | | *County of San Diego Road Easements Lands Total* | *0.2* | *0.1* | *0.3* |
| CDFW-Owned Land in Otay Ranch | Planning Areas 16/19 Roads | Diegan coastal sage scrub | 8.2 | 6.5 | 14.7 |
| | | Granitic southern mixed chaparral | 0.9 | 0.2 | 1.1 |
| | | *Planning Areas 16/19 Roads Subtotal* | *9.1* | *6.7* | *15.8* |
| | Proctor Valley Road Central | Granitic chamise chaparral | 4.0 | 8.4 | 12.5 |
| | | Disturbed habitat | <0.1 | 0.1 | 0.1 |
| | | Eucalyptus woodland | — | 0.1 | 0.1 |
| | | *Proctor Valley Road Central Subtotal* | *4.1* | *8.6* | *12.7* |
| | Proctor Valley Road North | Granitic chamise chaparral | 1.1 | 5.2 | 6.3 |
| | | Urban/developed | 1.1 | 0.4 | 1.5 |
| | | Diegan coastal sage scrub | 0.8 | 1.7 | 2.6 |

## Table 2.4-12
## Impacts to Vegetation Communities and Land Cover Types within Off-Site Improvement Areas (Acres)

| Ownership | Off-Site Improvement Area | Habitat Types/Vegetation Communities | Permanent Impacts | Temporary Impacts | Total Impacts[a] |
|---|---|---|---|---|---|
| | | Disturbed habitat | 0.3 | 1.2 | 1.5 |
| | | Non-native grassland | 0.9 | 3.9 | 4.8 |
| | | Southern willow scrub | <0.1 | <0.1 | 0.1 |
| | *Proctor Valley Road North Total* | | *4.4* | *12.4* | *16.8* |
| *CDFW-Owned Land Total* | | | *17.5* | *27.7* | *45.2* |
| **Total[a]** | | | **32.1** | **53.2** | **85.4** |

[a] May not total due to rounding. Does not include the 0.5 acres of impacts that may be required for widening Proctor Valley Road North.
[b] Includes impacts related to an off-site sewer pump station adjacent to the road.

## Table 2.4-13
## Summary of Proposed Project Impacts

| Habitat Types/Vegetation Communities | Code[a] | Project Area Total (acres) | Development Footprint[b] (acres) | |
|---|---|---|---|---|
| | | | *Perm.* | *Temp.* |
| *Riparian Habitat/Jurisdictional Aquatic Resources* | | | | |
| Cismontane alkali marsh (including disturbed) | 52310 | 7.8 | 1.0 | 0.1 |
| Coastal and valley freshwater marsh | 52410 | 0.4 | 0.1 | 0.3 |
| Mulefat scrub | 63310 | 1.0 | 0.1 | 0.3 |
| Southern coast live oak riparian forest | 61310 | 0.7 | — | — |
| Open water | 64100 | 0.4 | 0.2 | — |
| Southern willow scrub | 63320 | 0.3 | 0.2 | <0.1 |
| Unvegetated channel | 64200 | 0.1 | <0.05 | 0.1 |
| *Subtotal of Aquatic Resources* | | 10.8 | *1.6* | *0.7* |
| *Sensitive Upland Communities* | | | | |
| Granitic chamise chaparral (including disturbed) | 37210 | 308.6 | 230.9 | 18.8 |
| Granitic southern mixed chaparral | 37121 | 99.2 | 12.4 | 1.9 |
| Diegan coastal sage scrub | 32500 | 711.1 | 352.5 | 18.7 |
| Diegan coastal sage scrub (disturbed) | 32500 | 93.0 | 51.0 | 9.6 |
| Diegan coastal sage scrub – *Baccharis* dominated (including disturbed) | 32530 | 1.3 | 0.4 | 0.9 |
| Non-native grassland | 42200 | 112.2 | 70.2 | 12.5 |
| *Subtotal of Sensitive Upland Communities* | | 1,325.5 | *717.4* | *62.4* |
| *Non-Sensitive Communities and Land Covers* | | | | |
| Urban/developed | 12000 | 7.3 | 5.9 | 1.2 |
| Disturbed habitat | 11300 | 22.5 | 16.0 | 2.6 |

## Table 2.4-13
## Summary of Proposed Project Impacts

| Habitat Types/Vegetation Communities | Code[a] | Project Area Total (acres) | Development Footprint[b] (acres) | |
|---|---|---|---|---|
| | | | *Perm.* | *Temp.* |
| Eucalyptus woodland | 79100 | 2.9 | — | 0.2 |
| *Subtotal of Non-Sensitive Communities and Land Covers* | | *32.7* | 21.9 | 4.0 |
| **Grand Total[C]** | | **1,369.0** | **740.9** | **67.1** |

[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, HOA open space not considered for Conserved Open Space, impacts within the Otay Ranch RMP Preserve, and off-site improvement areas. An additional 1.3 acres of impacts may be required for widening Proctor Valley Road North.

[c] May not total due to rounding.

## Table 2.4-14
## 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.

## Table 2.4-15
## 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.

## Table 2.4-16
## 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 | 0.22 |
| 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* | | | | | | | | | | | | |

**Table 2.4-16**
**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* |
| Unvegetated channel | — | — | 0.03 | 0.24 | 0.01 | 0.01 | — | — | 0.05 | 0.08 | 0.09 | 0.33 |
| *Subtotal* | — | — | *0.03* | *0.24* | *0.01* | *0.01* | — | — | *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

**Table 2.4-17**
**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 was 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 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 of impact 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-11). 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 |

**Table 2.4-17**
**Improvements to Proctor Valley Road – MSCP County Subarea Plan Consistency Analysis**

| County of San Diego Requirements* | Consistency Analysis |
|---|---|
| | 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) would mitigate for these impacts through restoring temporarily impacted resources to pre-project conditions, and coordination 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 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. | 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 14 individuals of San Diego marsh-elder and 36 individuals of Munz's sage. The road improvements would not impact any rare narrow endemic animal species. The alignment was revised to avoid impacts to a vernal pools containing San Diego fairy shrimp. |

* Source: County of San Diego 1997

**Table 2.4-18**
**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. |

**Table 2.4-18**
**Summary of Siting Criteria for City of San Diego**
**Off-Site Portion of Proctor Valley Road and Associated Utilities**

| Siting Criteria* | Analysis |
|---|---|
| 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 11.1 acres of permanent impacts would be mitigated per the mitigation ratios identified in Table 2.4-11. 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 2.4-16). 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 BI-27). 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 crossing 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.<br><br>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 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 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/ | The MSCP City of San Diego 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 Preserve system "is not precluded based on the City's Cornerstone Lands Conservation Bank Agreement" (City of San Diego 1997). |

**Table 2.4-18**
**Summary of Siting Criteria for City of San Diego**
**Off-Site Portion of Proctor Valley Road and Associated Utilities**

| Siting Criteria* | Analysis |
|---|---|
| emergency access roads | |
| 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

**Table 2.4-19**
**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 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 still result in impacts to jurisdictional aquatic resources. |

**Table 2.4-19**
**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) |
|---|---|
| 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 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.<br><br>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 2.4.3.1, 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 (see Appendix A to the BTR). As part of this agreement, no further mitigation for narrow endemic species or other Cover Species, including Otay tarplant, would be required within this easement area. Therefore, direct off-site impacts to Otay tarplant (a narrow endemic species) individuals would not be significant.<br><br>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. |

* City of Chula Vista 2003

**Table 2.4-20**
**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.* | | | | | | |
| 2.4.3.1 | 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 |
| 2.4.3.1 | BI-7 | Habitat for Special-Status Wildlife Species | Temporary Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-6 (nesting bird survey)<br>M-BI-12 (restoration of temporary impacts)<br>M-BI-18 (noise) | Less than significant | 4.1.A<br>4.1.B |
| 2.4.3.1 | BI-2 | Habitat for Special-Status Wildlife Species | Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-3 (habitat conveyance and preservation)<br>M-BI-4 (biological open space easement)<br>M-BI-5 (permanent fencing and signage)<br>M-BI-6 (nesting bird survey)<br>M-BI-13 (burrowing owl preconstruction) | Less than significant | 4.1.A<br>4.1.B |
| 2.4.3.1 | BI-6 | Golden Eagle | Permanent Direct | M-BI-3 (habitat conveyance and preservation)<br>M-BI-4 (biological open space easement)<br>M-BI-5 (permanent fencing and signage) | Less than significant | 4.1.E |
| 2.4.3.1 | BI-1 | Quino Checkerspot Butterfly Suitable Habitat | Permanent Direct | M-BI-3 (habitat conveyance and preservation)<br>M-BI-4 (biological open | Less than significant | 4.1.A |

**Table 2.4-20**
**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* |
|---|---|---|---|---|---|---|
| | | | | space easement)<br>M-BI-5 (permanent fencing and signage)<br>M-BI-8 (Quino checkerspot butterfly take authorization and )<br>M-BI-9 (Quino checkerspot butterfly habitat preservation)<br>M-BI-10 (Quino checkerspot butterfly management/enhancement plan) | | |
| 2.4.3.1 | BI-8 | Direct Loss of Birds under the MBTA | Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-6 (nesting bird survey) | Less than significant | 4.1.A<br>4.1.B |
| 2.4.3.1 | BI-3 | Hermes Copper Butterfly Suitable Habitat | Permanent Direct | M-BI-3 (habitat conveyance and preservation)<br>M-BI-4 (biological open space easement)<br>M-BI-5 (permanent fencing and signage) | Less than significant | 4.1.A |
| 2.4.3.1 | BI-11 | Special-Status Wildlife Species | Temporary Indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-14 (SWPPP)<br>M-BI-15 (erosion and runoff control)<br>M-BI-16 (prevention of invasive plant species)<br>M-BI-17 (prevention of chemical pollutants)<br>M-BI-18 (noise) | Less than significant | 4.1.H<br>4.1.L |
| 2.4.3.1 | BI-12 | Special-Status Wildlife Species | Permanent Indirect | M-BI-5 (permanent fencing and signage)<br>M-BI-14 (SWPPP)<br>M-BI-15 (erosion and runoff control) | Less than significant | 4.1.H |

**Table 2.4-20**
**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-16 (prevention of invasive plant species)<br>M-BI-18 (noise)<br>M-BI-19 (fire protection)<br>M-BI-20 (lighting) | | |
| 2.4.3.1 | BI-4 | Special-Status Plant Species (County List A and B Species) | Temporary Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing) | Less than significant | 4.1.B |
| 2.4.3.1 | BI-5 | Special-Status Plant Species (County List A and B Species) | Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-3 (habitat conveyance and preservation)<br>M-BI-4 (biological open space easement)<br>M-BI-11 (biological resource salvage plan) | Less than significant | 4.1.B |
| 2.4.3.1 | BI-9 | Special-Status Plant Species | Temporary Indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-14 (SWPPP)<br>M-BI-15 (erosion and runoff control)<br>M-BI-17 (prevention of chemical pollutants) | Less than significant | 4.1.H |
| 2.4.3.1 | BI-10 | Special-Status Plant Species | Permanent Indirect | M-BI-5 (permanent fencing and signage)<br>M-BI-14 (SWPPP)<br>M-BI-15 (erosion and runoff control)<br>M-BI-16 (prevention of invasive plant species)<br>M-BI-17 (prevention of chemical pollutants)<br>M-BI-19 (fire protection) | Less than significant | 4.1.H |

**Table 2.4-20**
**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 4.2:*** *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.* | | | | | | |
| 2.4.3.2 | BI-13 | Sensitive Vegetation Communities – Project Area | Temporary Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-12 (restoration of temporary impacts)<br>M-BI-21 (federal and state agency permits | Less than significant | 4.2.A |
| 2.4.3.2 | BI-14 | Sensitive Vegetation Communities – Village 14 and Planning Areas 16/19 | Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-3 (habitat conveyance and preservation)<br>M-BI-4 (biological open space easement)<br>M-BI-5 (permanent fencing and signage)<br>M-BI-21 (federal and state agency permits) | Less than significant | 4.2.A |
| 2.4.3.2 | BI-15 | City of San Diego MSCP Cornerstone Lands | Temporary and Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-4 (biological open space easement)<br>M-BI-12 (restoration of temporary impacts)<br>M-BI-21 (federal and state agency permits | Less than significant | 4.2.A |
| 2.4.3.2 | BI-16 | Lands Within City of Chula Vista | Temporary and Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-12 (restoration of temporary impacts)<br>M-BI-21 (federal and state | Less than significant | 4.2.A |

**Table 2.4-20**
**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* |
|---|---|---|---|---|---|---|
| | | | | agency permits) | | |
| 2.4.3.2 | BI-17 | Off-Site Private Lands | Temporary and Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-12 (restoration of temporary impacts) | Less than significant | 4.2.A |
| 2.4.3.2 | BI-18 | County of San Diego Road Easement | Temporary and Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-12 (restoration of temporary impacts) | Less than significant | 4.2.A |
| 2.4.3.2 | BI-19 | Off-Site CDFW-Owned Lands | Temporary and Permanent Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-3 (habitat conveyance and preservation)<br>M-BI-12 (restoration of temporary impacts)<br>M-BI-21 (federal and state agency permits | Less than significant | 4.2.A |
| 2.4.3.2 | BI-24 | Sensitive Vegetation Communities – Project Area | Temporary Indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-4 (biological open space easement)<br>M-BI-14 (SWPPP)<br>M-BI-15 (erosion and runoff control)<br>M-BI-17 (prevention of chemical pollutants)<br>M-BI-21 (federal and state agency permits | Less than significant | 4.2.D |

**Table 2.4-20**
**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* |
|---|---|---|---|---|---|---|
| 2.4.3.2 | BI-25 | Sensitive Vegetation Communities – Project Area | Permanent Indirect | M-BI-5 (permanent fencing and signage<br>M-BI-14 (SWPPP)<br>M-BI-15 (erosion and runoff control)<br>M-BI-16 (prevention of invasive plant species)<br>M-BI-17 (prevention of chemical pollutants)<br>M-BI-19 (fire protection) | Less than significant | 4.2.D |
| 2.4.3.2 | BI-20 | Jurisdictional Aquatic Resources – Project Area | Temporary Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-12 (restoration of temporary impacts)<br>M-BI-21 (federal and state agency permits | Less than significant | 4.2.B |
| 2.4.3.2 | BI-21 | Jurisdictional Aquatic Resources – Project Area | Permanent Direct | M-BI-21 (federal and state agency permits | Less than significant | 4.2.B |
| 2.4.3.2 | BI-22 | Jurisdictional Aquatic Resources – Project Area | Temporary Indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-14 (SWPPP)<br>M-BI-15 (erosion and runoff control)<br>M-BI-17 (prevention of chemical pollutants) | Less than significant | 4.2.B |
| 2.4.3.2 | BI-23 | Jurisdictional Aquatic Resources – Project Area | Permanent Indirect | M-BI-5 (permanent fencing and signage<br>M-BI-14 (SWPPP)<br>M-BI-15 (erosion and runoff control)<br>M-BI-16 (prevention of invasive plant species)<br>M-BI-17 (prevention of chemical pollutants) | Less than significant | 4.2.B |

**Table 2.4-20**
**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 4.3:*** *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 BI-20 through BI-23 | | | | | | |
| ***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.* | | | | | | |
| 2.4.3.4 | BI-26 | Habitat Connectivity and Wildlife Corridors | Temporary Direct | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-12 (restoration of temporary impacts) | Less than significant | 4.4.A |
| 2.4.3.4 | BI-27 | Habitat Connectivity and Wildlife Corridors | Temporary Indirect | M-BI-1 (biological monitoring)<br>M-BI-2 (temporary construction fencing)<br>M-BI-18 (noise)<br>M-BI-20 (lighting) | Less than significant | 4.4.D |
| 2.4.3.4 | BI-28 | Habitat Connectivity and Wildlife Corridors | Permanent Indirect | M-BI-3 (habitat conveyance and preservation)<br>M-BI-4 (biological open space easement)<br>M-BI-5 (permanent fencing and signage)<br>M-BI-18 (noise)<br>M-BI-20 (lighting) | Less than significant | 4.4.D |
| ***Guideline 4.5:*** *The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state HCP.* | | | | | | |
| None | | | | | | |

* Source: County of San Diego 2010a

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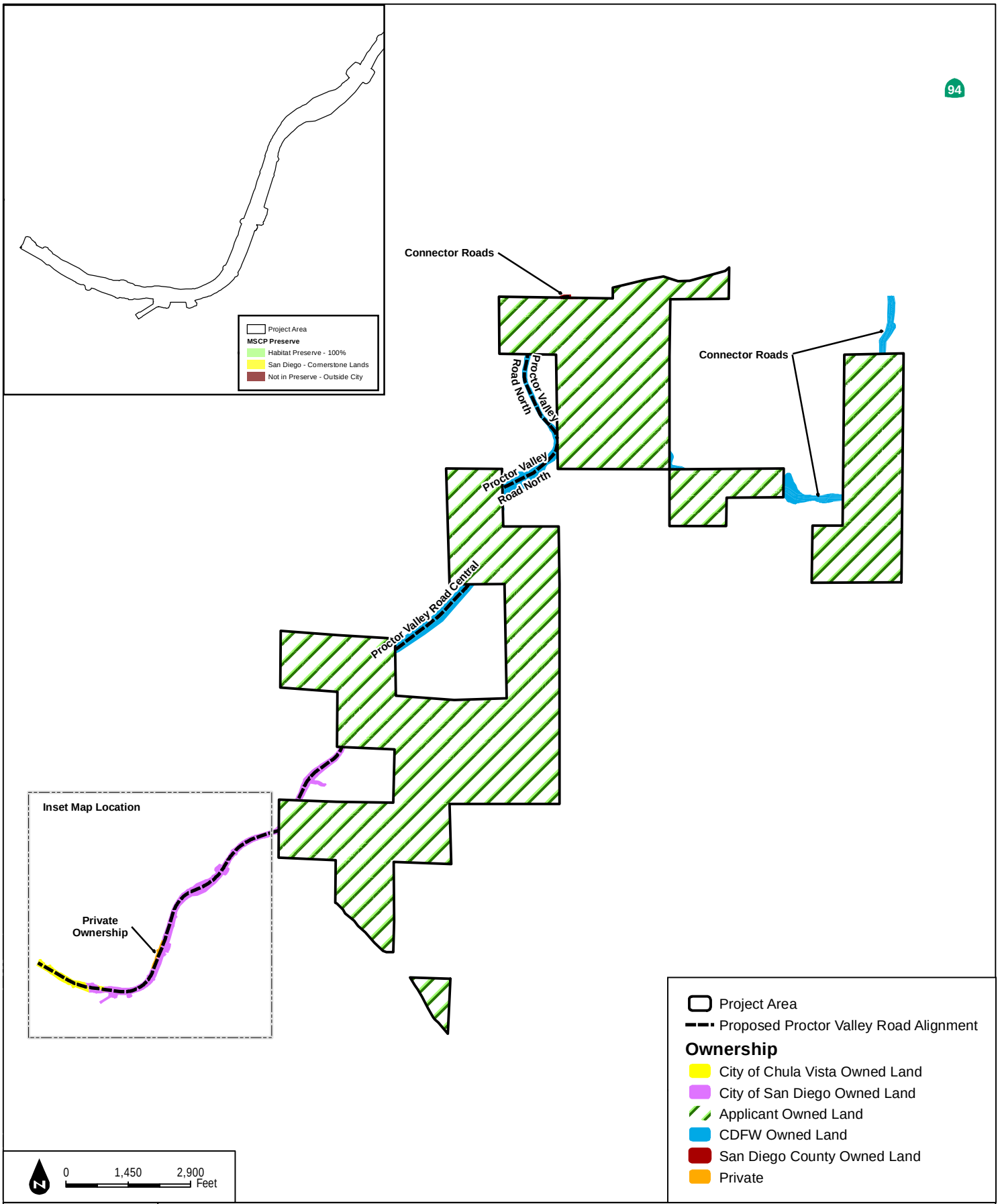


SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 2.4-1

Project Area Ownership

Otay Ranch Village 14 and Planning Areas 16/19

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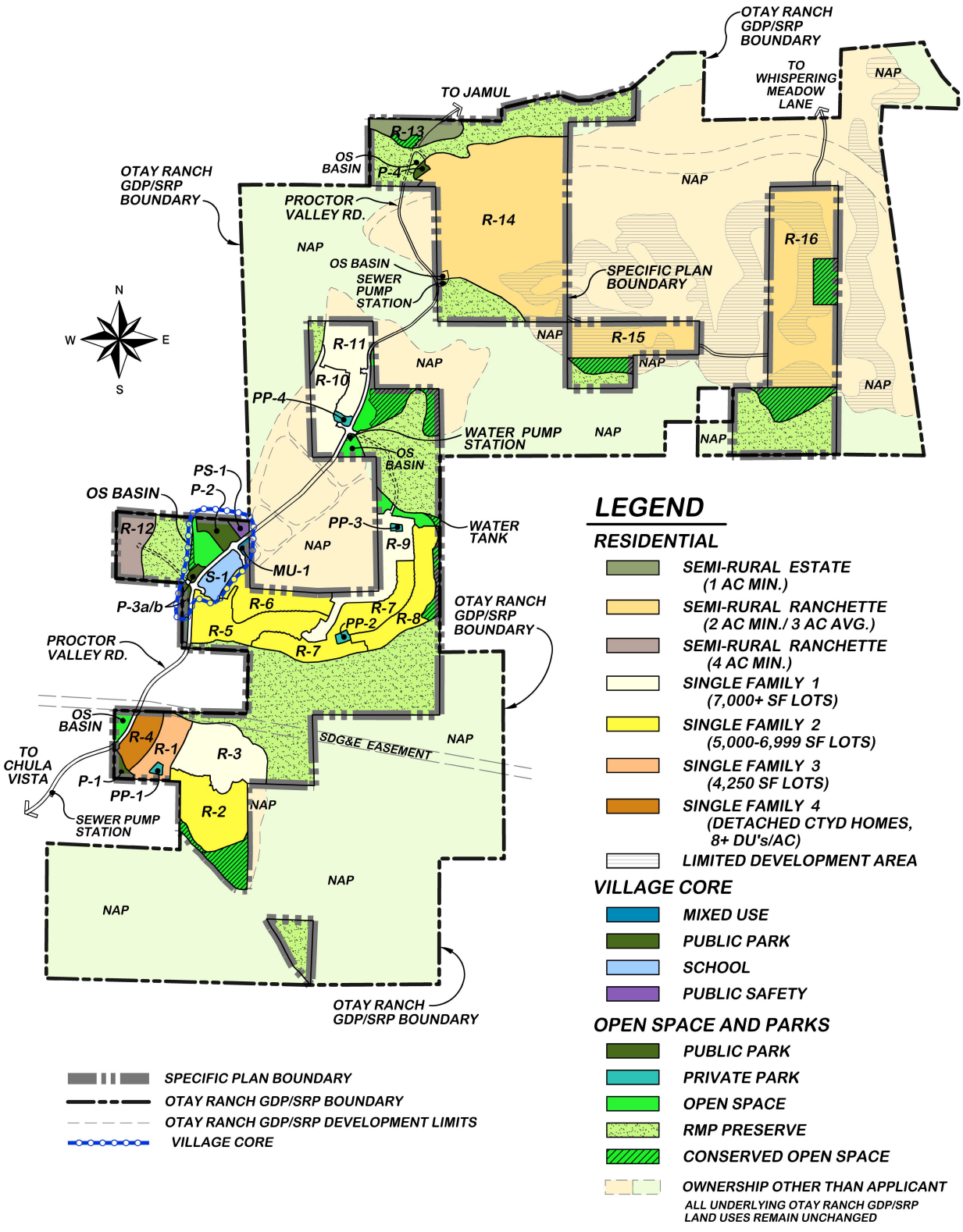


DUDEK

SOURCE: Hunsaker 2018

FIGURE 2.4-2

## Proctor Valley Site Utilization Plan

Otay Ranch Village 14 and Planning Areas 16/19

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