Biological Resources Technical Memorandum for the Proposed Project Amendment – Otay Ranch Village 14 and Planning Areas 16/19

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Acronyms and Abbreviations

Acronym/Abbreviation	Description
ACOE	U.S. Army Corps of Engineers
BMO	Biological Mitigation Ordinance
BRCA	Biological Resource Core Area
CDFW	California Department of Fish and Wildlife
EIR	Environmental Impact Report
MSCP	Multiple Species Conservation Program
Otay Ranch GDP/SRP	Otay Ranch City of Chula Vista General Development Plan/County of San Diego Otay Subregional Plan Volume II
POM	Preserve Owner/Manager
RMP	Resource Management Plan
RWQCB	Regional Water Quality Control Board
USFWS	U.S. Fish and Wildlife Service
VPHCP	Vernal Pool Habitat Conservation Plan

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1 Introduction

This Memorandum evaluates proposed changes to the Otay Ranch Village 14 and Planning Areas 16/19 Project that was approved by the San Diego County Board of Supervisors on June 26, 2019 (Approved Project). The changes to the Approved Project would reconfigure the development footprint to consolidate development in Village 14; add 147 units, for a total of 1,266 residential units; and reduce impacts by approximately 230 acres, to 579 acres (the Proposed Project Amendment). Figure 1, Regional Location, shows the regional location of the Approved Project Area and the Proposed Amendment Project Area, in the County of San Diego (County).

An Environmental Impact Report (EIR) was prepared for the Approved Project and was certified by the Board on June 26, 2019. The Final EIR analyzed the potential impacts of the Approved Project. The Final EIR also analyzed potential impacts associated with the EIR Land Exchange Alternative, which was one of the alternatives to the Approved Project. The Final EIR is incorporated herein by reference; the results are summarized in Chapter 5, Summaries; and mitigation measures are described in Chapter 7.

The Final EIR analyzed the Approved Project's potential impacts to biological resources in Section 2.4. This Biological Resources Technical Memorandum (Technical Memorandum) was prepared for the Proposed Project Amendment. The purpose of this analysis is to evaluate whether, and to what extent, the potential impacts of the Proposed Project Amendment to biological resources differ from those of the Approved Project and the EIR Land Exchange Alternative. This Technical Memorandum includes the following chapters: (1) Introduction, (2) Background, (3) Proposed Project Amendment Description and Summary of Amendment/Revisions, (4) Proposed Project Amendment Analysis, (5) Summaries (Approved Project, EIR Land Exchange Alternative, and Proposed Project Amendment), (6) Development Footprint Comparisons, (7) Mitigation Measures, (8) Summary of Project Impacts and Mitigation, and (9) References.

Note that the while the EIR Land Exchange Alternative and the Proposed Project Amendment both contemplate exchanges of land with California Department of Fish and Wildlife (CDFW), they differ in important respects.

Dudek prepared the following technical reports for the certified Final EIR, which are incorporated herein by reference:

- Final EIR Section 2.4, Appendix 2.4-1, Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19, dated September 2018
- Final EIR Chapter 4, Appendix 4.1-4, Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19 Land Exchange Alternative, dated February 2018

Any and all Dudek, Helix, or H.T. Harvey memoranda or reports; County of San Diego response to comments; or applicant-prepared responses included in the Final EIR administrative record are incorporated herein by reference.

In addition, a Biological Equivalency Analysis has been prepared for the proposed land exchange between the owner/applicant and CDFW, which is contemplated as part of the Proposed Project Amendment. This proposed land exchange is associated with the Dispute Resolution Agreement between the owner/applicant and CDFW, the U.S. Fish and Wildlife Service (USFWS), and the County. The Biological Equivalency Analysis, provided as Appendix A, describes, in detail, the parcels that would be conserved, either by being designated as part of the Multiple Species Conservation Program (MSCP)/Otay Ranch Resource Management Plan (RMP) or by being subject to a conservation easement. The Biological Equivalency Analysis is incorporated herein by reference to identify the net conservation benefits associated with the implementation of the Dispute Resolution Agreement process.

In support of the proposed land exchange between the owner/applicant and CDFW, CDFW has prepared a Land Conversion Evaluation (LCE), which assessed the biological impacts and benefits of the land exchange contemplated under the Proposed Project Amendment. The LCE referred to several years of biological studies conducted on the state-owned parcels that were included in the Approved Project Final EIR's analysis of the Land Exchange Alternative. Upon review of the LCE, it has been concluded that the LCE did not include substantial new information that showed the Proposed Project Amendment would result in new or significantly greater impacts than analyzed in the Approved Project Final EIR.

Terminology

The following terminology is used in this Technical Memorandum.

Approved Project: The project described in Otay Ranch Village 14 and Planning Areas 16/19 Tentative Map No. 5616, Specific Plan No. 16-002, and the certified EIR No. 16-19-006, which the County of San Diego approved on June 26, 2019. The Approved Project permits 1,119 dwelling units on a Project Area of approximately 1,369.0 acres. The actual Development Footprint of the Approved Project is 809.0 acres.

Biological Study Area: The Biological Study Area discussed within this Biological Resources Technical Memorandum combines the extent of the "Project Area" defined for the Approved Project and the "Project Area" for the EIR Land Exchange Alternative. Therefore, the Biological Study Area discussed in this memorandum is larger than the Proposed Project Amendment Project Area (defined below). The total Biological Study Area, approximately 2,900 acres, covers the entire Proposed Project Amendment Project Area. The Biological Study Area includes land owned by the Project owner/applicant as well as land owned by the CDFW. The Biological Study Area also includes a 100-foot buffer from the Proposed Project Amendment Project Area as required by the County of San Diego. The full extent of biological resources mapped during the evaluation of the Approved Project and the EIR Land Exchange Alternative can be found within the technical reports prepared for the Approved Project and the alternative.

Conserved Open Space: Conserved Open Space refers to 24.5 acres of land within the Proposed Project Amendment Project Area, which, while designated in the Otay Ranch City of Chula Vista General Development Plan/County of San Diego Otay Subregional Plan Volume II (Otay Ranch GDP/SRP) for residential uses within Village 14 and Planning Areas 16/19, would not be developed as part of the Proposed Project Amendment. Instead, the Conserved Open Space would be preserved on site and be (1) added to the Otay Ranch RMP Preserve (through a future RMP Amendment), (2) managed under a separate RMP, or (3) used to mitigate impacts to the City of San Diego MSCP Cornerstone Lands. The Conserved Open Space areas are located adjacent to Otay Ranch RMP Preserve and would be conserved by recording a biological open space easement over the land.

Development Footprint: The areas where a given project will cause permanent or temporary ground disturbance. The Development Footprint includes all on-site development, off-site improvements, and impacts resulting from infrastructure and other allowable uses within the Otay Ranch RMP Preserve.

EIR Land Exchange Alternative: The project alternative identified as the "Land Exchange Alternative" in Chapter 4 of the certified Final EIR. This Land Exchange Alternative contemplated a land exchange with CDFW and would involve development of 1,530 units on a Project Area of approximately 2,387.6 acres, with a Development Footprint of 658.3 acres.

Off-Site Improvements: Off-site improvements total approximately 40.1 acres and include Proctor Valley Road, wet and dry utilities, drainage facilities, trails, an off-site sewer pump station in the southern reach of Proctor Valley Road, and off-site sewer facilities to connect to the Salt Creek Interceptor, as planned since 1994.

Otay Ranch Resource Management Plan Preserve: The Otay Ranch RMP Preserve includes areas defined as Preserve in the MSCP County of San Diego Subarea Plan Implementing Agreement (USFWS et al. 1998), which defines the County's required contribution to the MSCP Preserve. The Otay Ranch RMP provides for the conservation and management of the entire 11,375-acre Otay Ranch RMP Preserve. The Implementing Agreement states that the required mitigation for Otay Ranch includes "protection of the areas identified as preserved in the boundaries of the Otay Ranch project including approximately 11,375 acres" of the Otay Ranch RMP Preserve (USFWS et al. 1998). Therefore, the Otay Ranch RMP Preserve is a subset of the MSCP Preserve.

Project Area: The total land area for the Proposed Project Amendment as contemplated in the proposed land exchange between Project owner/applicant and CDFW.[1] The Project Area consists of approximately 1,283.6 acres currently owned by the Applicant, 219.4 acres currently owned by CDFW, and approximately 40.1 acres of off-site improvements, for a total of 1,543 acres.

Proposed Project Amendment: The Proposed Project Amendment reflects proposed changes to the Approved Project, which would add 147 units for a total of 1,266 residential units and would reduce the Development Footprint by approximately 230 acres, to a total of 579 acres, within a Project Area of 1,543 acres, as shown on Figure 2, Site Utilization Plan. The Proposed Project Amendment includes a Revised Tentative Map and Specific Plan Amendment. As contemplated in the Dispute Resolution Agreement, the Proposed Project Amendment assumes and will require a County-initiated amendment to the MSCP County Subarea Plan. Because the amendment to the MSCP County Subarea Plan will be initiated by the County, it is not part of the Proposed Project Amendment.

PV1 and PV3: PV1 and PV3 are areas of the Approved Project located in Village 14, as shown on Figure 3, Proposed Land Exchange.

Revised Tentative Map: The Revised Tentative Map reflects revisions to the June 26, 2019, Approved Tentative Map No. 5616 that are necessary to process and implement the land exchange with CDFW and the Proposed Project Amendment in the County.

Specific Plan Amendment: The Specific Plan Amendment reflects revisions to the June 26, 2019, Approved Specific Plan No. 16-002 that are necessary to process and implement the land exchange with CDFW and the Proposed Project Amendment in the County.

[1] As described in Chapter 4, the land exchange necessary to implement the Proposed Project Amendment must be approved by the California Wildlife Conservation Board.

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2 Background

The Proposed Project Amendment Project Area comprises approximately 1,543 acres of undeveloped land within the Proctor Valley area of the 23,000-acre Otay Ranch master planned community. The Proposed Project Amendment reflects proposed changes to the Approved Project, including a proposed land exchange with CDFW.

On June 27, 2019, the owner/applicant of the Approved Project entered into a Dispute Resolution Agreement with CDFW, USFWS, and the County. Pursuant to this agreement, the owner/applicant would seek a land exchange with CDFW through a process overseen by the California Wildlife Conservation Board. The proposed land exchange, if approved by the Wildlife Conservation Board, would require the owner/applicant to (1) transfer 147.3 acres in Village 14 and 192.4 acres in Planning Area 16 to CDFW and (2) record a conservation easement over 191.5 acres in Planning Area 16. In exchange, CDFW would transfer 219.4 acres in Village 14 to the owner/applicant (Figure 3). The Proposed Project Amendment would then be implemented on the lands within the applicant's ownership, including those received via the Wildlife Conservation Board land exchange. Because the Proposed Project Amendment assumes the above-described land exchange, it would result in a different development footprint than the Approved Project's development footprint. Therefore, a Specific Plan Amendment to the approved Village 14 and Planning Areas 16/19 Specific Plan and a Revised Tentative Map are required processes for the Proposed Project Amendment.

While the Proposed Project Amendment and EIR Land Exchange Alternative both contemplate exchanges of land with the CDFW, the Development Footprints and other aspects differ. It is important to note that the Development Footprint of the Proposed Project Amendment was assessed in the certified Final EIR as part of the Approved Project Development Footprint and as part of the EIR Land Exchange Alternative Development Footprint.

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3 Proposed Project Amendment Description and Summary of Amendment/Revisions

The Proposed Project Amendment proposes 1,266 residential units within a Project Area of 1,543 acres (Figure 4, Project Area). The Proposed Project Amendment Development Footprint would be approximately 578.6 acres, which would consistent of approximately 513.1 acres within Otay Ranch Village 14, 25.2 acres within Otay Ranch Planning Areas 16/19, and 40.1 acres of off-site improvements (i.e., Proctor Valley Road). Of the 1,266 residential units, 1,253 units would be located in Village 14 (consistent with the Otay Ranch GDP/SRP) and 13 units would be located in Planning Area 19 (consistent with the Otay Ranch GDP/SRP). The Proposed Project Amendment is depicted on Figure 2.

As described above, the Proposed Project Amendment would also include a land exchange between the owner/applicant and CDFW, which would require the owner/applicant to transfer 339.7 acres to CDFW and record a conservation easement over 191.5 acres; in exchange, CDFW would transfer 219.4 acres in Village 14 to the owner/applicant to create a consolidated Development Footprint. The proposed land exchange between the applicant and CDFW is depicted on Figure 4 and described in detail in Attachment A. As defined above, the Proposed Project Amendment requires a Specific Plan Amendment and Revised Tentative Map, which must be approved by the County. The Revised Tentative Map would replace that approved Tentative Map No. 5616, approved by the County on June 26, 2019. The Specific Plan Amendment would amend the Specific Plan No. 16-002 to reflect the Proposed Project Amendment, including the Revised Tentative Map and the land exchange with CDFW.

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4 Proposed Project Amendment Analysis

As part of the 2019 Final EIR preparation process, numerous biological surveys were conducted for both the Approved Project and the EIR Land Exchange Alternative (Dudek 2018a and 2018b). The combined area covered by these biological surveys is referred to herein as the Biological Study Area (approximately 2,900 acres). As shown on Figure 4, the Development Footprint of the Proposed Project Amendment is located partially within the Approved Project Development Footprint and partially within the EIR Land Exchange Alternative Development Footprint. Therefore, the Proposed Project Amendment's Development Footprint falls within the Biological Study Area, as defined above. For this reason, this Technical Memorandum's analysis of the Proposed Project Amendment relies on the various biological surveys that were conducted previously as part of the 2019 Final EIR preparation process.

In September and October 2019, Dudek and HELIX biologists visited the Proposed Project Amendment site to review the development footprints within the Biological Study Area for changes related to the jurisdictional delineation and associated vegetation mapping. The review did not reveal significant changes to those vegetation communities typically associated with jurisdictional aquatic resources. As part of this updated site review, however, Dudek and Helix biologists also inspected five features located within the City of San Diego Cornerstone lands, each of which had been previously identified as scour pools in the City of San Diego's Vernal Pool Habitat Conservation Plan source data (AECOM and Hogan 2012). During the inspection, the Dudek and HELIX biologists determined that the five scour ponds now contain the required elements of vernal pools and should be reclassified as such. Therefore, this Technical Memorandum, in addition to using all previously disclosed mapping to compare the potential impacts of the Proposed Project Amendment to the impacts disclosed in the Final EIR for the Approved Project and the EIR Land Exchange Alternative, addresses potential impacts to the five vernal pools identified during September and October 2019.

Biological surveys within the Biological Study Area were conducted in 2014, 2015, 2016, and 2017 and included the following: vegetation mapping; a jurisdictional delineation; focused rare plant surveys; habitat assessments and focused surveys for Quino checkerspot butterfly (*Euphydryas editha quino*), Hermes copper butterfly (*Lycaena hermes*), and vernal pool branchiopods; and focused surveys for burrowing owl (*Athene cunicularia*), coastal California gnatcatcher (*Polioptila californica californica*), and western spadefoot (*Spea hammondii*). A habitat assessment was conducted for arroyo toad (*Anaxyrus californicus*); however, no focused survey was deemed necessary. The survey areas for each of these focused surveys can be found within the Figure 3 series for the biological resources technical reports previously prepared for the Approved Project and the EIR Land Exchange Alternative (Dudek 2018a and 2018b).

Dudek biologists also reviewed the Biological Study Area in conjunction with planning documents to determine whether the Approved Project and the EIR Land Exchange Alternative's impacts on golden eagle (*Aquila chrysaetos*) would be consistent with those anticipated in the MSCP County Subarea Plan (County of San Diego 1997). As part of its golden eagle analysis, Dudek consulted raptor specialists at H.T. Harvey & Associates (see Appendix C of Dudek 2018a and Appendices C-1 and C-2 of Dudek 2018b for the full analysis).

Thirteen sensitive vegetation communities occur within the Biological Study Area: granitic chamise chaparral (including disturbed), granitic southern mixed chaparral, Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub–*Baccharis* dominated (including disturbed), coast live oak woodland, non-native grassland,

cismontane alkali marsh, mulefat scrub, coastal and valley freshwater marsh, southern coast live oak riparian forest, southern willow scrub, unvegetated channel, and open water. The Biological Study Area also supports aquatic resources under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and/or CDFW.

Focused rare plant surveys recorded 22 special-status plants within the Biological Study Area, including one federally and state-listed plant: Otay tarplant (*Deinandra conjugens*). Forty-nine additional rare plants have a moderate or high potential to occur in the Biological Study Area. Surveys within the Biological Study Area recorded 27 special-status wildlife species, including two federally and state-listed species (coastal California gnatcatcher and San Diego fairy shrimp [*Branchinecta sandiegonensis*]) and one fully protected species: golden eagle. An additional 24 special-status wildlife species have potential to occur in the Biological Study Area.

A full discussion of the biological resources observed within the Biological Study Area can be found in the biological resources technical reports previously prepared for the Approved Project and the EIR Land Exchange Alternative (Dudek 2018a and 2018b). Chapter 6 of this Technical Memorandum provides a comparison of the Development Footprints for the Proposed Project Amendment, the Approved Project, and the EIR Land Exchange Alternative.

5 Summaries

Each of the three projects discussed in this Technical Memorandum, the Proposed Project Amendment, the Approved Project, and the EIR Land Exchange Alternative, would implement a portion of the Otay Ranch GDP/SRP, which identifies and coordinates land use patterns, objectives, and goals for the Otay Ranch community. The Otay Ranch GDP/SRP organized development in a series of villages and planning areas with varying character and densities (City of Chula Vista and County of San Diego 1993a). The Otay Ranch GDP/SRP designates the parcels within these planning areas for residential development and Otay Ranch RMP Preserve.

This chapter provides a summary of each of the projects, their impacts on biological resources, and mitigation. Chapter 6 of this Technical Memorandum provides the detailed impact comparison of each of the three projects.

5.1 Approved Project

The Approved Project Area encompasses approximately 1,369 acres and proposes a Development Footprint of 809 acres. Specifically, the Approved Project Area includes 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. Development of the Approved Project would occur on approximately 741.9 acres (not including 67.1 acres of temporary impacts), with the remainder of the Approved Project Area consisting of 82.7 acres of non-graded Limited Development Area, 72.4 acres of Conserved Open Space (including areas designated as development and Limited Development Area), and 426.7 acres of Otay Ranch RMP Preserve. Of those 426.7 acres of Otay Ranch RMP Preserve, the Approved Project would result in 11.8 acres of permanent impacts and 10.1 acres of temporary impacts for road improvements. Portions of the development would occur off site on approximately 85.4 acres of lands owned by the City of San Diego, City of Chula Vista, CDFW, and County of San Diego (road easement), as well as on private property.

Development of the Approved Project, including the off-site improvements areas, would result in potentially significant direct or indirect effects to special-status plant species, special-status wildlife species, wildlife movement, special-status vegetation communities, and jurisdictional resources. In addition, the Approved Project would result in potential significant direct impacts to foraging or breeding habitat, wildlife movement, and avian species protected under the Migratory Bird Treaty Act. Most of these impacts, however, have been or would be mitigated by virtue of the applicant's compliance with the MSCP Plan and requirements of the Otay Ranch RMP. Impacts not covered under the MSCP Plan would be addressed by other mitigation measures. Specific mitigation related to special-status plants and wildlife species and jurisdictional resources have also been incorporated into the Approved Project, as described in detail in the Final EIR for Otay Ranch Village 14 and Planning Areas 16/19 (County of San Diego 2019). These mitigation measures would reduce the Approved Project's impacts on biological resources to less than significant. In addition, the Approved Project's impacts on local policies, ordinances, and adopted plans would be less than significant.

Mitigation for the Approved Project is generally governed by the terms of the Otay Ranch RMP and includes conveyance of Preserve land at a ratio of 1.188, for a total of 776.8 acres, 426.7 acres of which would be preserved on site (in the Approved Project Area). The additional acreage would be acquired through the purchase of Otay Ranch RMP land outside the Approved Project Area. Included in the conveyance acreage is mitigation for 9.1 acres (10.8 acres of conveyance) of impacts to sensitive vegetation within CDFW lands; this acreage is included in the 776.8 acres of conveyance calculation. Note, however, that certain portions of the Approved Project Area are subject to the Biological Mitigation Ordinance (BMO) and/or impact City of San Diego Cornerstone Lands. These portions of the Approved Project would require additional mitigation beyond that called for in the Otay Ranch RMP. Since the BMO

mitigation requirements are more stringent for certain types of habitat, the BMO requires an additional 24.6 acres of mitigation, in addition to the 776.8 acres of conveyance. Impacts to City of San Diego Cornerstone Lands would require an additional 11.3 acres of mitigation. Therefore, the total required mitigation for the Approved Project is 812.7 acres.

5.2 EIR Land Exchange Alternative

The EIR Land Exchange Alternative Project Area totals 2,387.7 acres, including both state and privately owned lands, of which approximately 1,002.6 acres are within Otay Ranch Village 14, 1,344.8 acres are within Planning Areas 16/19, and 40.2 acres consist of off-site improvements. The EIR Land Exchange Alternative's Development Footprint would encompass approximately 658 acres, composed of 601.7 acres on site and 56.6 acres off site. Off-site impacts are largely related to improvements of Proctor Valley Road. The EIR Land Exchange Alternative would preserve 965.2 acres, which would contribute to the existing state-owned Rancho Jamul Ecological Preserve, resulting in the creation of 1,757 acres of contiguous Preserve lands. The remaining acreage would remain within CDFW ownership.

Development of the EIR Land Exchange Alternative, including the off-site improvements areas, would result in potentially significant direct or indirect effects to special-status plant species, special-status wildlife species, wildlife movement, special-status vegetation communities, and jurisdictional resources. In addition, the EIR Land Exchange Alternative would result in potential significant direct impacts to foraging or breeding habitat, wildlife movement, and avian species protected under the Migratory Bird Treaty Act. Most of these impacts, however, have been or would be mitigated by virtue of the owner/applicant's compliance with the MSCP Plan and requirements of the Otay Ranch RMP. Impacts not covered under the MSCP Plan would be addressed by other mitigation measures. Specific mitigation related to special-status plants and wildlife species and jurisdictional resources have also been incorporated into the EIR Land Exchange Alternative, as described in detail in the Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19 Land Exchange Alternative (Dudek 2018b). These mitigation measures would reduce the EIR Land Exchange Alternative's impacts on biological resources to less than significant. In addition, EIR Land Exchange Alternative's impacts on local policies, ordinances, and adopted plans would be less than significant.

The mitigation for the EIR Land Exchange Alternative is governed by the terms of the Otay Ranch RMP and includes conveyance of Preserve land at a ratio of 1.188, for a total of 654.5 acres. The EIR Land Exchange Alternative would convey 403.9 acres within Village 14 and 276.3 acres within Planning Areas 16/19, for a total of 680.2 acres of conveyance. This would be 25.7 acres above the required conveyance acreage. An additional 278 acres of Preserve lands would be exchanged to the CDFW, which would contribute to the existing state-owned Rancho Jamul Ecological Preserve. A Land Exchange Agreement would be required to establish take authorized hardline development and Preserve boundaries for the entire EIR Land Exchange Alternative.

5.3 Proposed Project Amendment

The Proposed Project Amendment site includes approximately 796.2 acres within Otay Ranch Village 14, 367.5 acres within Planning Areas 16/19, and 40.1 acres of off-site development. Development of the Approved Project would occur on approximately 537.2 acres (not including 41.4 acres of temporary impacts), with the remainder of the Proposed Project Amendment consisting 24.5 acres of Conserved Open Space and 435.3 acres of Otay Ranch RMP Preserve. Within~~Of~~ those 435.3 acres of Otay Ranch RMP Preserve, the Proposed Project Amendment~~'s~~

proposes a secondary access[2] road to Village 14 and a water tank. These road improvements would permanently affect 13.1 acres and temporarily affect 13.3 acres of Preserve. However, in response to a request from the Wildlife Agencies, the project applicant has prepared an optional design for the secondary access road within the Preserve. This optional road design would remove most of the access road from the Preserve and would reduce impacts to the Preserve by 8.3 acres (5.0 acres of permanent and 3.3 acres of temporary impacts). In addition, portions of the Proposed Project Amendment would occur off site on approximately 40.1 acres of lands owned by the City of San Diego (34.6 acres), City of Chula Vista (5.3 acres), and County of San Diego (a 0.3-acre road easement).

Development of the Proposed Project Amendment, including the off-site improvements areas, would result in potentially significant direct or indirect effects to special-status plant species, special-status wildlife species, wildlife movement, special-status vegetation communities, and jurisdictional resources (see Chapter 6). In addition, the Proposed Project Amendment would result in potential significant direct impacts to foraging and/or breeding habitat, wildlife movement, and avian species protected under the Migratory Bird Treaty Act. Most of these impacts, however, have been or would be mitigated by virtue of the applicant's compliance with the MSCP Plan and requirements of the Otay Ranch RMP. Impacts not covered under the MSCP Plan would be addressed by other mitigation measures. Specific mitigation related to special-status plants and wildlife species and jurisdictional resources have also been incorporated into the Proposed Project Amendment, as described in detail in Chapter 6. These mitigation measures would reduce the Proposed Project Amendment's impacts on biological resources to less than significant. In addition, the Proposed Project Amendment's impacts on local policies, ordinances, and adopted plans would be less than significant.

Mitigation for the Proposed Project Amendment is generally governed by the terms of the Otay Ranch RMP and includes conveyance of Preserve land at a ratio of 1.188, for a total of ~~558.7~~556.6 acres, 377 acres of which would be preserved on site (in the Proposed Project Amendment Project Area). The remaining Conveyance Obligation would be met through the off-site Otay Ranch RMP Preserve in Planning Area 16 (58.3 acres), Conserved Open Space (24.5 acres), and a conservation easement over land designated as development in Planning Area 16 (191.5 acres), for a total of 274.3 acres. Note, however, that certain portions of the Proposed Project Amendment Project Area are subject to the BMO and/or impact City of San Diego Cornerstone Lands. These portions of the Proposed Project Amendment would require additional mitigation beyond that called for in the Otay Ranch RMP. Since the BMO mitigation requirements are more stringent for certain types of habitat, the BMO requires an additional 11.4 acres of mitigation in addition to the ~~558.7~~556.6 acres of conveyance. Impacts to City of San Diego Cornerstone Lands would require an additional 14.5 acres of mitigation (see Section 6.6, Local Policies, Ordinances, and Adopted Plans). Therefore, the total required mitigation for the Proposed Project Amendment is 584.6 acres.

[2] The access road (also described as Street "I"), is required for the Otay Water District water transmission line, access to the 980-Zone regional water reservoir facility, and also provides secondary fire access for Village 14. The water transmission line, water reservoir and associated access road are allowed facilities in the Otay Ranch RMP Preserve and the County MSCP Subarea Plan.

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6 Development Footprint Comparisons

The Final EIR evaluated both the Approved Project and the EIR Land Exchange Alternative at a project level of detail. This report examines whether the Final EIR, through its analysis of the Approved Project and the EIR Land Exchange Alternative, covered all anticipated impacts of the Proposed Project Amendment. This chapter provides a comparison of the Development Footprints for the Proposed Project Amendment, the Approved Project, and the EIR Land Exchange Alternative. Sections 6.1 through 6.5 specifically address riparian habitat and sensitive vegetation communities, special-status plants and wildlife, jurisdictional resources, wildlife movement, and ordinances and plans. Figure 5, Certified EIR Study Area, depicts the limits of the development contemplated under the Approved Project and the EIR Land Exchange Alternative and then compares these limits to those of the Proposed Project Amendment. Table 1 likewise compares the Proposed Project Amendment to the Approved Project and the EIR Land Exchange Alternative. Note that from a geographical perspective, each acre that composes the Proposed Project Amendment's Development Footprint is located either within the Approved Project Development Footprint or within the EIR Land Exchange Alternative Development Footprint. In other words, no portion of the Proposed Project Amendment Development Footprint is outside the combined Approved Project and EIR Land Exchange Alternative Development Footprints.

Table 1. Proposed Project Amendment Comparison

Description		Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative
Total Project Area		1,543 acres	1,369 acres	2,388 acres
Development Footprint		578.6 acres	809 acres	658 acres
Graded Acres (within Development Footprint)		522 acres	599 acres	583 acres
Off-site Improvements		40 acres	85 acres	40 acres
Conserved Open Space		24.5 acres	72.4 acres	N/A
Conveyance to Otay Ranch RMP Preserve/Preservation		626.7 acres	776.8 acres	687.2 acres
Biological Mitigation Ordinance Areas	PV1	Excluded	Included	Excluded
	PV2	Included	Included	Excluded
	PV3	Excluded (except for Basin and Proctor Valley Road)	Included	Included

Notes: EIR = Environmental Impact Report; N/A = not applicable; RMP = Resource Management Plan; PV = Proctor Valley.
The 626.7 acres of preserved lands associated with the Proposed Project Amendment includes the 191.5 acres within Planning Area 16 that are designated development, but as a part of the Dispute Resolution Agreement, a conservation easement will be placed over the land and granted to CDFW to manage. This land will also include 58.3 acres of designed Otay Ranch RMP Preserve within Planning Area 16 under control of the owner/applicant off site and 377 acres of on-site Otay Ranch RMP Preserve within Village 14 and Planning Area 16. All of the required conveyance, estimated at ~~558.7~~556.6, will be satisfied on site within these 626.7 acres.

6.1 Riparian Habitat or Sensitive Vegetation Communities

6.1.1 Development Footprint Comparisons

Table 2 identifies the Proposed Project Amendment's direct impacts (permanent and temporary) on sensitive vegetation communities and then compares them to those of the Approved Project and the EIR Land Exchange Alternative (Impacts BI-13, BI-14, BI-15, BI-16, BI-17, and BI-18, as described in the Final EIR[3]). As the acreages in Table 2 show, the Proposed Project Amendment's temporary[4] and permanent direct impacts to vegetation communities are substantially similar to those of the Approved Project and the EIR Land Exchange Alternative, as analyzed and disclosed in the Final EIR (County of San Diego 2019). In terms of overall permanent impacts to sensitive vegetation communities, the Proposed Project would disturb substantially less acreage (512.4 acres) than the Approved Project (718.4 acres) and the EIR Land Exchange Alternative (624.9 acres).The Proposed Project Amendment's temporary and permanent indirect impacts would be the same as those described in the Final EIR for the Approved Project (Impacts BI-24 and BI-25).

Table 2. Direct Impacts to Vegetation Communities and Land Cover Types – Development Footprint Comparison (Acres)

Habitat Types/Vegetation Communities	Proposed Project Amendment Impacts		Approved Project Impacts		EIR Land Exchange Alternative Impacts	
	Perm.	*Temp*	*Perm.*	*Temp.*	*Perm.*	*Temp.*
Sensitive Upland Communities						
Granitic chamise chaparral (including disturbed)	352.4	3.5	230.9	18.8	426.2	2.3
Granitic southern mixed chaparral	1.7	1.5	12.4	1.9	1.7	1.5
Diegan coastal sage scrub	96.7	10.8	353.5	18.7	82.7	9.4
Diegan coastal sage scrub (disturbed)	14.3	9.7	51.0	9.6	43.3	6.0
Diegan coastal sage scrub–*Baccharis* dominated (including disturbed)	0.4	0.9	0.4	0.9	0.4	0.9
Non-native grassland	45.7	11.2	70.2	12.5	42.5	9.4
Subtotal of Sensitive Upland Communities	*511.2*	*27.5*	*718.4*	*62.4*	*596.7*	*29.5*
Riparian Habitat/Jurisdictional Aquatic Resources						
Cismontane alkali marsh (including disturbed)	0.8	0.1	1.0	<0.1	0.2	0.3
Mulefat scrub	0.1	0.3	0.1	0.3	0.1	0.3
Coastal and valley freshwater marsh	0.1	0.3	0.1	0.3	0.1	0.3
Southern coast live oak riparian forest	—	—	—	—	—	—
Southern willow scrub	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Open water	—	—	0.2	—	—	—
Unvegetated channel [a]	<0.1	0.1	<0.05	0.1	<0.1	0.1
Subtotal of Riparian Habitat/Jurisdictional Aquatic Resources	*1.2*	*0.7*	*1.6*	*0.7*	*0.4*	*1.1*

[3] Note that Impact BI-19 as described in the Final EIR is not applicable to the Proposed Project Amendment.

[4] Temporary impacts are largely associated with improvements to Proctor Valley Road but, for the Approved Project only, also include impacts along connector roads in Village 14 and Planning Area 16.

Table 2. Direct Impacts to Vegetation Communities and Land Cover Types – Development Footprint Comparison (Acres)

Habitat Types/Vegetation Communities	Proposed Project Amendment Impacts		Approved Project Impacts		EIR Land Exchange Alternative Impacts	
	Perm.	*Temp*	*Perm.*	*Temp.*	*Perm.*	*Temp.*
Non-Sensitive Communities and Land Covers						
Eucalyptus woodland	3.0	0.1	—	0.2	3.0	0.1
Urban/developed	7.3	1.1	5.9	1.2	7.8	1.4
Disturbed habitat	14.4	1.9	16.0	2.6	17.0	1.3
Subtotal of Non-Sensitive Communities and Land Covers	*24.7*	*3.2*	*21.9*	*4.0*	*27.8*	*2.8*
Total[b]	**537.2[c]**	**41.4[c]**	**741.9**	**67.1**	**624.9**	**33.4**

Notes:

[a] Unvegetated stream channel is also an overlay within various vegetation communities and is therefore not fully represented in this table. See Table 3.

[b] May not sum precisely due to rounding.

[c] The optional design for the secondary access to the water tank and Village 14 would eliminate a total of 8.3 acres of impacts to the Preserve. These impacts include 5.0 acres of permanent impacts and 3.3 acres of temporary impacts within the Preserve.

6.1.2 Discussion

The Proposed Project Amendment would permanently affect 537.2 acres within the Biological Study Area. Of these 537.2 acres, 511.2 acres are impacts to sensitive upland vegetation and 1.2 acres are impacts to riparian habitat (Table 2; Figure 6 series, Impacts to Biological Resources). Although the Proposed Project Amendment would result in greater permanent impacts to chaparral as compared to the Approved Project, its impacts to other sensitive upland vegetation communities would be less. For example, the Proposed Project Amendment's total permanent impact to sensitive upland vegetation would be 207.2 acres less than that of the Approved Project, and 85.5 acres less than that of the EIR Land Exchange Alternative. In addition, the Proposed Project Amendment's permanent direct impacts to riparian habitat/jurisdictional resources would be 0.4 acres less than that of the Approved Project, but 0.8 acres more than that of the EIR Land Exchange Alternative.

Temporary impacts for the Proposed Project Amendment would be 25.7 acres less than the Approved Project and 8 acres more that the EIR Land Exchange Alternative. The difference in temporary impacts between the Proposed Project Amendment and Approved Project is that, upon further review of the site plan, it was determined that some of the *temporary* impacts associated with Proctor Valley Road could not be revegetated adequately and thus had to be re-categorized as *permanent* impacts for purposes of the Proposed Project Amendment. The significance of these potential impacts was determined through application of the County's Significance Guidelines (Guideline 4.2), as described in Section 2.4.3.2, Guideline 4.2: Riparian Habitat or Sensitive Natural Community, of the Final EIR (County of San Diego 2019). The Proposed Project Amendment's impacts to sensitive vegetation communities, both permanent and temporary, would be **significant** absent mitigation. However, the Proposed Project Amendment would not result in any new significant impacts to riparian habitats or sensitive vegetation communities and would not substantially increase the severity of significant impacts previously identified in the certified Final EIR. Implementation of 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), as described in Chapter 7, would reduce these impacts to **less than significant**.

6.2 Special-Status Plant Species

6.2.1 Development Footprint Comparisons

A comparison of the loss of special-status plant species for the Proposed Project Amendment, Approved Project, and the EIR Land Exchange Alternative is presented in Table 3. Permanent direct impacts to special-status plant species were quantified by comparing the Development Footprints with the occurrence data for each special-status plant species (Impacts BI-4 and BI-5 from the Final EIR). Temporary direct impacts to special-status plants resulting from grading are quantified as permanent direct impacts. Table 3 includes each species' status and an assessment of permanent direct impacts based on the number of individual plants located within the Development Footprints. Impacts associated with the Proposed Project Amendment are shown on the Figure 6 series. In addition, there are impacts to critical habitat for Otay tarplant and spreading navarretia (*Navarretia fossalis*), as described in Table 3. Impacts to critical habitat for the Proposed Project Amendment are shown on Figure 7. Temporary and permanent indirect impacts (Impacts BI-9 and BI-12) would be similar to those discussed in the Final EIR (County of San Diego 2019).

6.2.2 Discussion

The Proposed Project Amendment would result in direct impacts to three County List A plant species: San Diego goldenstar (*Bloomeria clevelandii*; 727 individuals), Otay tarplant (*Deinandra conjugens*; 25 individuals/8 acres of critical habitat), and Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*; 56 individuals). The Proposed Project Amendment would have impacts to critical habitat for spreading navarretia but would not impact any populations of this species, as it was not observed during focused surveys. Impacts to three County List B plant species would also occur: San Diego barrel cactus (*Ferocactus viridescens*; 12 individuals); San Diego marsh-elder (*Iva hayesiana*; 3,250 individuals), and Munz's sage (*Salvia munzii*; 10,918 individuals). A total of six County List D species would be impacted, as listed in Table 3.

As compared to the Approved Project, the Proposed Project Amendment would result in fewer impacts to all special-status plant species, with the exception of Otay tarplant. With respect to Otay tarplant, the Proposed Project Amendment and the Approved Project would both adversely affect 25 individual plants. The Proposed Project Amendment would avoid impacts to several County List A species that would be affected by the Approved Project: Orcutt's brodiaea (*Brodiaea orcuttii*), delicate clarkia (*Clarkia delicata*), and variegated dudleya (*Dudleya variegata*; also a Narrow Endemic species).

When compared to the EIR Land Exchange Alternative, the Proposed Project Amendment would result in fewer impacts to all special-status plant species with the exception of southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*; County List D species) and San Diego marsh-elder. For these two species, the Proposed Project Amendment would result in greater impacts (Table 3). Note, however, that the Proposed Project Amendment would avoid impacts to variegated dudleya, whereas the EIR Land Exchange Alternative would adversely affect 35 individuals of this species.

The significance of these potential impacts was determined through application of the County's Significance Guidelines (Guideline 4.1), as described in Section 2.4.3.1, Guideline 4.1: Candidate, Sensitive, or Special-Status Species, of the Final EIR (County of San Diego 2019).Table 3 provides the significance calls for each plant species and associated mitigation measures required to reduce any impacts to less than significant. The Proposed Project Amendment would not result in any new significant impacts to special-status plant species and would not substantially increase the severity of previously identified significant impacts in the certified Final EIR.

Table 3. Direct Impacts to Special-Status Plant Species – Development Footprint Comparison

Species	Regulatory Status: Federal/ State/County/ CRPR	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative	Significance Determination for the Proposed Project Amendment
County List A					
Arctostaphylos otayensis Otay manzanita	None None Covered 1B.2	—	—	—	—
Bloomeria clevelandii San Diego goldenstar	None None Covered 1B.1	727	775	2,228	Although San Diego goldenstar is a Covered Species under the Otay Ranch RMP and MSCP Plan, the Proposed Project Amendment's impacts to this species are subject to RMP translocation requirements. Therefore, upon implementation of mitigation measures **M-BI-3**, **M-BI-4**, and **M-BI-11**, the impacts to this species would be **less than significant**.
Brodiaea orcuttii Orcutt's brodiaea	None None Covered 1B.1	—	83	—	—
Calochortus dunnii Dunn's mariposa-lily	None SR Covered, NE 1B.2	—	—	—	—
Clarkia delicata delicate clarkia	None None Not Covered 1B.2	—	4	—	—
Clinopodium chandleri San Miguel savory	None None Covered 1B.2	—	—	—	—
Deinandra conjugens Otay tarplant	FT SE Covered 1B.1	25 8.0 acres of critical habitat	25 17.3 acres of critical habitat	25 7.2 acres of critical habitat	The Proposed Project Amendment's direct off-site impacts to Otay tarplant individuals have already been mitigated. Thus, the impacts on this species would be **less than significant**.

Table 3. Direct Impacts to Special-Status Plant Species – Development Footprint Comparison

Species	Regulatory Status: Federal/ State/County/ CRPR	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative	Significance Determination for the Proposed Project Amendment
Dudleya variegata variegated dudleya	None None Covered, NE 1B.2	—	35	35	—
Lepechinia ganderi Gander's pitcher sage	None None Covered, NE 1B.3	—	—	—	—
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None None Not Covered 4.3	56	168	174	Robinson's pepper-grass has a low CRPR 4.3 ranking in terms of threats and plant rarity. Thus, the Proposed Project Amendment's impacts to this species would be **less than significant**. However, **M-BI-3** and **M-BI-4** would provide for the preservation of existing populations and suitable habitat for the species.
Navarretia fossalis spreading navarretia	FT None Covered 1.B	8.2 acres of critical habitat	16.6 acres of critical habitat	8.6 acres of critical habitat	—
County List B					
Ferocactus viridescens San Diego barrel cactus	None None Covered 2B.1	12	48	48	All of the Proposed Project Amendment's impacts to San Diego barrel cactus occur within the cities of Chula Vista and San Diego. San Diego barrel cactus is a Covered Species those cities' MSCP Subarea Plans. Therefore, impacts to this species associated with the Proposed Project Amendment would be **less than significant**.
Iva hayesiana San Diego marsh-elder	None None Not Covered 2B.2	3,250	3,937	1,566	The Proposed Project Amendment's impacts to San Diego marsh-elder would be mitigated to **less than significant** through the habitat conveyance required under **M-BI-3** and **M-BI-4**, implementation of a Resource Salvage and Restoration Plan (**M-BI-11**) consistent with the RMP and BMO, and restoration of temporary impacts (**M-BI-12**).

Table 3. Direct Impacts to Special-Status Plant Species – Development Footprint Comparison

Species	Regulatory Status: Federal/ State/County/ CRPR	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative	Significance Determination for the Proposed Project Amendment
Salvia munzii Munz's sage	None None Not Covered 2B.2	10,918	11,812	11,303	The Proposed Project Amendment's impacts to Munz's sage would be **less than significant** due to conservation of the species within the Proposed Project Amendment Project Area and elsewhere within Otay Ranch. **M-BI-3** and **M-BI-4** would provide for the preservation of existing populations and suitable habitat for the species.
County List D					
Artemisia palmeri San Diego sagewort	None None Not Covered 4.2	2	4	—	The Proposed Project Amendment's impacts on San Diego sagewort would be **less than significant** because this is a List D species and the Proposed Project Amendment would not jeopardize the local, long-term viability of the species. In addition, 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 2019), impacts to fewer than 10 individuals is not expected to impact the local long-term survival of this species. Nevertheless, 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 Amendment would contribute to the Ranch-wide preservation goals.
Dichondra occidentalis western dichondra	None None Not Covered 4.2	0.06 acres[b]	0.23 acres[b]	0.23 acres[b]	The Proposed Project Amendment's impacts on western dichondra would be **less than significant** because this is a List D species and the Proposed Project Amendment would not jeopardize the local, long-term viability of the species. Nevertheless, 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 Amendment would contribute to the Ranch-wide preservation goals. In addition, western dichondra 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 2019), impacts to 0.06 acres are not expected to impact the local long-term survival of this species.

Table 3. Direct Impacts to Special-Status Plant Species – Development Footprint Comparison

Species	Regulatory Status: Federal/ State/County/ CRPR	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative	Significance Determination for the Proposed Project Amendment
Harpagonella palmeri Palmer's grapplinghook	None None Not Covered 4.2	—	40	40	—
Holocarpha virgata ssp. *elongata* graceful tarplant	None None Not Covered 4.2	—	20	5	—
Juncus acutus ssp. *leopoldii* southwestern spiny rush	None None Not Covered 4.2	54	85	31	The Proposed Project Amendment's impacts on Southwestern spiny rush would be **less than significant** because this is a List D species and the Proposed Project Amendment would not jeopardize the local, long-term viability of the species. Nevertheless, 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 Amendment 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 2019), impacts to 54 individuals are not expected to impact the local long-term survival of this species, especially considering the preservation of individuals in the 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 and off site.
Pentachaeta aurea ssp. *aurea* golden-rayed pentachaeta	None None Not Covered 4.2	121	6,350	2,341	The Proposed Project Amendment's impacts on golden-rayed pentachaeta would be **less than significant** because this is a List D species and the Proposed Project Amendment would not jeopardize the local, long-term viability of the species. Nevertheless, 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 Amendment would

Table 3. Direct Impacts to Special-Status Plant Species – Development Footprint Comparison

Species	Regulatory Status: Federal/ State/County/ CRPR	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative	Significance Determination for the Proposed Project Amendment
					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 2019; SDNHM 2019), impacts to approximately 121 individuals are not expected to impact the local long-term survival of this species.
Selaginella cinerascens ashy spike-moss	None None Not Covered 4.1	1.34 acres[b]	3.69 acres[b]	1.61 acres[b]	The Proposed Project Amendment's impacts on ashy spike-moss would be **less than significant** because this is a List D species and the Proposed Project Amendment would not jeopardize the local, long-term viability of the species. Nevertheless, 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 would contribute to the Ranch-wide preservation goals. In addition, ashy spike-moss is a CRPR 4.1 species, indicating it has a limited distribution and is seriously threatened in California. Given its low sensitivity ranking and that it is known from 17 quads in Southern California (CNPS 2019), impacts to 1.37 occupied acres are not expected to impact the local long-term survival of this species, especially considering the preservation of occupied locations, as well as additional suitable habitat for this species in the Otay Ranch RMP Preserve system on site.
Stipa [=Achnatherum] diegoensis San Diego County needle grass	None None Not Covered 4.2	—	93	—	—
Viguiera laciniata San Diego County viguiera	None None Not Covered	669	6,857	2,430	The Proposed Project Amendment's impacts on San Diego County viguiera would be **less than significant** because this is a List D species and the Proposed Project Amendment would not jeopardize the local,

Table 3. Direct Impacts to Special-Status Plant Species – Development Footprint Comparison

Species	Regulatory Status: Federal/ State/County/ CRPR	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative	Significance Determination for the Proposed Project Amendment
	4.2				long-term viability of the species. Nevertheless, 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 Amendment would contribute to the Ranch-wide preservation goals. Preservation of individuals within the Otay Ranch RMP Preserve would contribute to the Ranch-wide goals for this species.

Notes: CRPR = California Rare Plant Rank; MSCP = Multiple Species Conservation Program.

[a] Impacts to special-status plants include impacts within the permanent and temporary footprints.

[b] Impacts to western dichondra and ashy spike-moss are in acres occupied rather than number of individuals impacted due to the difficulty in counting distinct individuals for these species, given their growth habits.

Status Legend

Federal

FT: Federally listed as threatened

State

SE: State listed as endangered

SR: State listed as rare

County

Covered: MSCP Covered Species

Not Covered: Species not Covered under the MSCP

NE: Narrow Endemic

CRPR

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 (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

6.3 Special-Status Wildlife Species

6.3.1 Surveys for Special-Status Wildlife Species

As explained in the Final EIR, the project biologists performed *focused* surveys for a number of highly sensitive species and the resources on which they rely (County of San Diego 2019). These surveys included: (i) a habitat assessment, larval host plant survey, and protocol surveys for Quino checkerspot butterfly; (ii) focused protocol surveys for coastal California gnatcatcher; (iii) a habitat assessment and four-pass protocol survey for burrowing owl; (iv) a habitat assessment for arroyo toad; (v) a habitat assessment and protocol surveys for Hermes copper butterfly; (vi) nest survey and habitat assessment for golden eagle; (vii) a habitat assessment and protocol wet season and dry season surveys for listed large branchiopods (i.e., fairy shrimp); and (viii) focused surveys for western spadefoot (County of San Diego 2019).

6.3.21 Development Footprint Comparisons

The Final EIR's Biological Resources Technical Reports provide detailed assessments of the Approved Project's impacts on habitat for special-status wildlife species either known to occur or with a high potential to occur within the Biological Study Area (Section 5.3. in both reports; Impacts BI-1, BI-2, BI-3, BI-6, BI-7, BI-8, BI-10, and BI-11 in the Final EIR). These same reports provide similar information for the EIR Land Exchange Alternative. As stated previously, (1) the Proposed Project Amendment's Development Footprint does not extend beyond the geographic boundaries of the respective Development Footprints of the Approved Project and the Land Exchange Alternative and (2) the Proposed Project Amendment's Development Footprint results in less impact to native habitat than either the Approved Project or the EIR Land Exchange Alternative. Given these facts, it is reasonable to conclude that the impact evaluations provided in the Final EIR's Biological Resources Technical Reports capture the full extent of impacts for the Proposed Project Amendment, and that impacts to suitable habitat for these species would be less than those of the Approved Project and the EIR Land Exchange Alternative. Impacts associated with the Proposed Project Amendment are shown on the Figure 6 series.

Based on the surveys discussed in Section 6.3.1 and other available data, the Final EIR determined that the Approved Project would have significant impacts on the following: Quino checkerspot butterfly habitat (**Impact BI-1**); habitat for various special-status wildlife species, including coastal California gnatcatcher and burrowing owl (**Impact BI-2**); Hermes copper butterfly habitat (**Impact BI-3**); golden eagle foraging habitat (**Impact BI-6**); habitat for special-status wildlife species, including amphibians, reptiles, and small mammals (**Impacts BI-7, BI-11, BI-12**); and birds protected under the Migratory Bird Treaty Act (**Impact BI-8**) (County of San Diego 2019). The Final EIR recommended various mitigation measures, which, if adopted and implemented, would reduce these impacts to less than significant levels (County of San Diego 2019).

The Final EIR also determined that the EIR Land Exchange Amendment would have similar significant impacts on special-status wildlife species, and that the recommended mitigation measures, if implemented, would reduce such impacts to a less than significant level.

Four special-status species were analyzed extensively in the certified Final EIR (which includes the Biological Technical Reports for the Approved Project and the Land Exchange Alternative) due to their sensitivity: (1) Quino checkerspot butterfly (*Euphydryas editha quino*; Impact BI-1), (2) Hermes copper butterfly (*Lycaena hermes*; Impact BI-3), (3) golden eagle (*Aquila chrysaetos*; Impact BI-6), and (4) burrowing owl (*Athene cunicularia*; Impact BI-2). This Technical Memorandum discusses these four species, along with western spadefoot (*Spea hammondii*), in greater detail (see Table

4 and Section 6.3.3). In addition, this Technical Memorandum assessed the Proposed Project Amendment's potential impacts on Crotch bumble bee (*Bombus crotchii*), which became a candidate for listing under the California Endangered Species Act in June 2019, following certification of the Final EIR. ~~In addition, a full comparison of the Proposed Project Amendment, Approved Project, and EIR Land Exchange Alternative as they relate to Quino checkerspot butterfly habitat assessments and protocol surveys is provided in Appendix A. A detailed analysis of the Proposed Project Amendment's impacts to Quino checkerspot butterfly host plants is presented on the Figure 8 series, 2016 Quino Host Plant Mapping and Recent Sightings.~~

~~Like the Approved Project and the EIR Land Exchange Alternative, the Proposed Project Amendment has been designed to avoid impacts on features occupied by San Diego fairy shrimp (*Branchinecta sandiegonensis*). Therefore, San Diego fairy shrimp is not included in Table 4, which summarizes direct impacts to special status wildlife species. However, because such features supporting San Diego fairy shrimp may in the future develop in locations where they do not currently exist, the Final EIR included a mitigation measure that requires the project applicant to consult with USFWS to determine whether take authorization is required for impacts to San Diego fairy shrimp suitable habitat (see **M-BI-7** in Chapter 7). This same mitigation measure would apply to the Proposed Project Amendment.~~

~~During recent inspection of the Biological Study Area (September and October 2019), project biologists detected five vernal pools within the City of San Diego Cornerstone lands that were previously designated as scour pools, not vernal pools. Project biologists had surveyed this area in the past as part of the biological review for the Approved Project EIR, but the features in question did not at that time exhibit the requisite characteristics of vernal pools (i.e., they did not support vernal pool indicator species). Specifically, in April and June 2014, Dudek biologists assessed the entire project area and mapped potential features (i.e., vernal pools, ephemeral basins, and road ruts) that could support vernal pool branchiopods. As part of this effort, Dudek biologists reviewed the specific on-site microhabitats (e.g., flat topography, soil types, and slopes) along with the potential vernal pool locations provided in the Proctor Valley Vernal Pool Restoration Plan (AECOM and Hogan 2012) and A Report on the Flora of Otay Ranch Vernal Pools, 1990–1991 (Dudek & Associates 1992). The biologists inspected all features for occurrences of vernal pool plant species. After the 2014/2015 wet season survey and the USFWS release of new survey guidelines for listed large branchiopods (adopted May 31, 2015), dry season sampling was authorized by USFWS and was conducted according to the 2015 guidelines (USFWS 2015).~~

~~Due to updates to the USFWS survey guidelines for fairy shrimp and the predicted El Niño conditions for the 2015/2016 wet season, another wet season survey was conducted within the review area, focusing on potential features that the proposed project might disturb. Again, each potential feature was reviewed for the presence of vernal pool indicator plants and none of the features within the review area supported such plants, including the five scour pools referenced above. Another dry season survey was conducted in 2016.~~

~~Through the habitat assessment and 2 years of surveys, Dudek biologists mapped 52 features within the biological study area that met the ponding requirements set forth in the USFWS survey guidelines. The focused surveys resulted in the detection of federally endangered San Diego fairy shrimp within four features in the biological study area: A22, A23, A27, and D4.~~

~~In the Biological Technical Report for the Approved Project EIR, Dudek determined which basins within the biological study area qualified as vernal pools. To make this determination, Dudek relied on the criteria set forth in the Report on the Flora of the Otay Ranch Vernal Pools, 1990–1991 (Dudek & Associates 1992). Pursuant to those criteria, a vernal pool requires at least one indicator plant species "whose distribution in coastal California is completely or substantially restricted to vernal pool basins" (Dudek & Associates 1992, p. 5). Based on the 2 years of focused surveys conducted for the proposed project (described above), none of the surveyed features (road ruts and~~

~~ephemeral basins) in the biological study area contained vernal pool plant indicator species, and thus none met the applicable criteria discussed above. Accordingly, they were not classified as vernal pools.~~

~~During the October 24, 2019, site visit, HELIX, Dudek, and U.S. Army Corps of Engineers staff observed potential vernal pool plant indicators in basins located within the portion of the review area owned by the City of San Diego (i.e., City of San Diego Cornerstone Lands). Although the Proctor Valley Vernal Pool Restoration Plan identified these features as floodplain scour pools (AECOM and Hogan 2012), none of these basins held water long enough to be included within the protocol surveys described above, nor did they contain vernal pool plant species at the time the 2014 surveys were conducted. Dudek revisited these areas on October 30, 2019, to determine the type and extent of vernal pool indicator plants within each feature. During this review, Dudek observed within those basins vernal pool plant species, wetland plant species, and leftover carapaces of Ostracods, a freshwater crustacean species. The basins appear to have been created through a scouring process associated with the main Proctor Valley drainage, and as previously stated, the Proctor Valley Vernal Pool Restoration Plan identified these features as floodplain scour pools (AECOM and Hogan 2012).~~

~~All five of these pools are isolated and scoured within the alluvial terraces adjacent to the main flood channel, and their individual watersheds reflect this landscape flow pattern, with most of the pool watersheds concentrated on the upstream side of each mapped pool. For these pools to persist, the input from their watersheds will need to be maintained so that the current hydrological support for these pools is not lost or reduced. Also, the pools will need to be able to outflow at their existing high water level; otherwise, there is potential that the pools will pond too deeply and/or for too long.~~

~~The current and approved design for Proctor Valley Road includes a bridge with a proposed span of approximately 282 lineal feet. In order to avoid permanent direct impact to the five pools described above (and their watersheds), the proposed bridge for Proctor Valley Road will increase its span from 282 lineal feet to approximately 702 lineal feet. This increase in span length will allow the bridge to avoid the drainage, including the vernal pools and their watershed (Figure 9, Vernal Pools within City of San Diego Cornerstone Lands). In addition, the bridge pylons would be placed outside of the vernal pools and associated watershed. With this bridge design, the landscape in which these pools occur will be maintained, and the watershed input to the pools, as well as their outflow elevations, will not be altered. The bridge will not be directly over any of the pools and direct impacts to the pools will be avoided during project construction. Based on these facts, the proposed bridge at Proctor Valley Road, and the Proposed Project Amendment as a whole, would avoid impacts to vernal pools and the species that rely on them, which is consistent with the conclusions drawn in the Approved Project EIR. For this reason, the Proposed Project Amendment is likewise consistent with the City of San Diego's Vernal Pool Habitat Conservation Plan (VPHCP). Note, however, that the project applicant must obtain from the City a site development permit and the City, as part of that permitting process, might require additional measures to ensure continued compliance with the VPHCP. Should the City require such additional measures, the project applicant will implement them, along with any other measures the City might impose as conditions of the site development permit. The temporary impacts associated with bridge construction will be restored to pre-project conditions as required by the City's Land Development Code, leaving both the pools and watersheds in place.~~

~~The Proposed Project Amendment's temporary and permanent indirect impacts to special status wildlife species (BI-10 and BI-11), as well as temporary direct impacts (BI-7), would be similar to those discussed in the Final EIR (County of San Diego 2019).~~

Table 4. Permanent Impacts to Special-Status Wildlife Species Present within the Biological Study Area, or with a High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/MSCP/ County Group	Development Footprint Impacts			Significance Determination for the Proposed Project Amendment
		Proposed Project Amendment	*Approved Project*	*EIR Land Exchange Alternative*	
western spadefoot (*Spea hammondii*)	None SSC Not Covered Group 2	12 occupied features	12 occupied features	8 occupied features	Western spadefoot is not a Covered Species under the MSCP. However, this species is covered in the Otay Ranch RMP. Policy 2.8 of the Otay Ranch RMP, Phase 1, states the following: "Preserve on-site populations of plant and wildlife species recognized as Category 2 Candidates for listing by USFWS." Western spadefoot was listed as a Category 2 species in the Otay Ranch RMP, Phase 2. Per the Phase 2 Resource Management Plan Update (RECON 2018), Policy 2.8 is complete, as the Preserve boundaries were established in Section 5.1 of the Phase 1 RMP and were designed to achieve this standard. The Otay Ranch RMP conveyance obligation is the required fair-share mitigation based on the Otay Ranch RMP and the MSCP Plan. Thus, by conveying the required acreage of land to the Otay Ranch RMP Preserve (**M-BI-3**), direct impacts to this species would be reduced to **less than significant** for the Proposed Project Amendment. Specifically, the applicant will be contributing to spadefoot habitat within the Otay Ranch RMP Preserve by preserving four occupied features that support this species, as well as suitable estivation habitat. This level of conservation would mitigate impacts by providing suitable habitat in a configuration that preserves genetic exchange and species viability. Each of the conserved occupied pools is surrounded by protected open space that allows for the unimpeded movement of adults into surrounding areas of available aestivation habitat.
golden eagle (*Aquila chrysaetos*) (nesting and wintering)	BCC FP, WL Covered Group 1	538.7 acres of foraging habitat	780.8 acres of foraging habitat	596.6 acres of foraging habitat	Per the MSCP Implementing Agreement, conservation provided through the Otay Ranch RMP and MSCP County Subarea Plan would mitigate for direct impacts to covered sensitive species and reduce impacts to less than significant. The development footprint for the Proposed Project Amendment would not result in lethal take of golden eagle individuals or disturbance of any active golden eagle nest. In addition, the Proposed Project Amendment would not place human activity within 4,000 feet

Table 4. Permanent Impacts to Special-Status Wildlife Species Present within the Biological Study Area, or with a High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/MSCP/ County Group	Development Footprint Impacts			Significance Determination for the Proposed Project Amendment
		Proposed Project Amendment	*Approved Project*	*EIR Land Exchange Alternative*	
					of an active golden eagle nest, per the conditions of the MSCP. Nor would the Proposed Project Amendment place human activity within 3,000 feet of historical nests per the Otay Ranch Raptor Management Study (Ogden 1992). Compliance with these plans would mitigate for direct and indirect impacts to golden eagle, reducing impacts to **less than significant**. Therefore, the Proposed Project Amendment would not result in any significant impacts that have not already been mitigated through compliance with the MSCP, the MSCP County Subarea Plan, and the Otay Ranch RMP.
burrowing owl (*Athene cunicularia*) (burrow sites and some wintering sites)	BCC SSC Covered Group 1	34.1 acres of potential habitat	84.7 acres of potential habitat	140.1 acres of potential habitat	Conservation provided through the Otay Ranch RMP and MSCP County Subarea Plan conformance/equivalency would provide mitigation for direct impacts to covered species to reduce impacts to **less than significant** (**M-BI-3**). In addition, preconstruction surveys for the Proposed Project Amendment would be conducted to ensure that direct impacts to this species are avoided (**M-BI-13**).
Quino checkerspot butterfly (*Euphydryas editha quino*)	FE None Not Covered Group 1	527.1 acres of potential habitat[1] 500.2 acres of critical habitat[1]	789.4 acres of potential habitat[1] 488.4 acres of critical habitat[1]	605.5 acres of potential habitat[1] 595.0 acres of critical habitat[1]	The Proposed Project Amendment would affect potential Quino checkerspot butterfly habitat. This impact would be significant absent mitigation. Mitigation for direct impacts to potential Quino checkerspot butterfly habitat include habitat conveyance and preservation (**M-BI-3**, **MBI-4**, and **M-BI-9**), Quino checkerspot butterfly take authorization (**M-BI-8**), and Quino checkerspot butterfly management/ enhancement plan (**M-BI-10**). Implementation of these mitigation measures would reduce direct impacts to suitable Quino checkerspot butterfly habitat to **less than significant** for the Proposed Project Amendment. In May 2019, just prior to the certification of the Final EIR, USFWS released survey data for the 2019 Quino checkerspot butterfly flight season, including survey data in the Otay Ranch area of San Diego County. This data was reviewed by HELIX, who determined

Table 4. Permanent Impacts to Special-Status Wildlife Species Present within the Biological Study Area, or with a High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/MSCP/ County Group	Development Footprint Impacts			Significance Determination for the Proposed Project Amendment
		Proposed Project Amendment	*Approved Project*	*EIR Land Exchange Alternative*	
					that since the 2019 survey data closely matched the 2017 survey data and other previous sightings, the 2019 occurrence data did not alter the analysis, conclusions, or mitigation measures set forth in the Final EIR, in which impacts were determined to be **less than significant with mitigation**. A detailed discussion of these sightings is provided in Appendix B.
Hermes copper (*Lycaena hermes*)	FC None Not Covered Group 1	10.2 acres of suitable habitat	18 acres of suitable habitat	15 acres of suitable habitat	The Proposed Project Amendment would affect suitable Hermes copper butterfly habitat. This impact would be **significant absent mitigation**. Mitigation for direct impacts to potential Hermes copper butterfly habitat includes habitat conveyance and preservation (**M-BI-3** and **M-BI-4**). Implementation of these mitigation measures would reduce direct impacts to suitable Hermes copper butterfly habitat to **less than significant**.
Crotch bumble bee (*Bombus crotchii*)	None Candidate Not Covered None	570.2 acres of potential habitat	801.9 acres of potential habitat	649.1 acres of potential habitat	The Proposed Project Amendment would affect potential Crotch bumble bee. This impact would be **significant absent mitigation.** Mitigation for direct impacts to potential Crotch bumble bee habitat includes habitat conveyance and preservation (**M-BI-3** and **M-BI-4**). Implementation of these mitigation measures would reduce direct impacts to potential Crotch bumble bee habitat to **less than significant.**

Notes: EIR = Environmental Impact Report; MSCP = Multiple Species Conservation Program; RMP = Resource Management Plan; USFWS = U.S. Fish and Wildlife Service.

[1] Impacts to potential habitat for Quino checkerspot butterfly excludes 5.3 acres of development within the City of Chula Vista. The amount of critical habitat reported does not include areas of habitat deemed unsuitable for Quino checkerspot butterfly (i.e., no physical or biological features for the species), and thus not included as a part of protocol surveys.

Federal
BCC: USFWS—Birds of Conservation Concern
FC: Candidate for federal listing as threatened or endangered
FE: Federally listed as endangered

State
FP: CDFW Fully Protected species
SSC: California Species of Special Concern
WL: CDFW Watch List species

MSCP
Covered
Not Covered

County
Group 1 County of San Diego Sensitive Animal List
Group 2 County of San Diego Sensitive Animal List

6.3.32 Discussion

The Proposed Project Amendment's temporary and permanent indirect impacts to special-status wildlife species (BI-10 and BI-11), as well as temporary direct impacts (BI-7), would be similar to those discussed in the Final EIR (County of San Diego 2019). A discussion of the changes to permanent direct impacts on the species listed in Table 4, as they relate to the Proposed Project Amendment, is provided in this section.

Fairy Shrimp

Like the Approved Project and the EIR Land Exchange Alternative, the Proposed Project Amendment has been designed to avoid impacts on features occupied by San Diego fairy shrimp. Therefore, San Diego fairy shrimp is not included in Table 4, which summarizes direct impacts to special-status wildlife species. However, because such features supporting San Diego fairy shrimp may in the future develop in locations where they do not currently exist, the Final EIR included a mitigation measure that requires the project applicant to consult with USFWS to determine whether take authorization is required for impacts to San Diego fairy shrimp suitable habitat (see **M-BI-7** in Chapter 7). This same mitigation measure would apply to the Proposed Project Amendment.

During recent inspection of the Biological Study Area (September and October 2019), project biologists detected five vernal pools within the City of San Diego Cornerstone lands that were previously designated as scour pools, not vernal pools. Project biologists had surveyed this area in the past as part of the biological review for the Approved Project EIR, but the features in question did not at that time exhibit the requisite characteristics of vernal pools (i.e., they did not support vernal pool indicator species). Specifically, in April and June 2014, Dudek biologists assessed the entire project area and mapped potential features (i.e., vernal pools, ephemeral basins, and road ruts) that could support vernal pool branchiopods. As part of this effort, Dudek biologists reviewed the specific on-site microhabitats (e.g., flat topography, soil types, and slopes) along with the potential vernal pool locations provided in the Proctor Valley Vernal Pool Restoration Plan (AECOM and Hogan 2012) and A Report on the Flora of Otay Ranch Vernal Pools, 1990–1991 (Dudek & Associates 1992). The biologists inspected all features for occurrences of vernal pool plant species. After the 2014/2015 wet season survey and the USFWS release of new survey guidelines for listed large branchiopods (adopted May 31, 2015), dry-season sampling was authorized by USFWS and was conducted according to the 2015 guidelines (USFWS 2015).

Due to updates to the USFWS survey guidelines for fairy shrimp and the predicted El Niño conditions for the 2015/2016 wet season, another wet-season survey was conducted within the review area, focusing on potential features that the proposed project might disturb. Again, each potential feature was reviewed for the presence of vernal pool indicator plants and none of the features within the review area supported such plants, including the five scour pools referenced above. Another dry season survey was conducted in 2016.

Through the habitat assessment and 2 years of surveys, Dudek biologists mapped 52 features within the biological study area that met the ponding requirements set forth in the USFWS survey guidelines. The focused surveys resulted in the detection of federally endangered San Diego fairy shrimp within four features in the biological study area: A22, A23, A27, and D4.

In the Biological Technical Report for the Approved Project EIR, Dudek determined which basins within the biological study area qualified as vernal pools. To make this determination, Dudek relied on the criteria set forth in the Report on the Flora of the Otay Ranch Vernal Pools, 1990–1991 (Dudek & Associates 1992). Pursuant to those criteria, a vernal pool requires at least one indicator plant species "whose distribution in coastal California is completely or substantially restricted to vernal pool basins" (Dudek & Associates 1992, p. 5). Based on the 2 years of focused

surveys conducted for the proposed project (described above), none of the surveyed features (road ruts and ephemeral basins) in the biological study area contained vernal pool plant indicator species, and thus none met the applicable criteria discussed above. Accordingly, they were not classified as vernal pools.

During the October 24, 2019, site visit, HELIX, Dudek, and U.S. Army Corps of Engineers staff observed potential vernal pool plant indicators in basins located within the portion of the review area owned by the City of San Diego (i.e., City of San Diego Cornerstone Lands). Although the Proctor Valley Vernal Pool Restoration Plan identified these features as floodplain scour pools (AECOM and Hogan 2012), none of these basins held water long enough to be included within the protocol surveys described above, nor did they contain vernal pool plant species at the time the 2014 surveys were conducted. Dudek revisited these areas on October 30, 2019, to determine the type and extent of vernal pool indicator plants within each feature. During this review, Dudek observed within those basins vernal pool plant species, wetland plant species, and leftover carapaces of Ostracods, a freshwater crustacean species. The basins appear to have been created through a scouring process associated with the main Proctor Valley drainage, and as previously stated, the Proctor Valley Vernal Pool Restoration Plan identified these features as floodplain scour pools (AECOM and Hogan 2012).

All five of these pools are isolated and scoured within the alluvial terraces adjacent to the main flood channel, and their individual watersheds reflect this landscape flow pattern, with most of the pool watersheds concentrated on the upstream side of each mapped pool. For these pools to persist, the input from their watersheds will need to be maintained so that the current hydrological support for these pools is not lost or reduced. Also, the pools will need to be able to outflow at their existing high water level; otherwise, there is potential that the pools will pond too deeply and/or for too long.

The current and approved design for Proctor Valley Road includes a bridge with a proposed span of approximately 282 lineal feet. In order to avoid permanent direct impact to the five pools described above (and their watersheds), the proposed bridge for Proctor Valley Road will increase its span from 282 lineal feet to approximately 702 lineal feet. This increase in span length will allow the bridge to avoid the drainage, including the vernal pools and their watershed (Figure 9, Vernal Pools within City of San Diego Cornerstone Lands). In addition, the bridge pylons would be placed outside of the vernal pools and associated watershed. With this bridge design, the landscape in which these pools occur will be maintained, and the watershed input to the pools, as well as their outflow elevations, will not be altered. The bridge will not be directly over any of the pools and direct impacts to the pools will be avoided during project construction. Based on these facts, the proposed bridge at Proctor Valley Road, and the Proposed Project Amendment as a whole, would avoid impacts to vernal pools and the species that rely on them, which is consistent with the conclusions drawn in the Approved Project EIR. For this reason, the Proposed Project Amendment is likewise consistent with the City of San Diego's Vernal Pool Habitat Conservation Plan (VPHCP). Note, however, that the project applicant must obtain from the City a site development permit and the City, as part of that permitting process, might require additional measures to ensure continued compliance with the VPHCP. Should the City require such additional measures, the project applicant will implement them, along with any other measures the City might impose as conditions of the site development permit. The temporary impacts associated with bridge construction will be restored to pre-project conditions as required by the City's Land Development Code, leaving both the pools and watersheds in place.

Western Spadefoot

The Proposed Project Amendment would disturb 12 features occupied by western spadefoot, 10 of which would be affected by the Approved Project as well. The other 2 features would be affected under the EIR Land Exchange Alternative, which would disturb 8 features in total. Thus, all of the Proposed Project Amendment's impacts to

features occupied by western spadefoot were identified and analyzed in the certified Final EIR as impacts from either the Approved Project or the EIR Land Exchange Alternative. The impacts to western spadefoot would be **potentially significant** for the Proposed Project Amendment. However, by conveying the required acreage of land to the Otay Ranch RMP Preserve (**M-BI-3**), direct impacts to this species would be reduced to **less than significant** for the Proposed Project Amendment.

Golden Eagle

The Proposed Project Amendment would impact a total 538.7 acres of golden eagle foraging habitat; however, it would not result in human activity within 4,000 feet of an active nest or 3,000 feet of a historical nest. As shown in Table 4, this impact to foraging habitat is approximately 242.1 acres less than that of the Approved Project and 57.9 acres less than that of the EIR Land Exchange Alternative. The Proposed Project Amendment's individual impacts on golden eagle, including golden eagle nests and foraging habitat, would be **less than significant**, as golden eagle is a Covered Species under the MSCP and the Proposed Project Amendment is consistent with the MSCP Plan, MSCP County Subarea Plan, and Otay Ranch RMP. Note, however, that the Proposed Project Amendment would preserve foraging/nesting habitat for golden eagle through **M-BI-3** (habitat conveyance and preservation) and **M-BI-4** (biological open space easement). Additionally, **M-BI-5** (permanent fencing and signage) would mitigate for potential long-term impacts by deterring unauthorized human activity within the Otay Ranch RMP Preserve.

Burrowing Owl

For burrowing owl, the Proposed Project Amendment would impact 34.1 acres of potential habitat. In comparison, as shown in Table 4, this is approximately 50 acres less than the amount of burrowing owl habitat affected by the Approved Project and 106 acres less than the EIR Land Exchange Alternative. Although there is suitable habitat for burrowing owls within each of the Project Areas, this species is not expected to occur. Therefore, direct impacts to potential habitat for burrowing owl would be **less than significant** for the Proposed Project Amendment.

Quino Checkerspot Butterfly

For Quino checkerspot butterfly, the Proposed Project Amendment would disturb 527.1 acres of potential habitat and 500.2 acres of critical habitat. A detailed analysis of the Proposed Project Amendment's impacts to Quino checkerspot butterfly host plants is presented on the Figure 8 series, 2016 Quino Host Plant Mapping and Recent Sightings. A full comparison of the Proposed Project Amendment, Approved Project, and EIR Land Exchange Alternative as they relate to Quino checkerspot butterfly habitat assessments and protocol surveys is provided in Appendix B. This is a reduction of 262.3 acres of impacts to potential habitat from the Approved Project and a reduction of 78.4 acres of impacts as compared the EIR Land Exchange Alternative. Impacts to critical habitat are 94.8 acres less for the Proposed Project Amendment as compared to the EIR Land Exchange Alternative. As compared to the Approved Project, impacts to critical habitat are increased by 11.8 acres with the Proposed Project Amendment. Although the acreage of permanent impacts is reduced, the Proposed Project Amendment's impacts to potential habitat for Quino checkerspot butterfly would still be considered **significant absent mitigation**. Mitigation for direct impacts to potential Quino checkerspot butterfly habitat includes habitat conveyance and preservation (**M-BI-3**, **M-BI-4**, and **M-BI-9**), Quino checkerspot butterfly take authorization (**M-BI-8**), and Quino checkerspot butterfly management/enhancement plan (**M-BI-10**). These mitigation measures are fully described in Chapter 7 of this Technical Memorandum. Implementation of these mitigation measures would reduce direct impacts to suitable Quino checkerspot butterfly habitat to **less than significant** for the Proposed Project Amendment. A Quino Checkerspot Butterfly Conservation Strategy, which includes a Framework Management Plan, has been developed by HELIX Environmental prepared in coordination with the applicant, the Wildlife Agencies and the County and is provided as Appendix C. In addition, M-BI-10 has been revised to reflect that the required Quino

checkerspot butterfly management/enhancement plan shall incorporate and be informed by the Quino Checkerspot Conservation Strategy" and "Framework Management Plan, including the performance standards/criteria set forth within it (see Section 7).

Hermes Copper Butterfly

The Proposed Project Amendment would affect suitable Hermes copper butterfly habitat, but to a lesser extent than the Approved Project (10.2 acres as compared to 18 acres) and the EIR Land Exchange Project (10.2 acres as compared to 15 acres). Nevertheless, these impacts would be **significant absent mitigation**. Mitigation for direct impacts to potential Hermes copper butterfly habitat includes habitat conveyance and preservation and/or a biological open space easement (**M-BI-3** and **M-BI-4**). Implementation of these mitigation measures would reduce direct impacts to suitable Hermes copper butterfly habitat to **less than significant**.

Crotch Bumble Bee

The Final EIR did not discuss Crotch bumble bee because, at the time the Final EIR was being prepared, Crotch bumble bee was not a listed species (or a candidate for listing); nor was it among those invertebrates that the County's CEQA Guidelines for Biology required the EIR to study. In June 2019, however, the California Fish and Game Commission voted to make Crotch bumble bee a "candidate" for listing under the California Endangered Species Act (CESA) (CDFW 2019)[5]. Although the Fish and Game Commission has not yet made a final decision to list the Crotch bumble bee, the species' status as a Candidate requires that it be included among the species analyzed in this Technical Memorandum and the Addendum for which it provides support.

Based on Dudek's understanding of regional conditions and species distribution, there is potential for Crotch bumble bee to occur within the Biological Study Area. There is currently no standardized survey methodology for surveying for this species. In the absence of surveys to verify the presence/absence from the biological study area, a habitat assessment can be used to determine the extent of potential habitat loss for this species. Crotch bumble is a generalist and can occur in open grassland and scrub habitats, primarily those with a variety of flowering plant species. Crotch bumble bee has been documented to be most commonly associated with the following plant families: Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae. Given that this species does not have a defined habitat preference, the entire Biological Study Area, with the exception of developed areas, could be considered habitat for this species (Table 4).

The Proposed Project Amendment would affect potential habitat for Crotch bumble bee, but to a lesser extent than the Approved Project (570.2 acres as compared to 801.9 acres) and the EIR Land Exchange Project (570.2 acres as compared to 649.1 acres). Nevertheless, these impacts would be **significant absent mitigation (BI-2)**. Mitigation for direct impacts to potential habitat for Crotch bumble bee includes habitat conveyance and preservation and/or a biological open space easement (**M-BI-3** and **M-BI-4**). Implementation of these mitigation measures would reduce direct impacts to suitable Crotch bumble bee habitat to **less than significant**.

[5] The Fish and Game Commission voted to elevate Crotch bumble bee to a "candidate" on June 12, 2019, but did not issue the Findings of Fact supporting the decision until June 28, 2019, two days after the County certified the Approved Project Final EIR. (See, https://cdfgnews.wordpress.com/2019/07/31/cdfw-seeks-information-related-to-listing-of-bumble-bees/.)

Conclusion

The significance of these potential impacts was determined through application of the County's Significance Guidelines (Guideline 4.1), as described in Section 2.4.3.1, Guideline 4.1: Candidate, Sensitive, or Special-Status Species, of the Final EIR (County of San Diego 2019). The Proposed Project Amendment would not result in any new significant impacts to special-status wildlife species and would not substantially increase the severity of previously identified significant impacts in the certified Final EIR.

6.4 Jurisdictional Wetlands and Waterways

6.4.1 Development Footprint Comparisons

Each of the three development scenarios would affect jurisdictional aquatic resources regulated by CDFW, ACOE, and/or RWQCB (Table 5) (Impact V-21). Impacts associated with the Proposed Project Amendment are shown on the Figure 6 series in this Technical Memorandum. Temporary and permanent indirect impacts (Impacts BI-22 and BI-23) and temporary direct impacts (Impact BI-20) resulting from the Proposed Project Amendment would be similar to the indirect impacts and temporary direct impacts for the Approved Project and EIR Land Exchange Alternative, which were identified in the certified Final EIR (County of San Diego 2019).

Table 5. Impacts to ACOE/RWQCB/CDFW Jurisdictional Aquatic Resources – Development Footprint Comparison (Acres)

	Proposed Project Amendment Impacts		Approved Project Impacts		EIR Land Exchange Alternative Impacts	
Habitat Types/Vegetation Communities	*Perm.*	*Temp.*	*Perm.*	*Temp.*	*Perm.*	*Temp.*
ACOE/RWQCB Wetlands and CDFW Riparian Habitat						
Cismontane alkali marsh (including disturbed)	0.84	0.07	1.04	0.06	0.15	0.32
Coastal freshwater marsh	0.13	0.30	0.12	0.31	0.11	0.32
Mulefat scrub	0.14	0.25	0.09	0.29	0.07	0.35
Southern coast live oak riparian forest	—	—	—	—	—	—
Southern willow scrub	0.10	0.03	0.21	0.06	0.01	0.04
Subtotal	*1.21*	*0.65*	*1.45*	*0.73*	*0.34*	*1.03*
ACOE/RWQCB Non-Wetland Waters and CDFW Streambed						
Unvegetated channel	1.16	0.16	1.27	0.35	1.40	0.18
Open water	—	—	0.16	—	—	—
Subtotal	*1.16*	*0.16*	*1.43*	*0.35*	*1.40*	*0.18*
Total	**2.37**	**0.81**	**2.87**	**1.08**	**1.73**	**1.21**

Notes: ACOE = U.S. Army Corps of Engineers; CDFW = California Department of Fish and Wildlife; EIR = Environmental Impact Report; RWQCB = Regional Water Quality Control Board.

6.4.2 Discussion

Development of the Proposed Project Amendment would result in permanent impacts to a total of 2.37 acres of jurisdictional aquatic resources within the Biological Study Area, as shown in Table 5. Of this 2.37 acres, 1.21 acres are impacts to wetlands/riparian habitat and 1.16 acres are non-wetland waters/streambed. Compared to the Approved Project, the Proposed Project Amendment would reduce permanent impacts to wetlands/riparian habitat by 0.24 acres and non-wetland waters/streambed by 0.27 acres. When compared to the EIR Land Exchange Alternative, the Proposed Project Amendment would impact 0.87 acres more of wetlands/riparian habitat but would result in a reduction of impacts to non-wetland waters/streambed by 0.24 acres. All of the Proposed Project Amendment's permanent impacts to jurisdictional aquatic resources were identified and analyzed in the certified Final EIR as impacts from either the Approved Project or the EIR Land Exchange Alternative. The Proposed Project Amendment's permanent impacts to jurisdictional resources would be **potentially significant**. Permanent direct impacts would be mitigated to less than significant with implementation of **M-BI-21** (federal and state agency permits), described in Chapter 7 of this Technical Memorandum.

In addition, the Proposed Project Amendment would result in temporary impacts to 0.81 acres of jurisdictional aquatic resources within the Biological Study Area, as shown in Table 5. Of this 0.81 acres, 0.65 acres are impacts to wetlands/riparian habitat and 0.16 acres are non-wetland waters/streambed. Compared to the Approved Project, the Proposed Project Amendment would reduce temporary impacts to wetlands/riparian habitat by 0.08 acres and non-wetland waters/streambed by 0.19 acres. When compared to the EIR Land Exchange Alternative, the Proposed Project Amendment would impact 0.38 acres less of wetlands/riparian habitat and 0.02 acres less of non-wetland waters/streambed. All of the Proposed Project Amendment's temporary impacts to jurisdictional aquatic resources were identified and analyzed in the certified Final EIR as impacts from either the Approved Project or the EIR Land Exchange Alternative. The Proposed Project Amendment's temporary impacts to jurisdictional resources would be **potentially significant.** Temporary 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), as described in Chapter 7.

The significance of these potential impacts was determined through application of the County's Significance Guidelines (Guidelines 4.2 and 4.3), as described in Sections 2.4.3.2 and 2.4.3.3 of the Final EIR (County of San Diego 2019). The Proposed Project Amendment would not result in any new significant impacts to jurisdictional aquatic resources and would not substantially increase the severity of previously identified significant impacts in the certified Final EIR.

6.5 Wildlife Movement and Nursery Sites

6.5.1 Development Footprint Comparisons

The Proposed Project Amendment consolidates development within the center of Village 14. Through the proposed land exchange discussed in Chapter 3, development would not occur in Planning Area 16, PV1, and most of PV3 (discussed in the BMO Findings, Appendix ~~C~~ D to this Technical Memorandum). By foregoing development in these areas, the Proposed Project Alternative would allow the regional corridor (R1) and local corridors (L3 and L4) to expand beyond the corridors in the Approved Project (Figure 10, Wildlife Corridor and Habitat Linkages). In addition, with the Proposed Project Amendment, these corridors will significantly exceed the MSCP's 1,000-foot criterion for wildlife corridor design. With development limited primarily to portions of Village 14 and the small area of Planning

Area 19, the surrounding blocks of MSCP Preserve will be more consolidated than what was contemplated in the MSCP County Subarea Plan.

Also under the Proposed Project Amendment, all of PV3 except for an approximately 2-acre area needed for a detention basin would be transferred to CDFW as part of the land exchange. This would preserve a large block of habitat, which CDFW has indicated is pivotal to the protection of wildlife movement corridors. Specifically, CDFW has stated that preservation of PV3 widens the connectivity between occupied Quino checkerspot butterfly habitat to the south (in Otay Ranch Village 13) and to the north in the San Miguel Mountain area. Preservation of PV3 would ensure that Quino checkerspot butterfly could move unimpeded along a lower-elevation route to upper Otay Reservoir, as well through the broader connection to the more rugged ridgeline north of Lower Otay Reservoir. Likewise, inclusion of PV1 in the MSCP Preserve further enhances this unrestricted movement, while eliminating road crossings within L4 by removing an MSCP-Plan-approved road across corridor L4 between PV1 and the approved development footprint in the central portion of Village 14.

As a matter of preserve design, the Proposed Project Amendment, including the land it would convey to the Otay Ranch RMP Preserve, will result in a larger, more unified preserve/open space system with fewer edge effects from the surrounding development areas, providing fewer opportunities for human intrusion (e.g., lighting, trash, noise, and others) into the habitat. The approximately 18.9 miles of preserve/development edge associated with the Approved Project is reduced to approximately 5.8 miles with the Proposed Project Amendment. This is a reduction of approximately 13.1 miles, or nearly 70%, of edge effects. The result is an enhanced MSCP Preserve design.

As a result of the change in bridge design as described in Section 6.3.1, the wildlife crossing at the Proctor Valley drainage, identified as Wildlife Crossing 4 in the Final EIR, would be expanded from 282 lineal feet to 702 lineal feet (Figure 11, Wildlife Crossings). Bridge height would vary from 6 feet on either end near the abutments to 12 feet near the center. The new bridge design will allow for unimpeded wildlife movement throughout the area and expands the openness ratio ((height x width)/length) to 9.5 meters at its highest point. The crossing would meet the MSCP Plan's design criteria guideline of a less than 2:1 length-to-width ratio, and more importantly would exceed the minimum openness ratio of 0.6 meters (see Section 2.4.3.4 of the Final EIR for a through discussion of wildlife movement requirements).

The certified Final EIR did not identify significant direct impacts to wildlife movement or nursery sites as a result of the Approved Project or the EIR Land Exchange Alternative. The direct impacts of the Proposed Project Amendment also would be less than significant.

Like the Approved Project, the Proposed Project Amendment would have **less than significant** temporary and permanent indirect impacts (Impacts BI-27 and BI-28 from the Final EIR) and temporary direct impacts (Impact BI-26 from the Final EIR) on wildlife corridors.

With respect to Biological Resource Core Areas (BRCAs), the Proposed Project Amendment's impacts on BRCAs would be virtually the same as those of the Approved Project. The Project Area, while included in two MSCP-defined BRCAs, does not contain a biological linkage, as depicted on Figure 2-2 of the MSCP. The Proposed Project Amendment, similar to the Approved Project, does not result in the "significant degradation" of a BRCA, a core linkage, or a constrained linkage. Therefore, it does not meet the Subarea Plan definition of an inconsistency because (1) it does not impact 25% of a BRCA and (2) it does not reduce the width of a core linkage or of a constrained linkage below a width of 1,000 feet. An analysis of the Proposed Project Amendment's impacts to BRCAs is provided in Appendix ~~D~~ E to this Technical Memorandum, Biological Resource Core Area Analysis.

6.5.2 Discussion

The significance of potential impacts to wildlife movement and nursery sites was determined through application of the County's Significance Guidelines (Guideline 4.4), as described in Section 2.4.3.1, Guideline 4.4: Wildlife Movement and Nursery Sites, of the Final EIR (County of San Diego 2019). The Proposed Project Amendment would result in **less than significant** impacts to wildlife corridors. As discussed in Section 6.5.1, the Proposed Project Amendment would expand upon wildlife corridors compared to the Approved Project. The Proposed Project Amendment would result in **potentially significant** temporary direct and indirect impacts, similar to impacts identified in the Final EIR (Impacts BI-26, BI-27, and BI-28). A full discussion of those impacts can be found in section 2.4 of the Final EIR. Therefore, the Proposed Project Amendment would not result in any new significant impacts to wildlife movement and nursery sites and would not substantially increase the severity of previously identified significant impacts in the certified Final EIR.

6.6 Local Policies, Ordinances, and Adopted Plans

As discussed in Section 2.4.3.5 of the Final EIR, the Approved Project conforms with the goals and requirements outlined in the MSCP Plan, MSCP County Subarea Plan, Otay Ranch RMP, City of San Diego's MSCP Subarea Plan, and City of Chula Vista MSCP Subarea Plan (County of San Diego 2019). Similarly, implementation of the Proposed Project Amendment would not conflict with these currently established local policies, ordinances, or plans. Biological resources protected under these documents are expected to remain safeguarded, given the compliance of the Proposed Project Amendment with the stipulations indicated in these regulations. A summary of the Proposed Project Amendment's compliance with the above-listed plans is provided in this section.

MSCP Plan and MSCP County Subarea Plan

To confirm the Proposed Project Amendment's consistency with the MSCP Plan, MSCP County Subarea Plan, and Implementing Agreement, the Proposed Project Amendment's Development Footprint and Preserve was reviewed based on these plans. Based on this review, it was determined that the designated areas of Preserve within the Proposed Project Amendment's Project Area are exactly the same as those identified in the MSCP Plan and the MSCP County Subarea Plan and Implementing Agreement. The applicant has not requested—and does not need—an MSCP Preserve boundary adjustment for the Proposed Project Amendment. The Proposed Project Amendment would not encroach into the MSCP Preserve; instead, the Proposed Project Amendment is consistent with the Preserve boundary that was created by the MSCP Plan and the MSCP County Subarea Plan. Given that the Proposed Project Amendment is consistent with the MSCP plans and the "hardline" preserve assumptions identified in the plans, the Proposed Project Amendment can be implemented in a manner consistent with the habitat loss findings set forth in Table 3-5 of the MSCP.

MSCP County Subarea Plan – Roads

Under the MSCP County Subarea Plan, a project that results in take of Covered Species from construction of new or modification of existing Circulation Element road corridors is required to complete a consistency analysis, as outlined in Section 1.9.3.2 of the MSCP County Subarea Plan. A consistency analysis was prepared for the portions of Proctor Valley Road that are currently owned by CDFW (Dudek 2018a, Table 10-2). An MSCP County Subarea Plan consistency analysis for Proctor Valley Road, a County Mobility Element Road, is included in the certified Final EIR. The alignment of Proctor Valley Road was determined to be consistent with the MSCP County Subarea Plan. The alignment of Proctor Valley Road in the Proposed Project Amendment has not changed; therefore, the consistency determination has been completed and is included in the certified Final EIR.

Otay Ranch Resource Management Plan

The Otay Ranch RMP includes conveyance procedures for dedicating parcels of land to the Otay Ranch RMP Preserve. The Otay Ranch RMP establishes an obligation for each new development to convey its fair share of the Preserve. Fair-share contribution requirements are established in the Otay Ranch RMP as a proportion of Ranch-wide development to Ranch-wide Preserve land. The Otay Ranch RMP established a fair-share contribution to the creation of the Preserve as a ratio of 1.188 acres of Preserve conveyance required for every 1 acre of development (City of Chula Vista and County of San Diego 1993b). Accordingly, the conveyance ratio for all development is 1.188 acres for each 1 acre of the Proposed Project Amendment 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.

The Proposed Project Amendment's required conveyance to the Otay Ranch RMP Preserve is ~~558.7~~556.6 acres, as explained below. Common uses not subject to conveyance for the Proposed Project Amendment would include 10.2 acres of public parks, the 9.9-acre elementary school[6], 19.9 acres of major circulation, the 2.3-acre public safety site, and a water tank (1.4 acres). Areas of Conserved Open Space (24.5 acres) are also excluded from the conveyance total. The Proposed Project Amendment's total impacts, less these common areas and Conserved Open Space, would be ~~470.3~~468.5 acres. Therefore, developable land within the Project Area is subject to a conveyance obligation of ~~558.7~~556.6 acres (~~470.3~~468.5 acres × 1.188 = ~~558.7~~556.6 acres).

The Proposed Project Amendment's obligation would be partially satisfied through on-site conveyance of the Otay Ranch RMP Preserve, which totals 377 acres. The remaining conveyance obligation would be met through off-site Otay Ranch RMP Preserve in Planning Area 16 (58.3 acres), Conserved Open Space (24.5 acres), and a conservation easement over land designated as development in Planning Area 16 (191.5 acres), for a total of 274.3 acres.

This combination of transfers to the Preserve Owner/Manager (POM) results in a total Preserve conveyance of 626.7 acres, which is substantially more than what the RMP requires (~~558.7~~556.6 acres). Therefore, upon conveyance to the Otay Ranch RMP Preserve, the Proposed Project Amendment would be consistent with the Otay Ranch RMP in accordance with the Otay Ranch RMP conveyance requirement.

City of San Diego MSCP Subarea Plan – Cornerstone Lands

Under the Proposed Project Amendment, the portion of Proctor Valley Road within City of San Diego Cornerstone Lands would follow the same alignment identified for the Approved Project. As such, the siting criteria evaluation for that portion of Proctor Valley Road (see Table 10-3 of Dudek 2018a) would remain the same. However, the improvements to this portion of the road have been re-evaluated for the Proposed Project Amendment and, while the alignment and overall footprint of Proctor Valley Road is the same, approximately 3.3 acres which were considered temporary impacts in the Final EIR for the Approved Project have been re-classified as permanent impacts, since the affected area cannot be adequately revegetated. Consequently, the permanent impacts to resources have increased by 3.3 acres, while temporary impacts have correspondingly been reduced by the same amount. The permanent impacts to vegetation communities resulting from the Approved Project and the Proposed Project Amendment are listed in Table 6. Once complete, the redesigned bridge within City lands, as discussed in Section 6.3.1, would actually result in less biological impacts than the design proposed under the Approved Project. The bridge would expand from 282 lineal feet to 702 lineal feet and would reduce the need for additional fill and slopes associated with the previous design.

[6] If the school site is not developed as a school it will revert to the underlying residential zoning designation and the area would be included in the required conveyance.

While the quantity of mitigation acreage has increased (see Table 6), the overall mitigation requirements for impacts within City of San Diego Cornerstone lands as described in the Final EIR remain the same and impacts would be mitigated to a less than significant level.

Table 6. Mitigation Requirements for Permanent Impacts to City of San Diego (Cornerstone Lands)

Vegetation Community	Permanent Impacts (acres)		Mitigation Ratio	Required Mitigation (acres)[a]	
	Proposed Project Amendment	Approved Project		Proposed Project Amendment	Approved Project
Upland					
Diegan coastal sage scrub (including disturbed)	8.0	6.6	1:1	8.0	6.6
Diegan coastal sage scrub – *Baccharis*-dominated (including disturbed)	0.4	0.4	1:1	0.4	0.4
Non-native grassland	4.1	2.6	1:1	4.1	2.6
Southern mixed chaparral	1.7	1.4	1:1	1.7	1.4
Wetlands					
Mulefat scrub	0.1	0.1	2:1	0.2	0.2
Unvegetated channel	<0.1	<0.1	2:1	0.1	0.1
No Mitigation Required					
Urban/developed	0.5	0.3	None	0	0
Disturbed habitat	0.7	0.6	None	0	0
			Total impacts requiring mitigation	**14.4**	**11.1**
			Total required mitigation	**14.5**	**11.3**

Note:

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

City of San Diego Site Development Permit Application and VPHCP

As mentioned in Section 6.3.1, the project applicant is processing a site development permit application through the City. Through the site development permit process, which the applicant initiated in December 2017, the project applicant will comply with the City's Land Development Code, VPHCP, and Subarea Plan, including any conditions that may be required by the site development permit. Specific to compliance with the City's VPHCP, as described in the Final EIR, in order to avoid any direct impacts to vernal pools, the project applicant will relocate the northern portion of Proctor Valley Road that is within City jurisdiction from the center of a vernal pool restoration site and realign the road to the east. As described in Section 6.3.1, upon the recent discovery of vernal pools within the road alignment located within the City's jurisdiction, the project applicant has redesigned the road to create a longer bridge that extends over the Proctor Valley drainage as well as all five vernal pools and their watersheds. The Proposed Project Amendment would thus avoid all direct impacts to vernal pools and is therefore in compliance with the VPHCP.

City of Chula Vista MSCP Subarea Plan

Under the Proposed Project Amendment, the portion of Proctor Valley Road within the City of Chula Vista would follow the same alignment as the Approved Project. There are no changes to the impacts reported in the Biological

Resources Technical Report for the Approved Project. The certified Final EIR included an analysis of the Approved Project's consistency with the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003) and found it to be consistent. Therefore, the Proposed Project Amendment would be consistent.

County of San Diego Biological Mitigation Ordinance

Because the Approved Project contemplated development within PV1, PV2, and PV3, a BMO consistency analysis was prepared for impacts anticipated to occur on those three parcels. The Proposed Project Amendment excludes development on all of PV1 and reduces development within PV3 by 96%, but does contemplate development on PV2. A BMO Findings has been prepared for the Proposed Project Amendment to address impacts in PV2 and PV3 (Appendix ~~C~~D). Table 1 of the BMO consistency findings report quantifies the sensitive vegetation impacts anticipated with proposed development of PV2 and PV3, and also describes the required mitigation for those impacts (Appendix ~~C~~D). The BMO consistency analysis prepared for the Proposed Project Amendment demonstrates compliance with the BMO requirements.

Conclusion

The Final EIR determined that the Approved Project and the EIR Land Exchange Alternative would not conflict with the MSCP Plan, MSCP County Subarea Plan, Otay Ranch RMP, City of San Diego MSCP Subarea Plan, or City of Chula Vista MSCP Subarea Plan (see Section 2.4.3.5 of the Final EIR and Section 10 of the biological resources technical reports prepared for the Approved Project and the EIR Land Exchange Alternative). The additional analysis provided herein confirms that the Proposed Project Amendment likewise would not conflict with the goals and requirements outlined in these plans. Consequently, the Proposed Project Amendment would not result in any significant impact in terms of consistency with applicable conservation plans.

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7 Mitigation Measures

The mitigation measures required for the Proposed Project Amendment are very similar to those required for the Approved Project and the EIR Land Exchange Alternative. The discussion below includes *all* of the mitigation measures for impacts to biological resources from the Final EIR, including one additional mitigation measure that was only applicable to the EIR Land Exchange Alternative, which is now also applicable to the Proposed Project Amendment. Any revisions to those measures as required for the Proposed Project Amendment, such as changes in the conveyance acreage and location, are shown in strikeout/underline. All of the mitigation measures in this section would be required for the Proposed Project Amendment.

Mitigation Measure BI-1 (M-BI-1)

M-BI-1 application to the Proposed Project Amendment: Mitigation measure M-BI-1 applies to the Proposed Project Amendment. No revisions to M-BI-1 are needed. The full mitigation measure from the Final EIR is provided below.

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.

Mitigation Measure BI-2 (M-BI-2)

M-BI-2 application to the Proposed Project Amendment: Mitigation measure M-BI-2 applies to the Proposed Project Amendment. No revisions to M-BI-2 are needed. The full mitigation measure from the Final EIR is provided below.

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.

Mitigation Measure BI-3 (M-BI-3)

M-BI-3 application to the Proposed Project Amendment: Mitigation measure M-BI-3 applies to the Proposed Project Amendment; however, the acreage calculations and references to PV1, PV2, and PV3 within M-BI-3 require revisions as follows:

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/or annex the Project Area into a County-administered Community Facilities District to fund 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 development phase, 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. Based on the analysis in the ~~Draft~~ Addendum to the Final EIR, it is anticipated that the Proposed Project Amendment would be required to convey a total of ~~776.8~~ 556.6 acres, ~~426.7~~ 377 acres of which is anticipated to be conveyed on site ~~within Village 14 and Planning Areas 16/19~~. The actual conveyance will be based on the 1.188 mitigation ratio as determined at Final Map. The remaining acres of required conveyance would be met through off-site ~~acquisitions~~ conveyances to the Otay Ranch RMP Preserve in Planning Area 16 (58.3 acres) ~~within the Otay Ranch RMP, which would then be conveyed to the Otay Ranch RMP Preserve~~ and a conservation easement over land designated for development in Planning Area 16 (191.5 acres). The total habitat preservation (626.7 acres) would exceed the acreage required by the mitigation ratio, as defined in the Otay Ranch RMP. In addition, the BMO ~~analysis~~ Findings determined mitigation requirements for areas subject to the BMO (~~PV1,~~ PV2 and a 6.1-acre portion of PV3) are more stringent for certain types of habitat than the Otay Ranch RMP Preserve Conveyance Obligation. Accordingly, the BMO ~~analysis~~ Findings identified an additional ~~24.6~~ 11.4 acres of mitigation, beyond the ~~203.5~~ 52.4 acres required by the Otay Ranch RMP Preserve Conveyance Obligation, for impacts in ~~PV1,~~ PV2 and a portion of PV3, for a total of ~~228.1~~ 63.8 acres. The mitigation provided for impacts to ~~PV1,~~ PV2, and a portion of PV3 would be like-kind or up-tiered habitat.

Mitigation Measure BI-4 (M-BI-4)

M-BI-4 application to the Proposed Project Amendment: Mitigation measure M-BI-4 applies to the Proposed Project Amendment. No revisions to M-BI-4 are needed.

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~~ Findings. 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:

- 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.
- The biological open space easements shall be dedicated to ensure that the land is protected in perpetuity.
- A resource manager shall be selected and evidence provided by the applicant as to the acceptance of this responsibility by the proposed resource manager.
- 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.
- A contract between the applicant and County shall be executed for the implementation of the RMP.
- 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.

Mitigation Measure BI-5 (M-BI-5)

M-BI-5 application to the Proposed Project Amendment: Mitigation measure M-BI-5 applies to the Proposed Project Amendment. No revisions to M-BI-5 are needed.

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

Planning Areas 16/19 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 Planning Areas 16/19 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."

Mitigation Measure BI-6 (M-BI-6)

M-BI-6 application to the Proposed Project Amendment: Mitigation measure M-BI-6 applies to the Proposed Project Amendment. No revisions to M-BI-6 are needed.

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.

Mitigation Measure BI-7 (M-BI-7)

M-BI-7 application to the Proposed Project Amendment: Mitigation measure M-BI-7 applies to the Proposed Project Amendment. No revisions to M-BI-7 are needed.

M-BI-7 **San Diego Fairy Shrimp Take Authorization.** The Project Applicant shall consult with the USFWS to determine if take authorization is required for impacts to San Diego fairy shrimp suitable habitat. If such take authorization is required, the Proposed Project Applicant or its designee 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. If required as a permit condition, 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.

Mitigation Measure BI-8 (M-BI-8)

M-BI-8 application to the Proposed Project Amendment: Mitigation measure M-BI-8 applies to the Proposed Project Amendment. No revisions to M-BI-8 are needed.

M-BI-8 **Quino Checkerspot Butterfly Take Authorization.** The Project Applicant shall consult with the USFWS to determine if take authorization is required for impacts to Quino checkerspot. If such take authorization is required, the Proposed Project Applicant or its designee 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. If required as a permit condition, 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.

Mitigation Measure BI-9 (M-BI-9)

M-BI-9 application to the Proposed Project Amendment: Mitigation measure M-BI-9 applies to the Proposed Project Amendment; however, the acreage calculations within M-BI-9 require revisions as follows:

M-BI-9 **Quino Checkerspot Butterfly Habitat Preservation.** The Proposed Project shall convey ~~350.7~~ 345.3 acres of potential habitat for Quino checkerspot butterfly on site. In addition, per M-BI-4, a biological open space easement shall be placed over ~~72.4~~ 24.5 acres of potential habitat within Conserved Open Space. Additional preservation of suitable habitat is provided by off-site Otay Ranch RMP Preserve in Planning Area 16 (58.3 acres) and a conservation easement over land designated for development in Planning Area 16 (191.5 acres). Therefore, ~~477.2~~ 619.6 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.

Mitigation Measure BI-10 (M-BI-10)

M-BI-10 application to the Proposed Project Amendment: Mitigation measure M-BI-10 applies to the Proposed Project Amendment. M-BI-10 has been revised as follows to exclude the need for focused surveys within the Otay Ranch RMP Preserve and Conserved Open Space because off-site conveyance obligation has been removed and therefore these surveys are no longer necessary and to reference the Quino Checkerspot Conservation Strategy and Framework Management Plan which has been developed in coordination with the Wildlife Agencies.

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 ("QCB Management Plan"). The QCB Management Plan shall be based on, and incorporate the performance criteria/standards set forth in, the February 2020 "Quino Checkerspot Conservation Strategy" and "Framework Management Plan", which HELIX Environmental prepared in cooperation with the applicant, the County, the United States Fish and Wildlife Service, and the California Department of Fish and Wildlife. ~~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 QCB Management Plan~~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. Note, however, that should the applicant rely on a future County Multiple Species Conservation Program Subarea Plan Quino Checkerspot Butterfly Addition for take authorization, the QCB Management Plan~~The Quino Checkerspot Butterfly Management/ Enhancement Plan shall~~ may either be superseded by or rendered unnecessary upon completion and adoption of such~~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.

Mitigation Measure BI-11 (M-BI-11)

M-BI-11 application to the Proposed Project Amendment: This mitigation measure is applicable to the Proposed Project Amendment; however, the impacts and acreages within M-BI-11 require revisions as shown in strikeout/underline. In addition, this project specific mitigation measure has been revised to capture how the Proposed Project Amendment would comply with the mitigation measures for biological resources in the 1993 Otay Ranch GDP/SRP Program EIR. Section 2.1 of the Final EIR for the Approved Project provides a comprehensive Mitigation Monitoring Program Compliance table outlining how the Approved Project complies with each of the

mitigation measures from the Program EIR. The "Mitigation Requirement Source" heading of the table embedded within the measure clearly states the source for compliance (Otay Ranch RMP/Program EIR, City requirement, and/or BMO Findings).

M-BI-11 **Biological Resource Salvage and Restoration Plan(s).** Mitigation requirements for the Proposed Project's impacts on special-status plants are based on the biological analysis for the Proposed Project Amendment ~~within Sections 5.2 and 6.2.2.1 (Impact SP-2) of this report,~~ and the Biological Mitigation Ordinance analysis ~~provided in Appendix A~~. Prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable sensitive biological resources, including San Diego goldenstar~~, variegated dudleya, San Diego barrel cactus,~~ and 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 Salvage and Restoration Plan. The Resource Salvage and Restoration Plan shall be prepared by a biologist approved by the City of Chula Vista and County of San Diego, to the satisfaction of the Development Services Directors (or her/his designee) and in conjunction with the POM. Mitigation ratios for impacts to plant populations subject to the BMO are more robust than those required under the RMP. The mitigation for impacts to species and vegetation communities subject to the RMP, BMO, and the City of Chula Vista and County of San Diego subarea plans shall be as follows:

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

Species Common Name (Scientific Name) or Vegetation Community	Impacts	Mitigation Requirement Source	Mitigation Ratio	Mitigation Provided/RMP Requirements
San Diego goldenstar (*Bloomeria clevelandii*)	727 individuals	RMP salvage and translocation requirement	1:1	727 individuals
San Diego marsh-elder (*Iva hayesiana*)	228 individuals	BMO Findings	1:1	228 individuals
	33 individuals	Off-site impacts in City of Chula Vista and City of San Diego	1:1	33 individuals
San Diego marsh-elder within drainages	0.48 acres	RMP restoration and translocation requirement	2:1	0.96 acres
Munz's sage-dominated coastal sage scrub	0 acres	RMP restoration requirement	2:1	N/A

Species Common Name (Scientific Name) or Vegetation Community	Impacts	Mitigation Requirement Source	Mitigation Ratio	Mitigation Provided/RMP Requirements
San Diego County viguiera-dominated coastal sage scrub	0 acres	RMP restoration requirement	2:1	N/A

The Resource Salvage and Restoration Plan will also include compliance with the mitigation standards set forth in the RMP, including those related to restoration and translocation for San Diego goldenstar (translocation ~~758~~ 727 of impacted individuals)~~,~~ and San Diego marsh-elder in drainages (~~0.65~~ 0.48 acres of impacts at a 2:1 ratio). ~~, and San Diego County needle grass (translocation of 93 impacted individuals). The mitigation requirements for variegated dudleya and San Diego barrel cactus are satisfied with the BMO mitigation requirements.~~

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 San Diego goldenstar~~, San Diego County needle grass, 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 within the Otay Ranch RMP Preserve. 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 San Diego goldenstar~~, variegated dudleya and San Diego barrel cactus~~, the Biological Resource Salvage and Restoration Plan ~~shall~~ may also include additional plantings of these species as necessary to achieve a ~~3:1 and 2:1~~ 1:1 mitigation ratio~~, respectively~~ (see the table above). ~~If populations of San Diego marsh-elder, and Robinson's pepper-grass are found within the off-site mitigation, preservation of these populations may be used for mitigation instead of restoration activities. As required per RMP Policy 3.2, the Project Applicant will coordinate with the POM to meet the restoration requirements for Munz's sage and San Diego viguiera dominated coastal sage scrub. This may require a separate plan than Biological Resource Salvage and Restoration Plan.~~

Mitigation Measure BI-12 (M-BI-12)

M-BI-12 application to the Proposed Project Amendment: Mitigation measure M-BI-12 applies to the Proposed Project Amendment; however, the impacts and acreages within M-BI-12 require revisions as follows:

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 14.1 acres of temporary impacts to sensitive resources. ~~and~~ of which

~~6.6~~9.3 acres are within the Otay Ranch Resource Management Plan (RMP) Preserve. Within Planning Areas 16/19, there would be ~~3.4~~ 4.3 acres of temporary impacts, of which 3.4 acres are within the Otay Ranch RMP Preserve. Off-site temporary impacts to sensitive resources would total ~~49.4~~ 38.6 acres: 2.4 acres of temporary impacts to City of Chula Vista land and~~, 21.1~~ 17.8 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% relative native cover 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.

Mitigation Measure BI-13 (M-BI-13)

M-BI-13 application to the Proposed Project Amendment: Mitigation measure M-BI-13 applies to the Proposed Project Amendment. No revisions to M-BI-13 are needed.

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.

Mitigation Measure BI-14 (M-BI-14)

M-BI-14 application to the Proposed Project Amendment: Mitigation measure M-BI-14 applies to the Proposed Project Amendment. No revisions to M-BI-14 are needed.

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.

Mitigation Measure BI-15 (M-BI-15)

M-BI-15 application to the Proposed Project Amendment: Mitigation measure M-BI-15 applies to the Proposed Project Amendment without change. No revisions to M-BI-15 are needed.

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.

Mitigation Measure BI-16 (M-BI-16)

M-BI-16 application to the Proposed Project Amendment: Mitigation measure M-BI-16 applies to the Proposed Project Amendment. No revisions to M-BI-16 are needed.

M-BI-16 **Prevention of Invasive Plant Species.** A County of San Diego (County)–approved plant list, as described in the Preserve Edge Plan, shall be used for areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve shall be planted with native species that reflect the adjacent

native habitat. A hydroseed mix that incorporates native species, is appropriate to the area, and is without invasive species shall be used for slope stabilization in transitional areas. Per the Preserve Edge Plan, only County-approved vegetation shall be planted in streetscapes or within the 100-foot "edge" between development and the Otay Ranch Resource Management Plan Preserve.

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

Mitigation Measure BI-17 (M-BI-17)

M-BI-17 application to the Proposed Project Amendment: Mitigation measure M-BI-17 applies to the Proposed Project Amendment. No revisions to M-BI-17 are needed.

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. In addition, use of rodenticides will not be allowed within the 100-foot Preserve edge.

Mitigation Measure BI-18 (M-BI-18)

M-BI-18 application to the Proposed Project Amendment: Mitigation measure M-BI-18 applies to the Proposed Project Amendment. No revisions to M-BI-18 are needed.

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.

Mitigation Measure BI-19 (M-BI-19)

M-BI-19 application to the Proposed Project Amendment: Mitigation measure M-BI-19 applies to the Proposed Project Amendment. Minor revisions to the mitigation measure are required, as follows:

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 and the Fire Protection Plan Technical Memorandum for the Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment shall be implemented in conjunction with development of the Proposed Project Amendment.

Mitigation Measure BI-20 (M-BI-20)

M-BI-20 application to the Proposed Project Amendment: Mitigation measure M-BI-20 applies to the Proposed Project Amendment. No revisions to M-BI-20 are needed.

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.

Mitigation Measure BI-21 (M-BI-21)

M-BI-21 application to the Proposed Project Amendment: Mitigation measure M-BI-21 applies to the Proposed Project Amendment. No revisions to M-BI-21 are required.

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.

Mitigation Measure BI-22 (M-BI-22)

M-BI-22 application to the Proposed Project Amendment: Due to differing habitat impacts, mitigation measure M-BI-22 was not included in the Approved Project but was included as a mitigation measure for the EIR Land Exchange Alternative (M-BI-12 in the Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19 Land Exchange Alternative; Dudek 2018b). Mitigation measure M-BI-22 applies to the Proposed Project Amendment. No revisions to M-BI-22 are required.

M-BI-22 **Preconstruction Bat Surveys.** No earlier than 30 days prior to the commencement of construction activities for each construction area, a preconstruction survey shall be conducted by a biologist to determine whether active roosts of special-status bats (including maternity roosts, non-maternity roosts, and winter hibernacula) are present in the eucalyptus trees in Village 14 Development Footprint. If roosts are detected during preconstruction surveys, the following avoidance measures will be implemented unless relocation and/or take is authorized under CESA, as required by applicable law.

Maternity Roosts. If an active maternity roost is identified in these areas, the maternity roost will not be directly disturbed, and some construction activities, such as mass-grading or other activities involving heavy equipment, within 300 feet of the maternity roost may be postponed or halted until the maternity roost is vacated and juveniles have fledged, as determined by the project biologist. The rearing season for native bat species in California is approximately April 1 through August 31.

Hibernacula or Non-Maternity Roosts. If non-breeding bat roosts (hibernacula or non-maternity roosts) are found within the disturbance zone, the individuals shall be safely evicted, under the direction of the project biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the project biologist (e.g., installation of one-way doors). If flushing species from tree roosts is required, this shall be done when temperatures are sufficiently warm for bats to exit the roost, because bats do not typically leave their roost daily during winter months. In situations requiring one-way doors, a minimum of 1 week shall pass after doors are installed and temperatures should be sufficiently warm (for winter hibernacula) for bats to exit the roost. This action should allow all bats to leave during the course of 1 week. If a roost needs to be removed and the project biologists determines that the use of one-way doors is not necessary, the roost shall first be disturbed following the direction of the project biologist at dusk to allow bats to escape during the darker hours. Once the bats escape, the roost site shall be removed or the construction disturbance shall occur the next day (i.e., there shall be no less or more than 1 night between initial disturbance and the roost removal).

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8 Summary of Project Impacts and Mitigation

Chapters 6 and 7 summarized the biological impacts and associated mitigation for each significant impact that may occur as a result of the Proposed Project Amendment. Table 7 summarizes the Proposed Project Amendment's impacts to special-status species, vegetation communities, and jurisdictional areas and identifies the recommended mitigation measures for those impacts.

Table 7. Summary of Proposed Project Amendment Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Wetlands and Waterways

Final EIR Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	County Guideline Number and Letter[a]
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.					
Preventive Measure	Potential Habitat for San Diego Fairy Shrimp	None	M-BI-7 (San Diego fairy shrimp take authorization)	Less than significant	4.1.A
BI-1	Quino Checkerspot Butterfly Suitable Habitat	Permanent Direct	M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage) M-BI-8 (Quino checkerspot butterfly take authorization) M-BI-9 (Quino checkerspot butterfly habitat preservation) M-BI-10 (Quino checkerspot butterfly management/ enhancement plan)	Less than significant	4.1.A
BI-2	Habitat for Special-Status Wildlife Species	Permanent Direct	M-BI-1 (biological monitoring) M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage) M-BI-6 (nesting bird survey) M-BI-13 (burrowing owl preconstruction) M-BI-22 (preconstruction bat survey)	Less than significant	4.1.A 4.1.B

Table 7. Summary of Proposed Project Amendment Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Wetlands and Waterways

Final EIR Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	County Guideline Number and Letter[a]
BI-3	Hermes Copper Butterfly Suitable Habitat	Permanent Direct	M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage)	Less than significant	4.1.A
BI-4	Special-Status Plant Species (County List A and B Species)	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing)	Less than significant	4.1.B
BI-5	Special-Status Plant Species (County List A and B Species)	Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-11 (biological resource salvage plan)	Less than significant	4.1.B
BI-6	Golden Eagle	Permanent Direct	M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage)	Less than significant	4.1.E
BI-7	Habitat for Special-Status Wildlife Species	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-6 (nesting bird survey) M-BI-12 (restoration of temporary impacts) M-BI-18 (noise)	Less than significant	4.1.A 4.1.B
BI-8	Direct Loss of Birds under the MBTA	Permanent Direct	M-BI-1 (biological monitoring) M-BI-6 (nesting bird survey)	Less than significant	4.1.A 4.1.B
BI-9	Special-Status Plant Species	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-17 (prevention of chemical pollutants)	Less than significant	4.1.H

Table 7. Summary of Proposed Project Amendment Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Wetlands and Waterways

Final EIR Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	County Guideline Number and Letter[a]
BI-10	Special-Status Wildlife Species	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species) M-BI-17 (prevention of chemical pollutants) M-BI-18 (noise)	Less than significant	4.1.H 4.1.L
BI-11	Special-Status Wildlife Species	Permanent Indirect	M-BI-5 (permanent fencing and signage) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species) M-BI-18 (noise) M-BI-19 (fire protection) M-BI-20 (lighting)	Less than significant	4.1.H
BI-12	Special-Status Plant Species	Permanent Indirect	M-BI-5 (permanent fencing and signage M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species) M-BI-17 (prevention of chemical pollutants) M-BI-19 (fire protection)	Less than significant	4.1.H
Guideline 4.2: The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.					
BI-13	Sensitive Vegetation Communities – Project Area	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits	Less than significant	4.2.A

Table 7. Summary of Proposed Project Amendment Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Wetlands and Waterways

Final EIR Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	County Guideline Number and Letter[a]
BI-14	Sensitive Vegetation Communities – Village 14 and Planning Areas 16/19	Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage M-BI-21 (federal and state agency permits)	Less than significant	4.2.A
BI-15	City of San Diego MSCP Cornerstone Lands	Temporary and Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-4 (biological open space easement) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits	Less than significant	4.2.A
BI-16	Lands within City of Chula Vista	Temporary and Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits)	Less than significant	4.2.A
BI-17	Off-Site Private Lands	Temporary and Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts)	Less than significant	4.2.A
BI-18	County of San Diego Road Easement	Temporary and Permanent Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts)	Less than significant	4.2.A

Table 7. Summary of Proposed Project Amendment Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Wetlands and Waterways

Final EIR Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	County Guideline Number and Letter[a]
BI-20	Jurisdictional Aquatic Resources – Project Area	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts) M-BI-21 (federal and state agency permits	Less than significant	4.2.B
BI-21	Jurisdictional Aquatic Resources – Project Area	Permanent Direct	M-BI-21 (federal and state agency permits	Less than significant	4.2.B
BI-22	Jurisdictional Aquatic Resources – Project Area	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-17 (prevention of chemical pollutants)	Less than significant	4.2.B
BI-23	Jurisdictional Aquatic Resources – Project Area	Permanent Indirect	M-BI-5 (permanent fencing and signage M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-16 (prevention of invasive plant species) M-BI-17 (prevention of chemical pollutants)	Less than significant	4.2.B
BI-24	Sensitive Vegetation Communities – Project Area	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-4 (biological open space easement) M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control) M-BI-17 (prevention of chemical pollutants) M-BI-21 (federal and state agency permits	Less than significant	4.2.D
BI-25	Sensitive Vegetation Communities – Project Area	Permanent Indirect	M-BI-5 (permanent fencing and signage M-BI-14 (SWPPP) M-BI-15 (erosion and runoff control)	Less than significant	4.2.D

Table 7. Summary of Proposed Project Amendment Impacts and Mitigation for Special-Status Species, Vegetation Communities, and Jurisdictional Wetlands and Waterways

Final EIR Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	County Guideline Number and Letter[a]
			M-BI-16 (prevention of invasive plant species) M-BI-17 (prevention of chemical pollutants) M-BI-19 (fire protection)		
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.					
BI-26	Habitat Connectivity and Wildlife Corridors	Temporary Direct	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-12 (restoration of temporary impacts)	Less than significant	4.4.A
BI-27	Habitat Connectivity and Wildlife Corridors	Temporary Indirect	M-BI-1 (biological monitoring) M-BI-2 (temporary construction fencing) M-BI-18 (noise) M-BI-20 (lighting)	Less than significant	4.4.D
BI-28	Habitat Connectivity and Wildlife Corridors	Permanent Indirect	M-BI-3 (habitat conveyance and preservation) M-BI-4 (biological open space easement) M-BI-5 (permanent fencing and signage) M-BI-18 (noise) M-BI-20 (lighting)	Less than significant	4.4.D

[a] **Source:** County of San Diego 2010.

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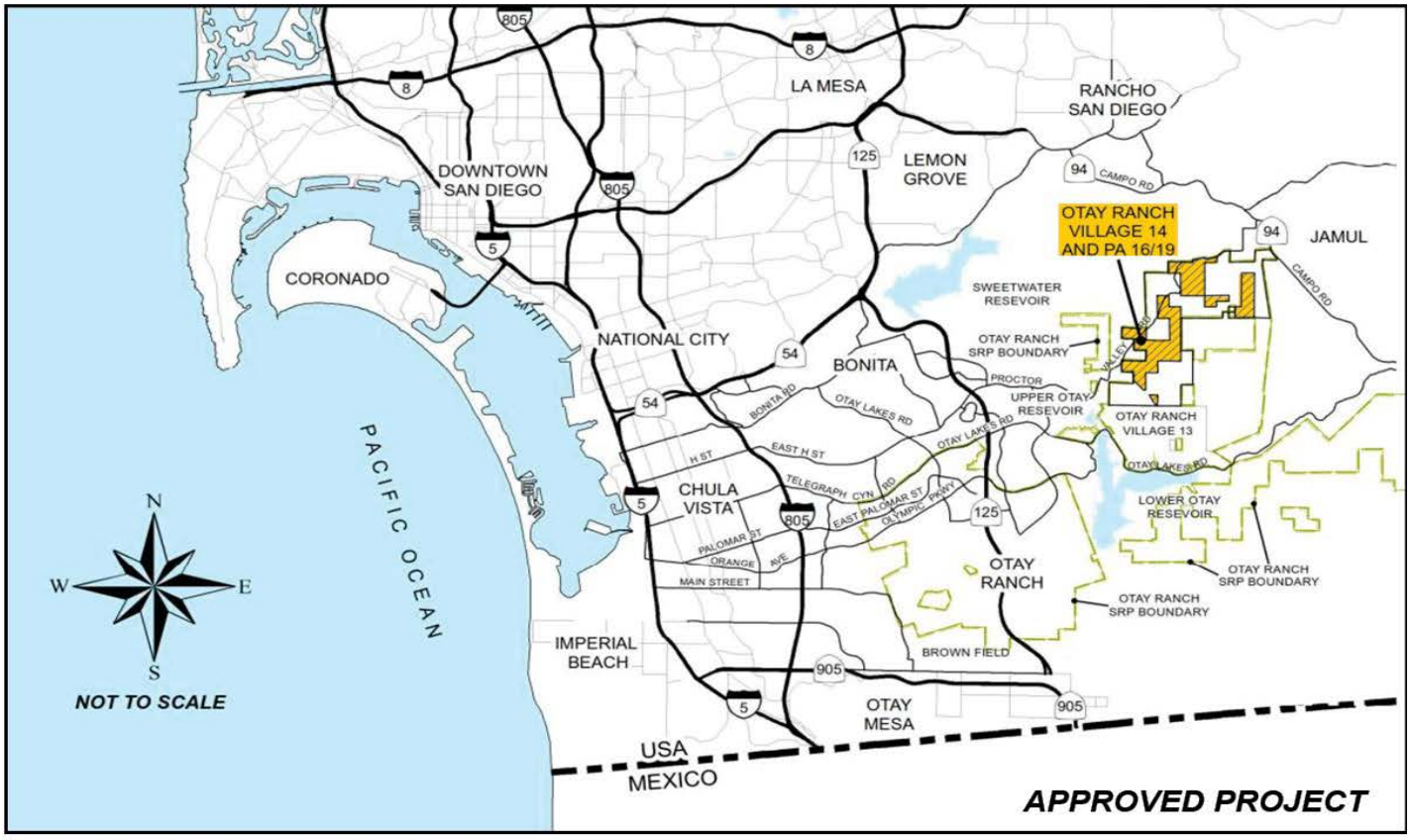
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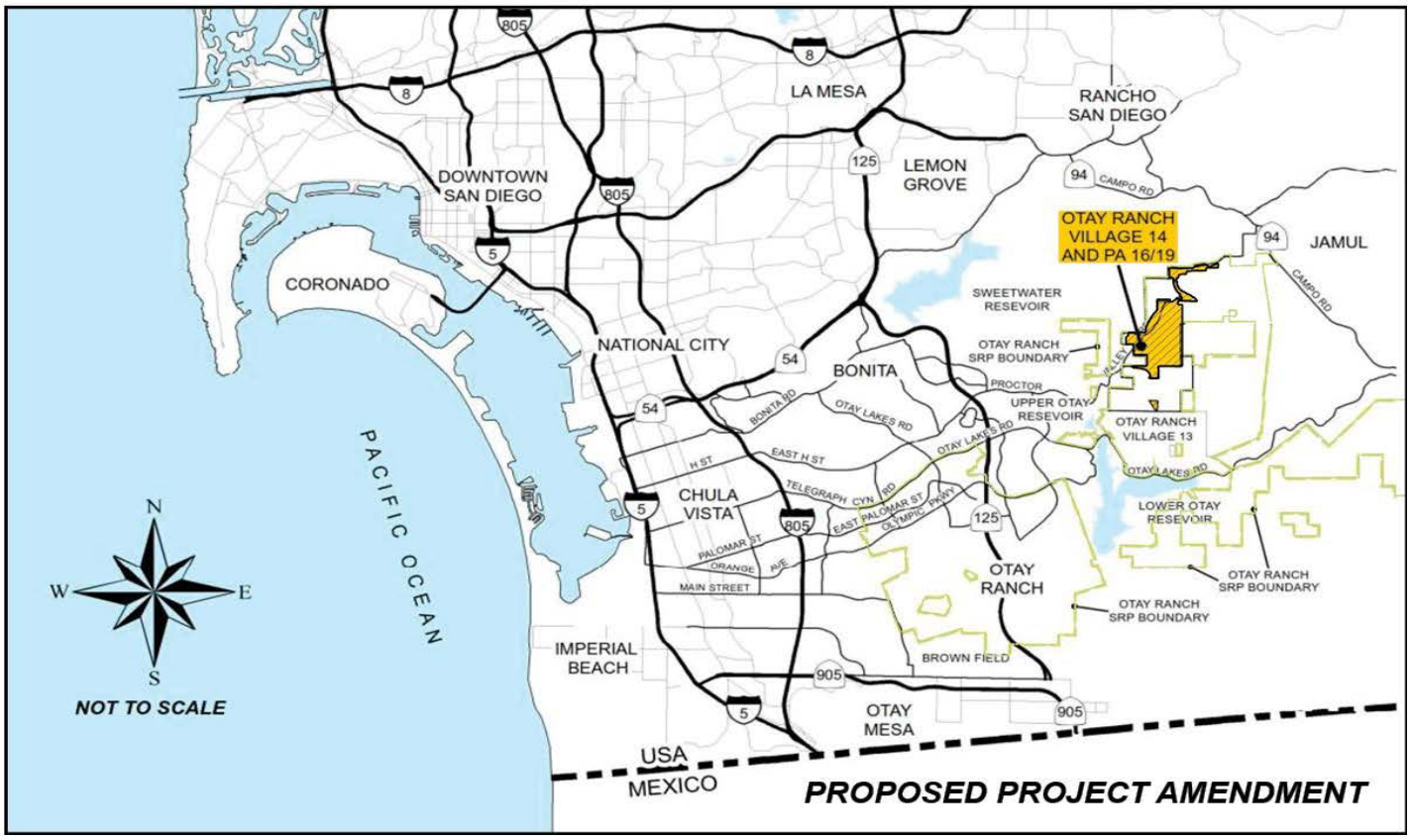
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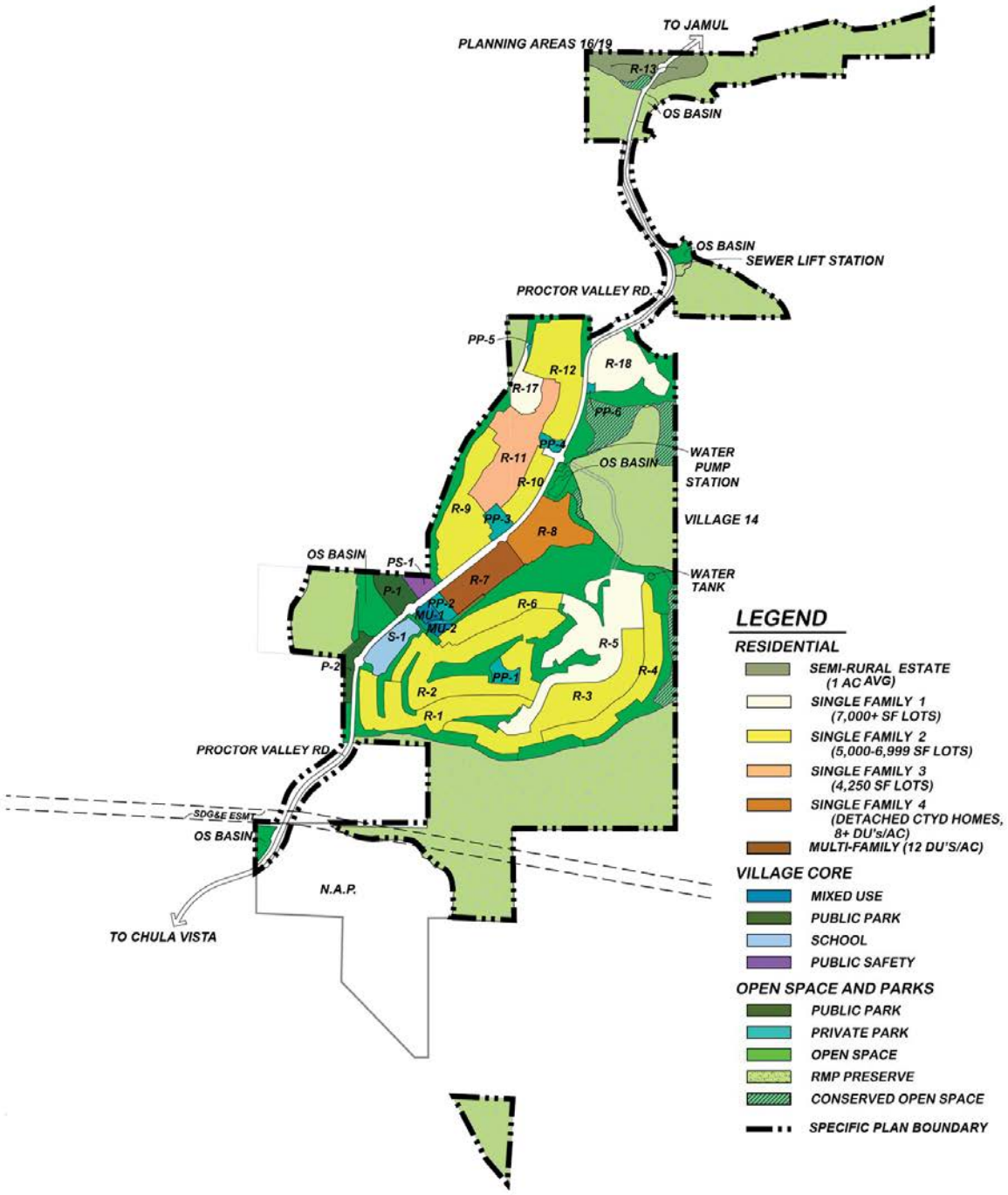




SOURCE: Hunsaker 2019

FIGURE 1

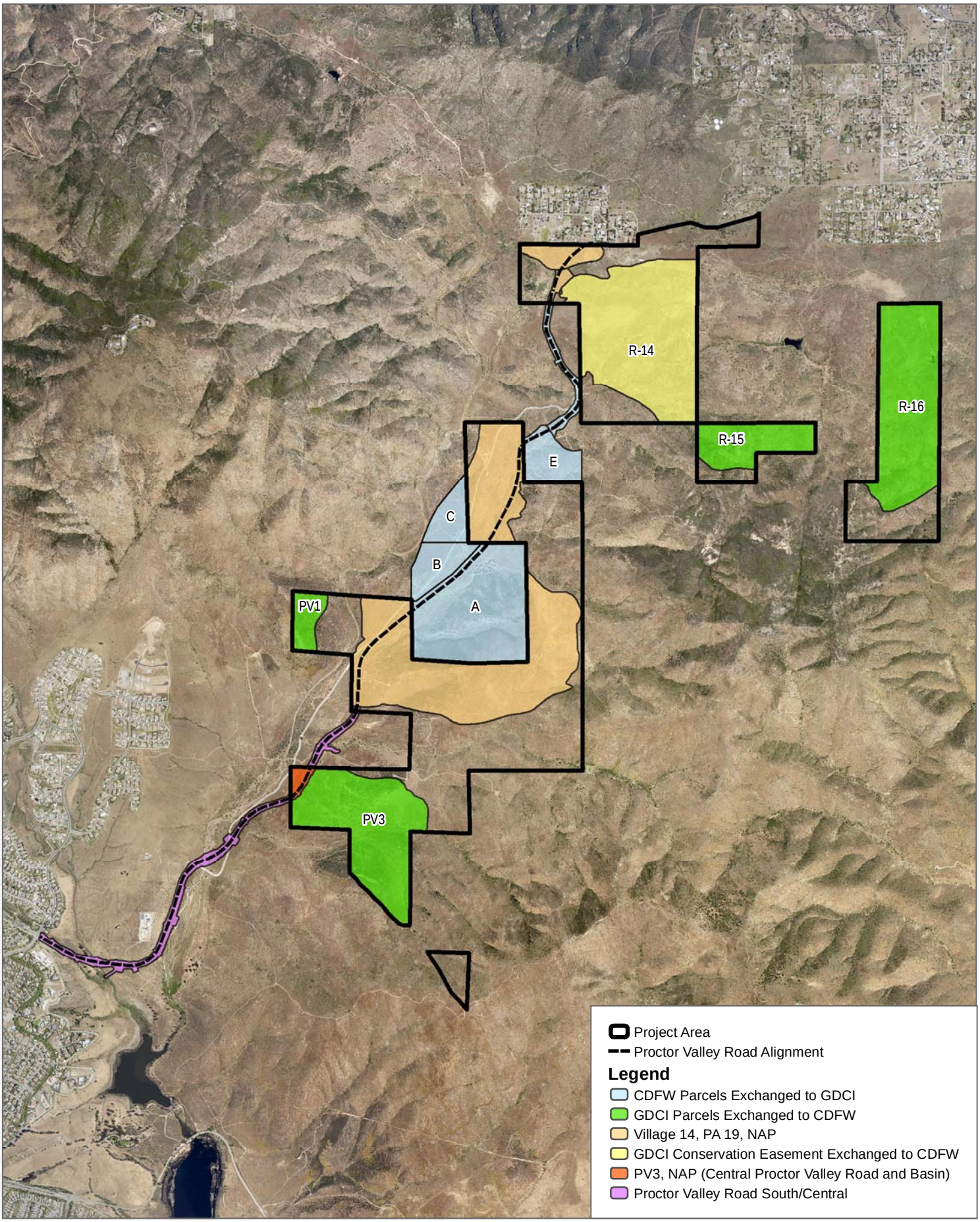
Regional Location



SOURCE: Hunsaker 2019

FIGURE 2

Site Utilization Plan



SOURCE: SANGIS 2017; Hunsaker 2019

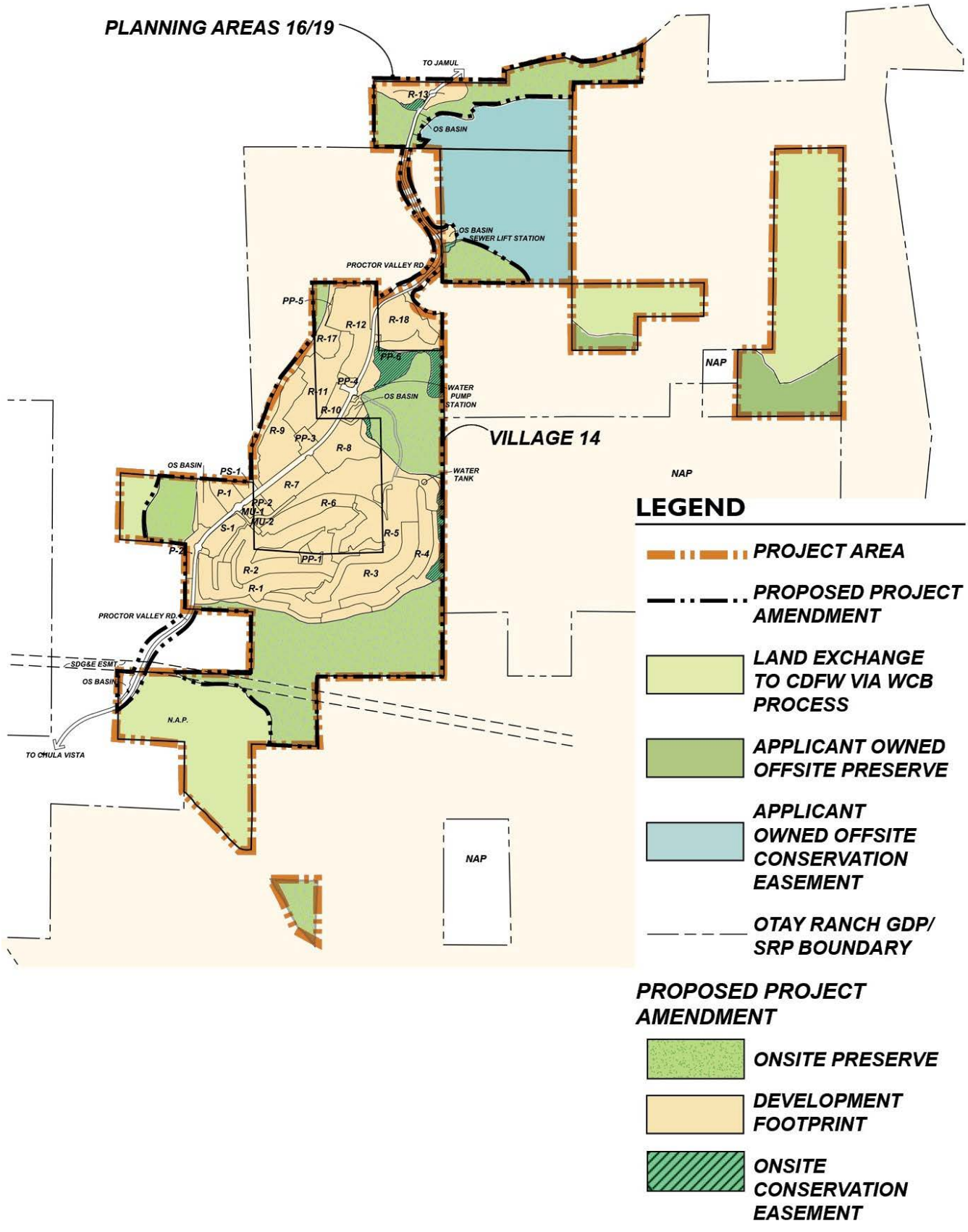
DUDEK

0 1,400 2,800 Feet

FIGURE 3

Proposed Land Exchange

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



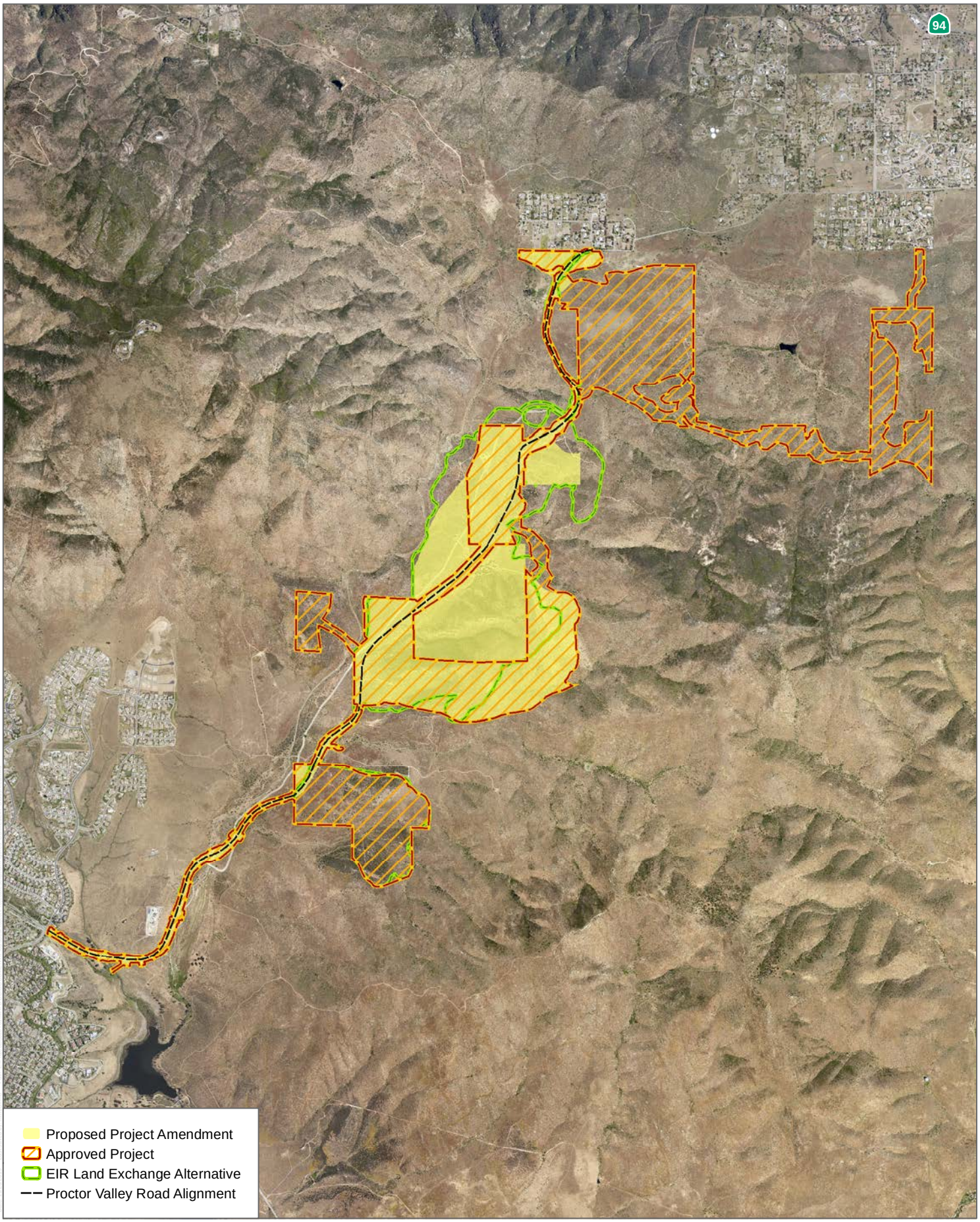
SOURCE: Hunsaker 2019

FIGURE 4

Project Area

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

DUDEK



SOURCE: SANGIS 2017; Hunsaker 2019

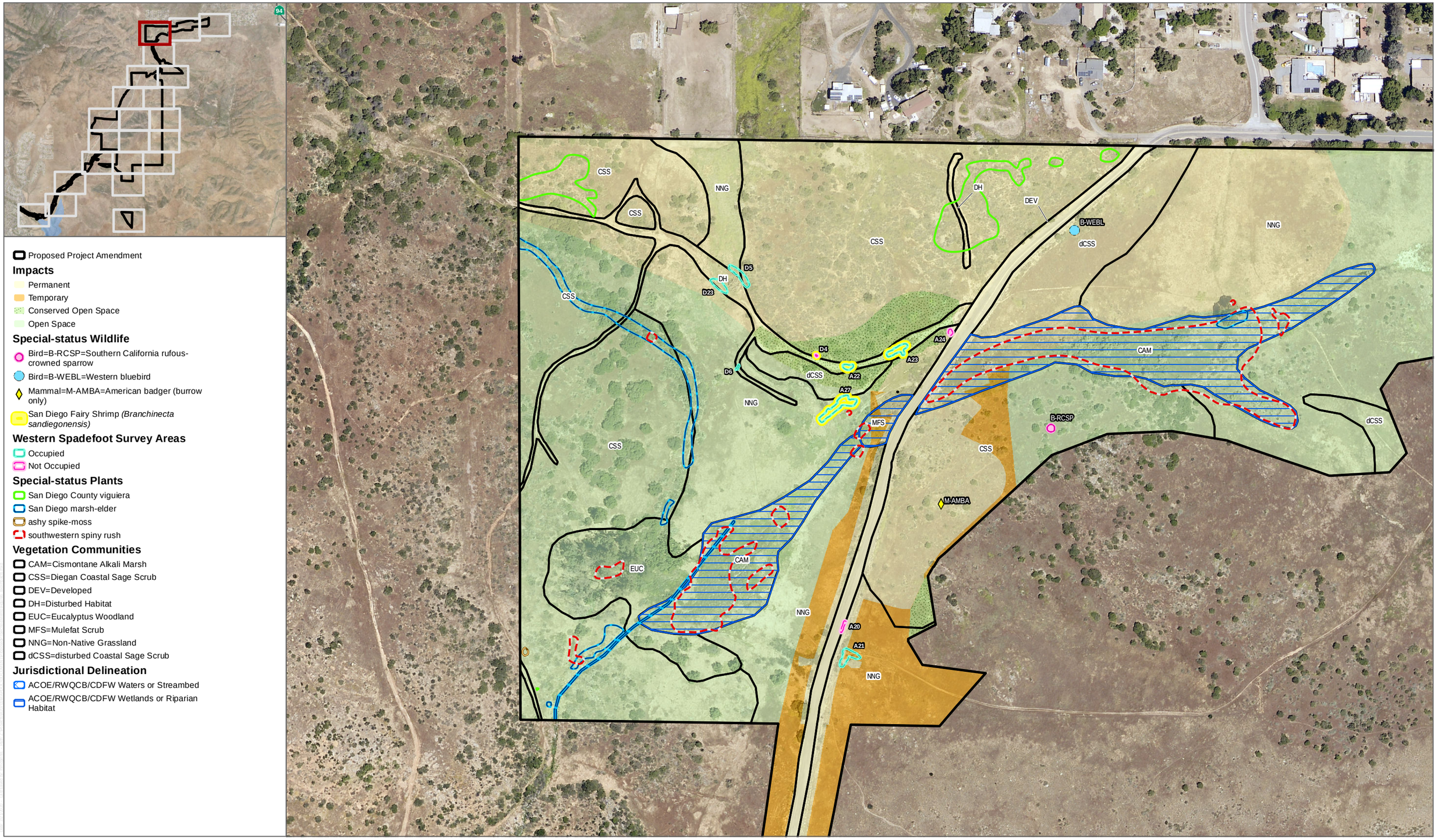
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FIGURE 5

Certified EIR Study Area

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

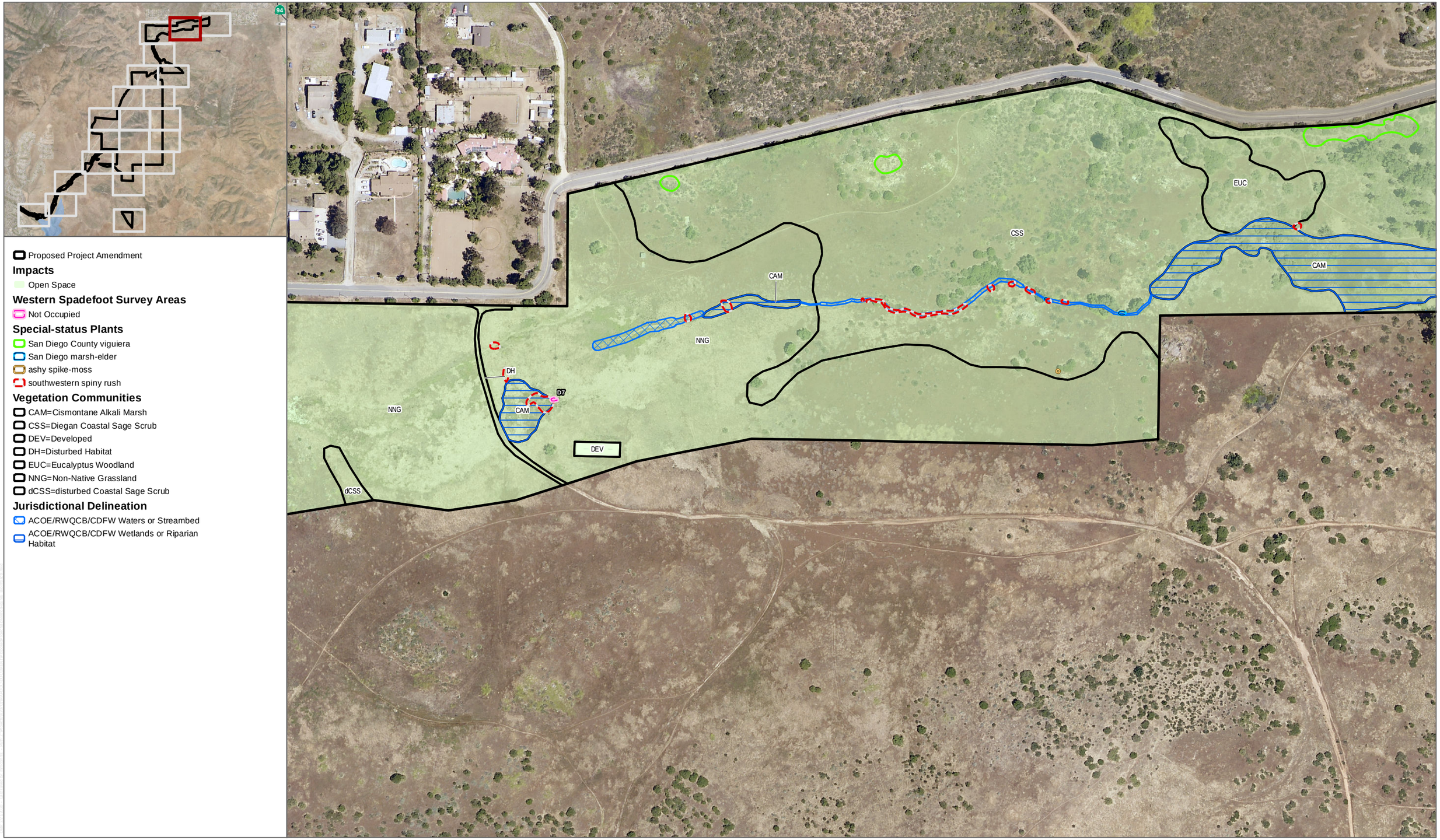
DUDEK

0 100 200 Feet

FIGURE 6a

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



Proposed Project Amendment

Impacts

Open Space

Western Spadefoot Survey Areas

Not Occupied

Special-status Plants

San Diego County viguiera

San Diego marsh-elder

ashy spike-moss

southwestern spiny rush

Vegetation Communities

CAM=Cismontane Alkali Marsh

CSS=Diegan Coastal Sage Scrub

DEV=Developed

DH=Disturbed Habitat

EUC=Eucalyptus Woodland

NNG=Non-Native Grassland

dCSS=disturbed Coastal Sage Scrub

Jurisdictional Delineation

ACOE/RWQCB/CDFW Waters or Streambed

ACOE/RWQCB/CDFW Wetlands or Riparian Habitat

SOURCE: SANGIS 2017; Hunsaker 2019

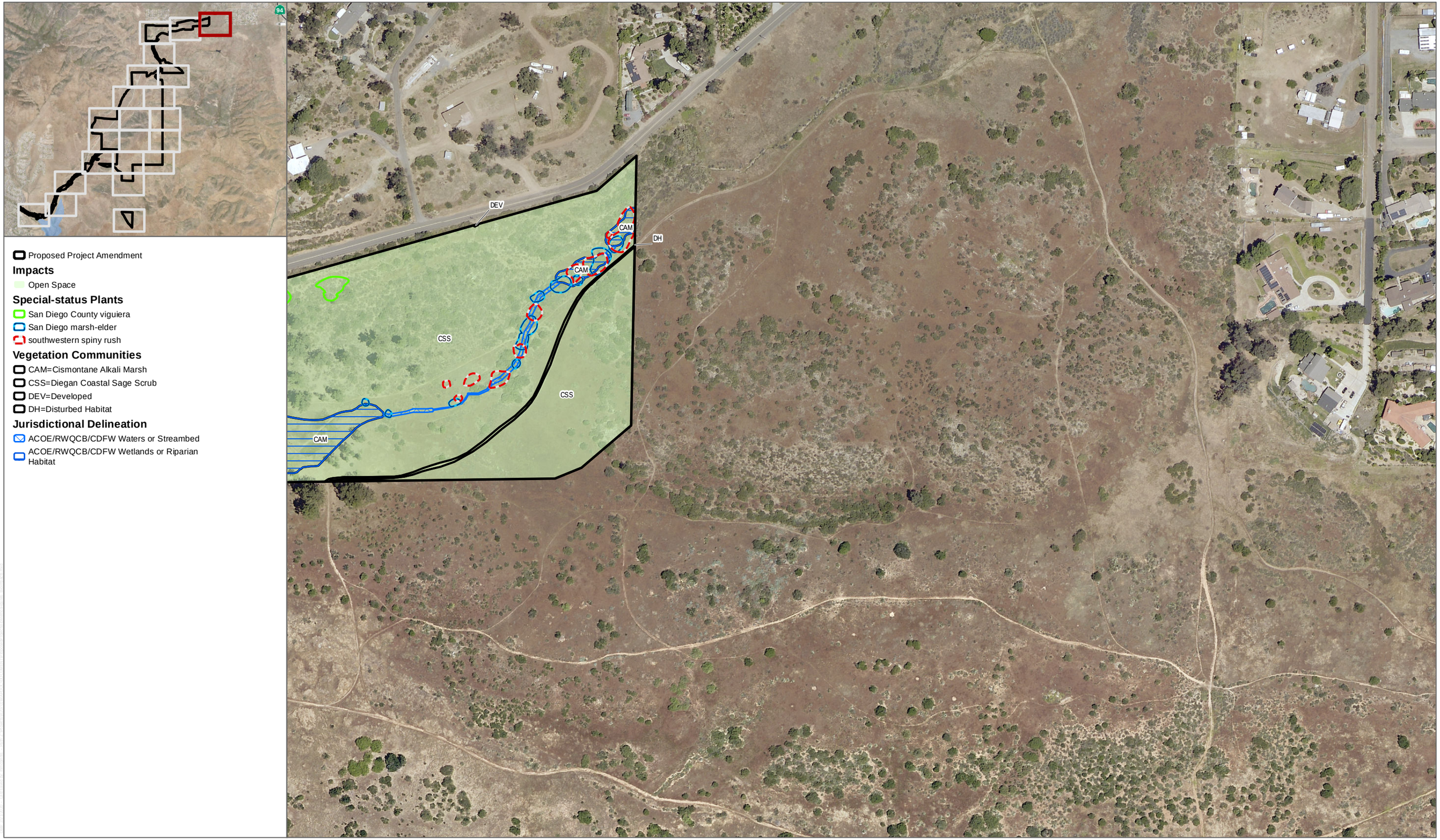
DUDEK

0 100 200 Feet

FIGURE 6b

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

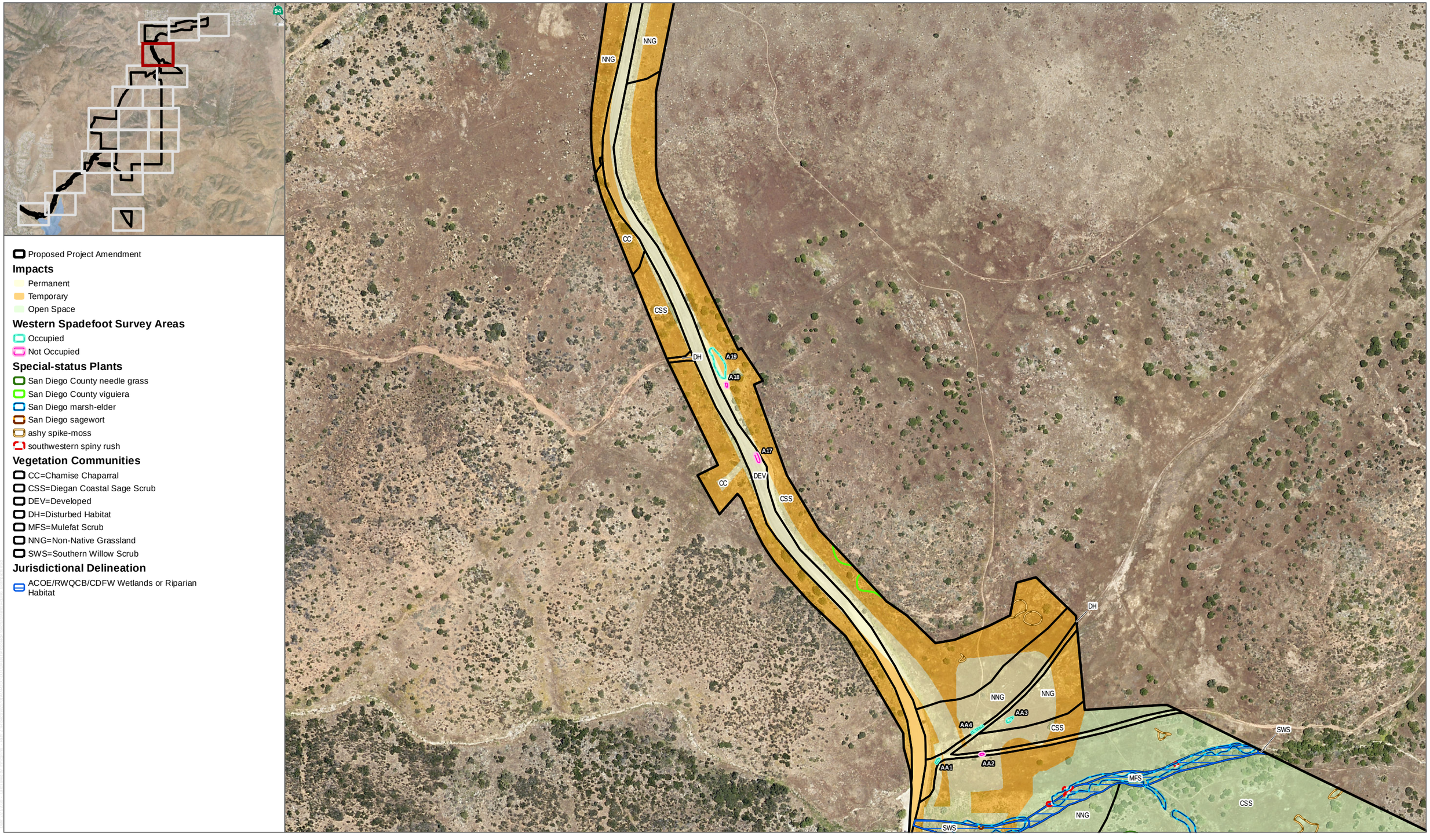
DUDEK

0 100 200 Feet

FIGURE 6c

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



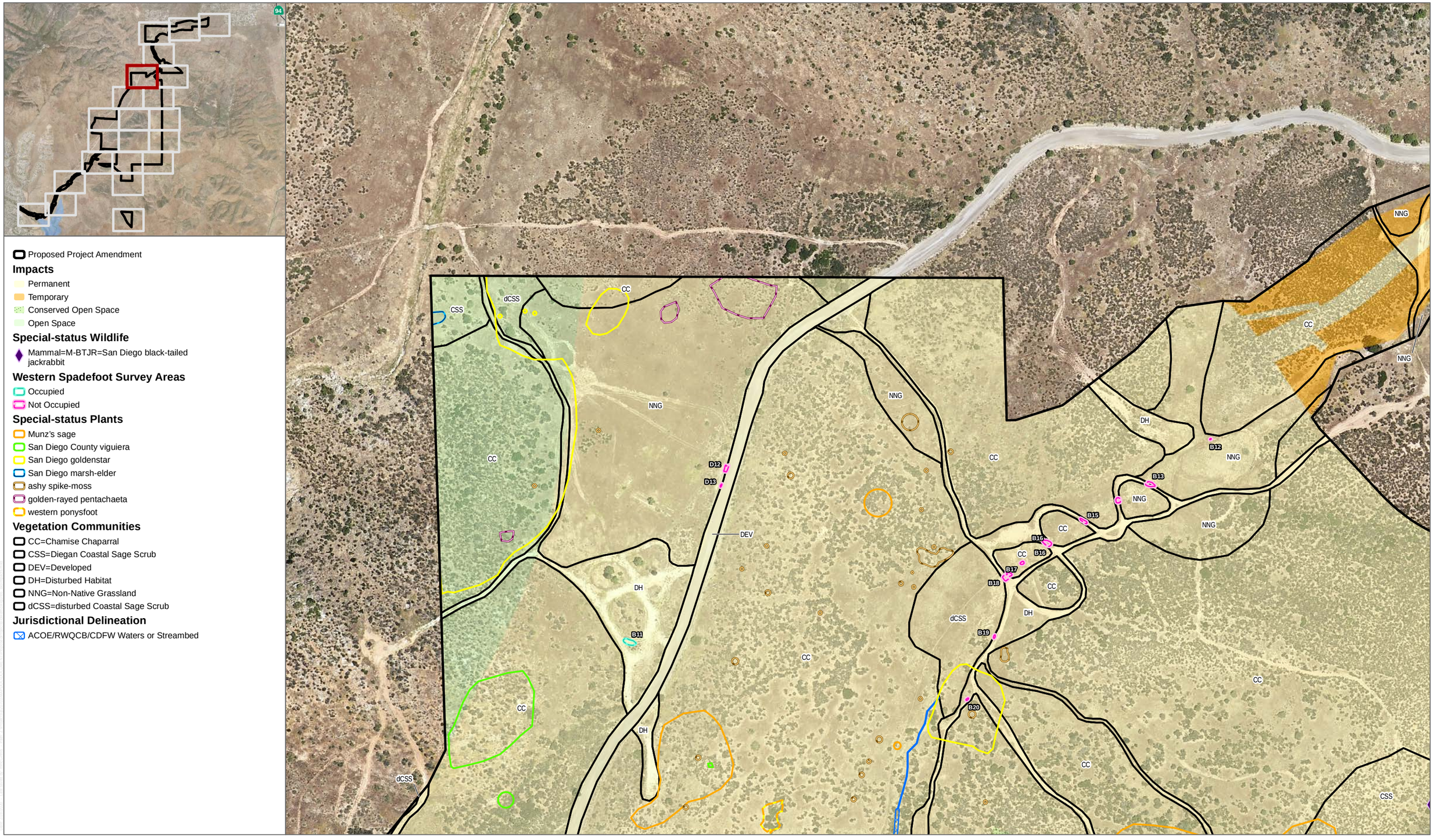
SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK 0 100 200 Feet

FIGURE 6d

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

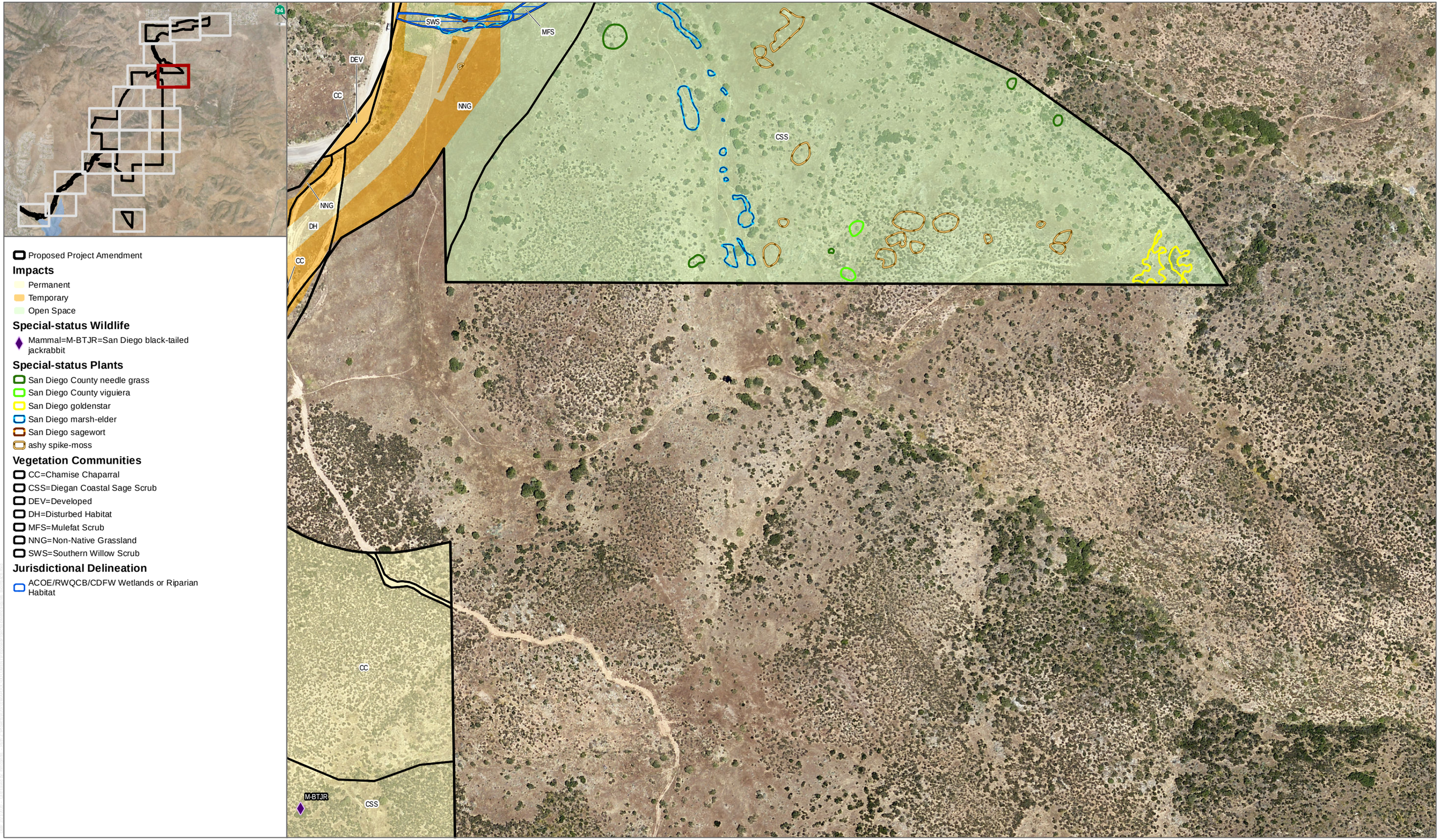
DUDEK

0 100 200 Feet

FIGURE 6f

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK

0 100 200 Feet

FIGURE 6e

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

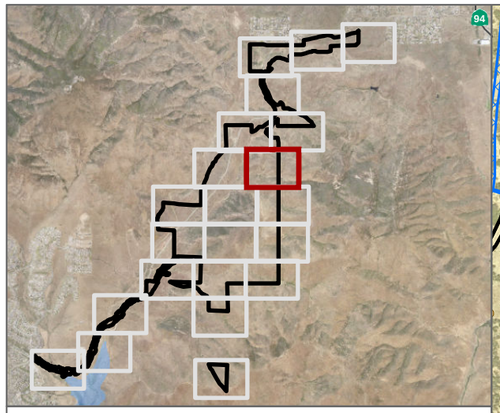
DUDEK

0 100 200 Feet

FIGURE 6h

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



Proposed Project Amendment

Impacts

- Permanent
- Temporary
- Conserved Open Space
- Open Space

Special-status Wildlife

- Mammal=M-BTJR=San Diego black-tailed jackrabbit

Special-status Plants

- Dunn's mariposa lily
- Munz's sage
- Robinson's pepper-grass
- San Diego County viguiera
- San Diego goldenstar
- San Diego marsh-elder
- ashy spike-moss

Vegetation Communities

- CAM=Cismontane Alkali Marsh
- CC=Chamise Chaparral
- CSS=Diegan Coastal Sage Scrub
- DH=Disturbed Habitat
- dCSS=disturbed Coastal Sage Scrub

Jurisdictional Delineation

- ACOE/RWQCB/CDFW Waters or Streambed
- ACOE/RWQCB/CDFW Wetlands or Riparian Habitat

SOURCE: SANGIS 2017; Hunsaker 2019

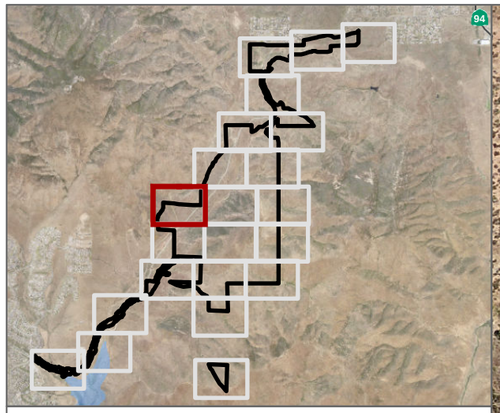
DUDEK

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FIGURE 6g

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



Proposed Project Amendment

Impacts
- Permanent
- Conserved Open Space
- Open Space

Special-status Plants
- Munz's sage
- San Diego County viguiera
- San Diego marsh-elder
- ashy spike-moss

Vegetation Communities
- CAM=Cismontane Alkali Marsh
- CC=Chamise Chaparral
- DEV=Developed
- DH=Disturbed Habitat

Jurisdictional Delineation
- ACOE/RWQCB/CDFW Waters or Streambed
- ACOE/RWQCB/CDFW Wetlands or Riparian Habitat

SOURCE: SANGIS 2017; Hunsaker 2019

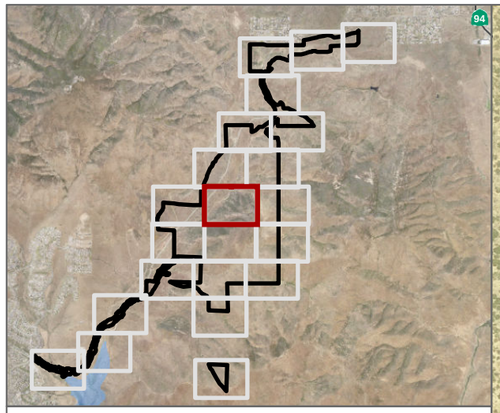
DUDEK

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FIGURE 6j

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



Proposed Project Amendment

Impacts
- Permanent
- Temporary
- Open Space

Special-status Wildlife
- Bird=B-BUOW=burrowing owl (sign)
- Reptile=R-BHLI=Blainville's horned lizard

Western Spadefoot Survey Areas
- Occupied
- Not Occupied

Special-status Plants
- Munz's sage
- Robinson's pepper-grass
- San Diego County viguiera
- San Diego marsh-elder
- ashy spike-moss
- golden-rayed pentachaeta

Vegetation Communities
- CAM=Cismontane Alkali Marsh
- CC=Chamise Chaparral
- CSS=Diegan Coastal Sage Scrub
- DEV=Developed
- DH=Disturbed Habitat
- EUC=Eucalyptus Woodland
- NNG=Non-Native Grassland
- dCSS=disturbed Coastal Sage Scrub

Jurisdictional Delineation
- ACOE/RWQCB/CDFW Waters or Streambed
- ACOE/RWQCB/CDFW Wetlands or Riparian Habitat

SOURCE: SANGIS 2017; Hunsaker 2019

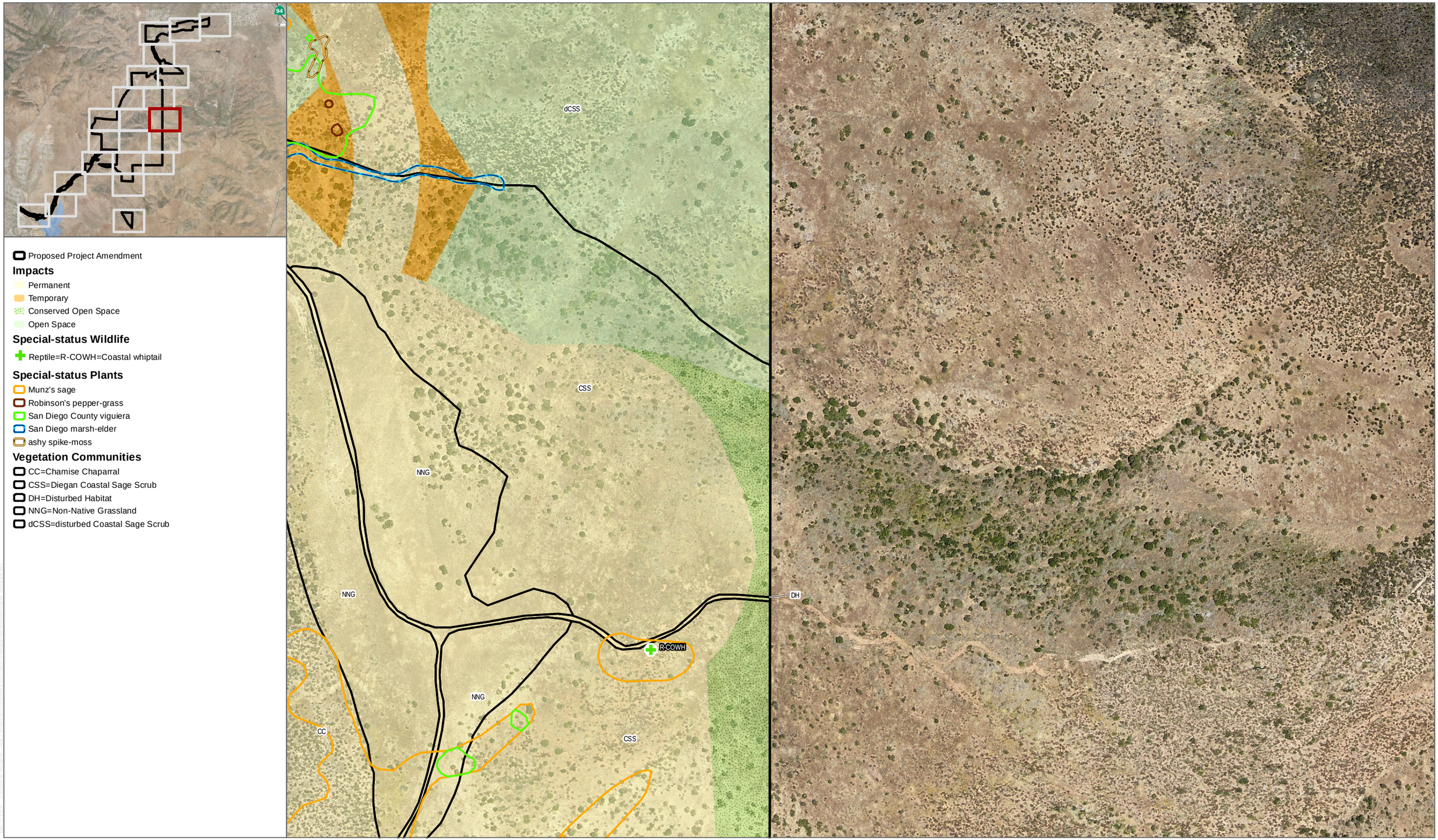
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FIGURE 6i

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

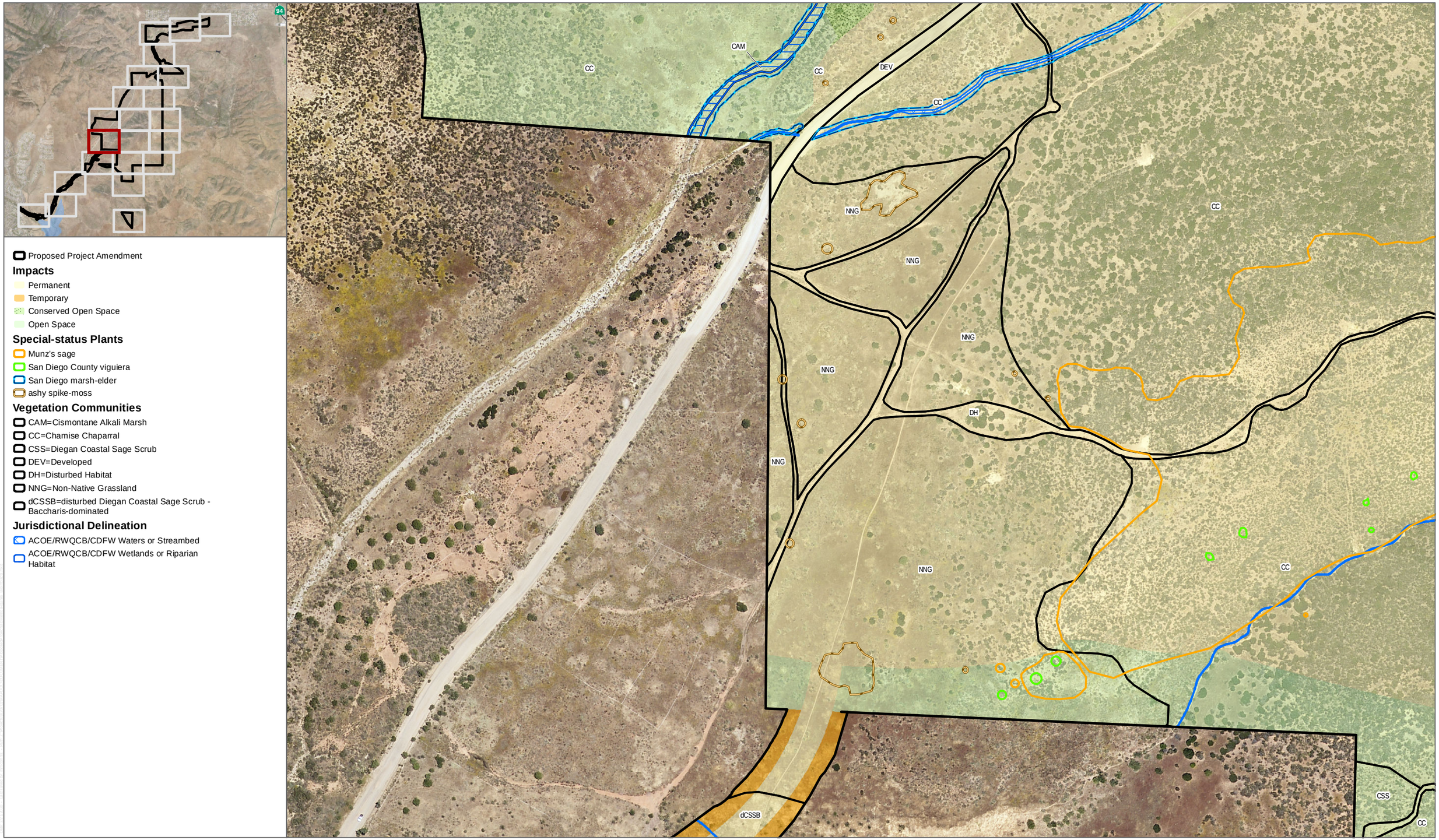
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0 100 200 Feet

FIGURE 6k

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

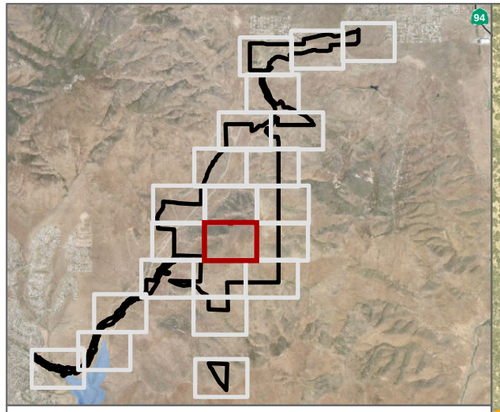
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FIGURE 6m

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



Proposed Project Amendment

Impacts

Permanent

Open Space

Special-status Wildlife

Bird=B-HOLA=California horned lark

Bird=B-NUWO=Nuttall's woodpecker

Bird=B-WTKI=White-tailed kite

Mammal=M-BTJR=San Diego black-tailed jackrabbit

Western Spadefoot Survey Areas

Not Occupied

Special-status Plants

Munz's sage

San Diego County viguiera

San Diego marsh-elder

ashy spike-moss

western ponysfoot

Vegetation Communities

CC=Chamise Chaparral

CSS=Diegan Coastal Sage Scrub

DH=Disturbed Habitat

Jurisdictional Delineation

ACOE/RWQCB/CDFW Waters or Streambed

SOURCE: SANGIS 2017; Hunsaker 2019

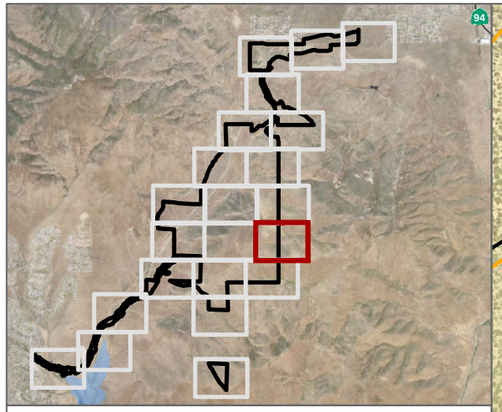
DUDEK

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FIGURE 6I

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



Proposed Project Amendment

Impacts

- Permanent
- Conserved Open Space
- Open Space

Special-status Wildlife

- Bird=B-HOLA=California horned lark
- Bird=B-LOSH=Loggerhead shrike
- Reptile=R-ROBO=Rosy boa

Special-status Plants

- Munz's sage
- San Diego marsh-elder

Vegetation Communities

- CC=Chamise Chaparral
- CSS=Diegan Coastal Sage Scrub
- DH=Disturbed Habitat
- NNG=Non-Native Grassland

Jurisdictional Delineation

- ACOE/RWQCB/CDFW Waters or Streambed





SOURCE: SANGIS 2017; Hunsaker 2019

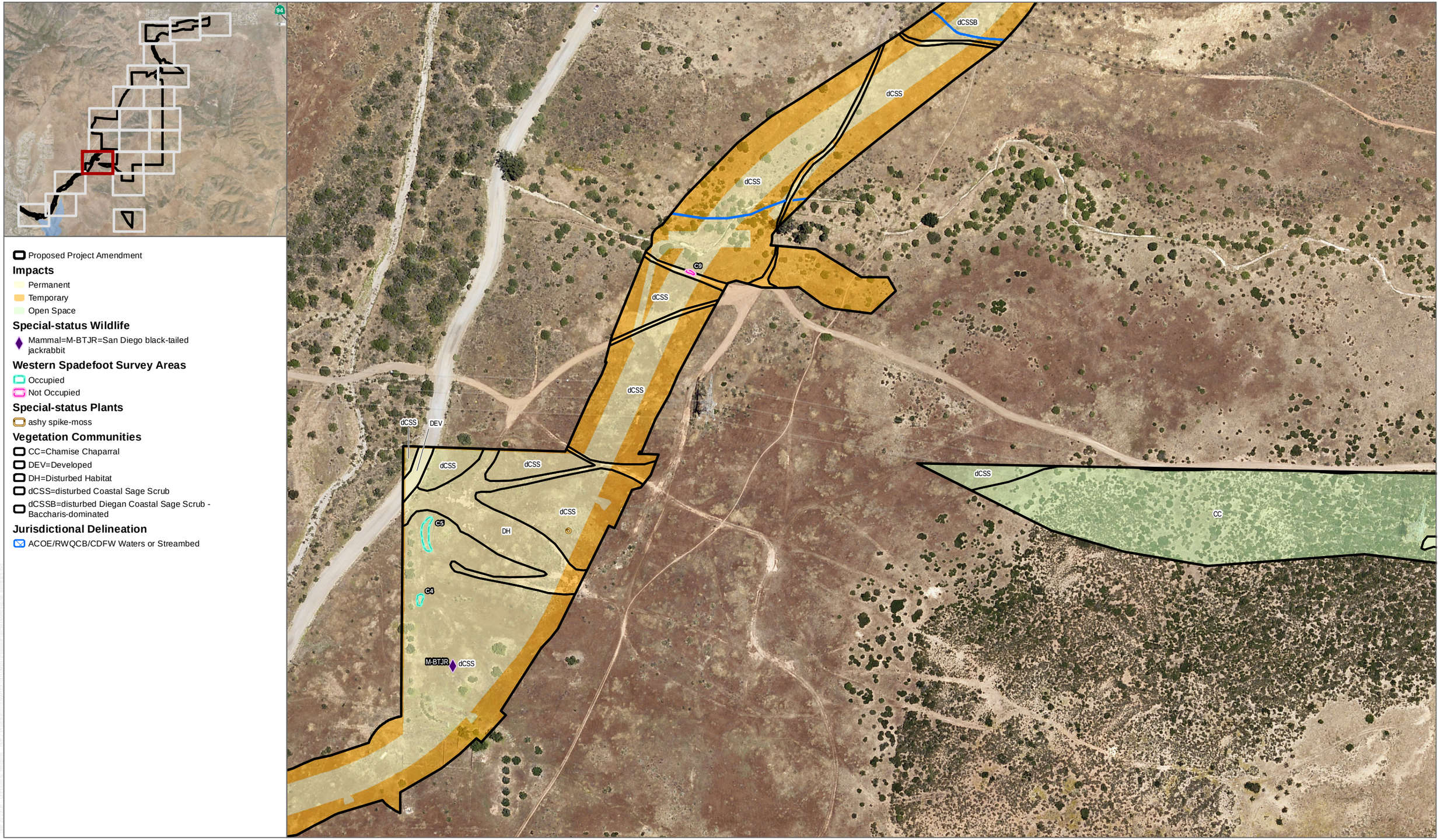
DUDEK

0 100 200 Feet

FIGURE 6n

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

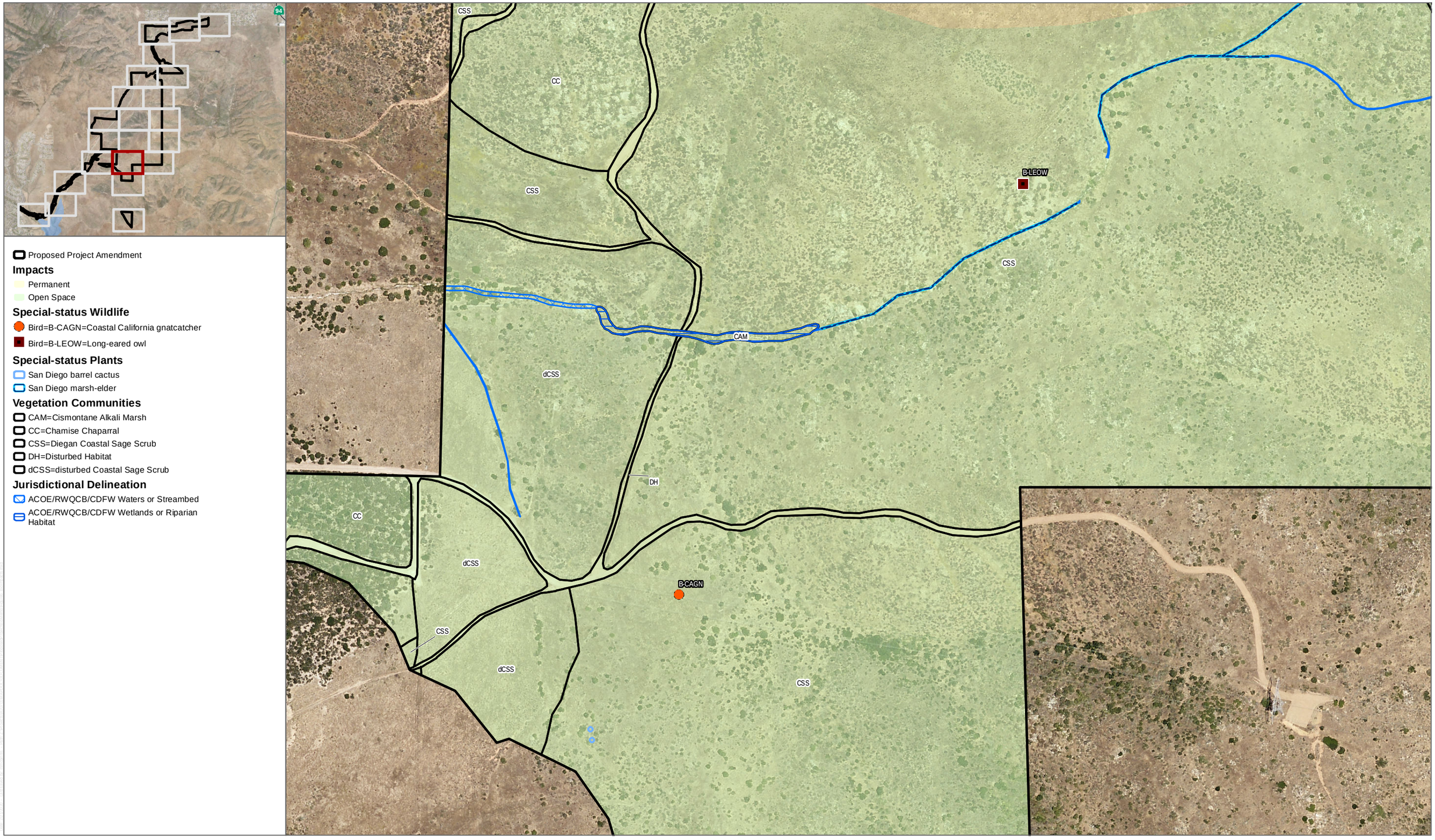
DUDEK

0 100 200 Feet

FIGURE 6p

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

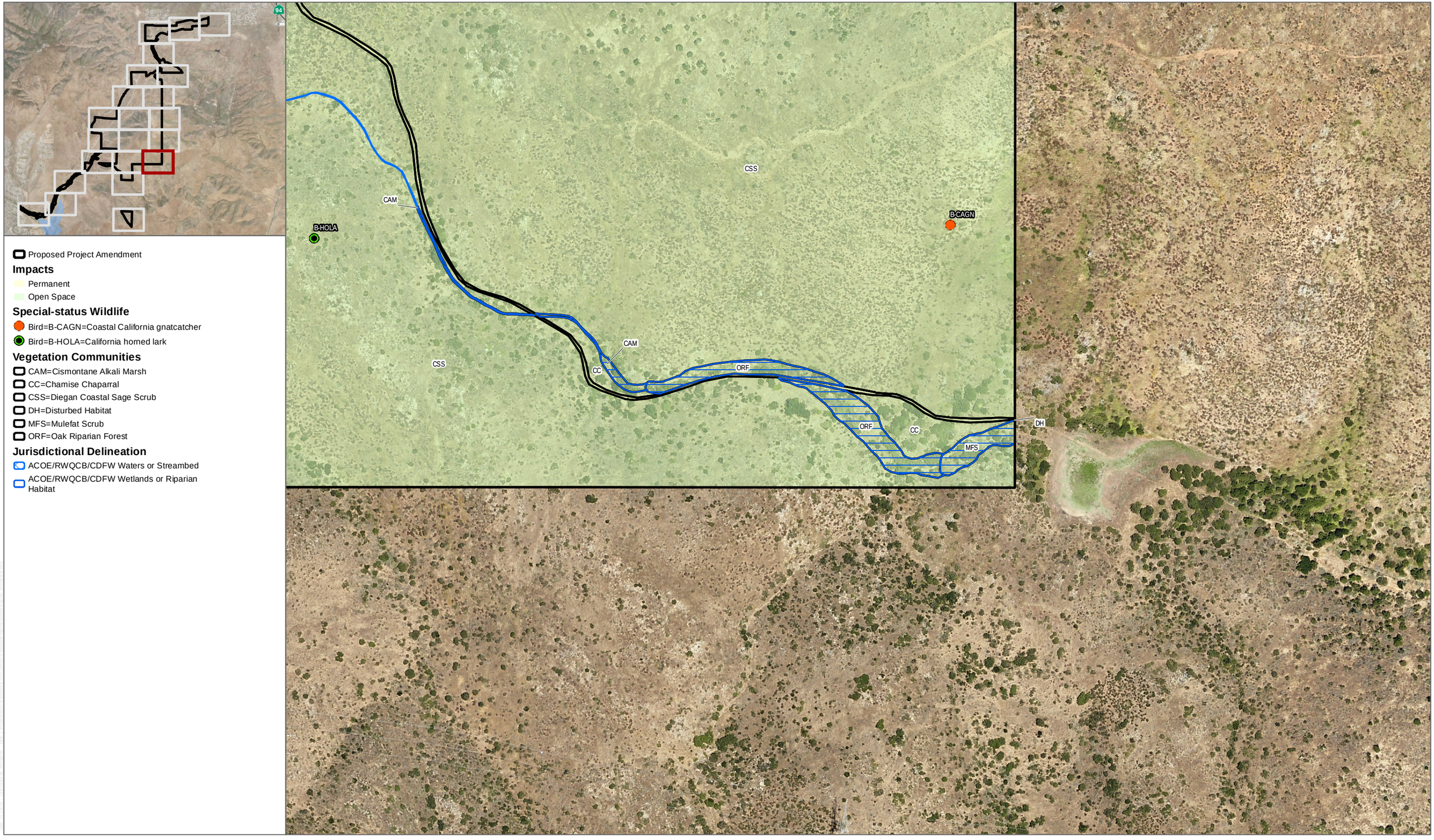
DUDEK

0 100 200 Feet

FIGURE 6o

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

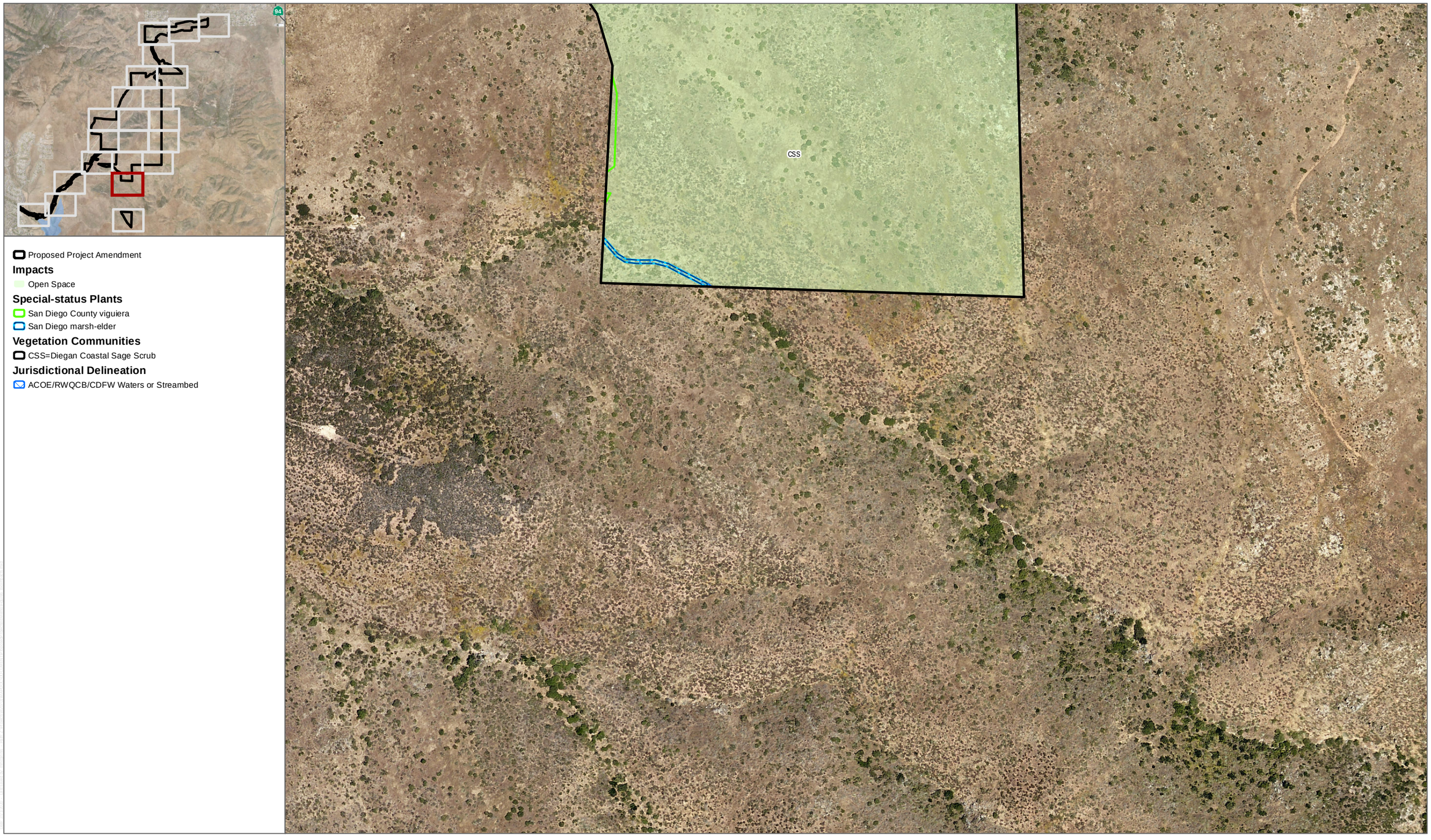
DUDEK

0 100 200 Feet

FIGURE 6q

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

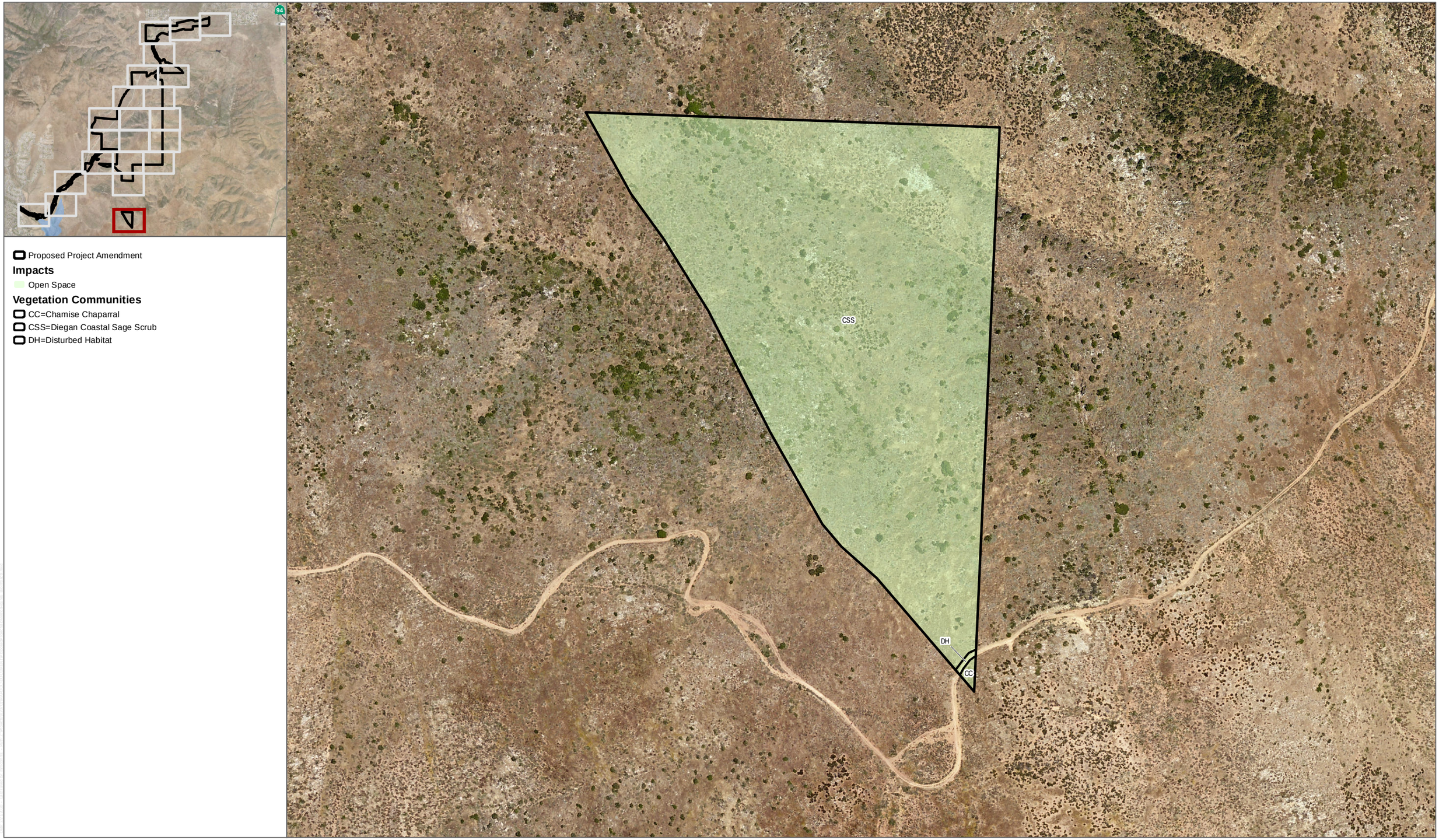
DUDEK

0 100 200 Feet

FIGURE 6r

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

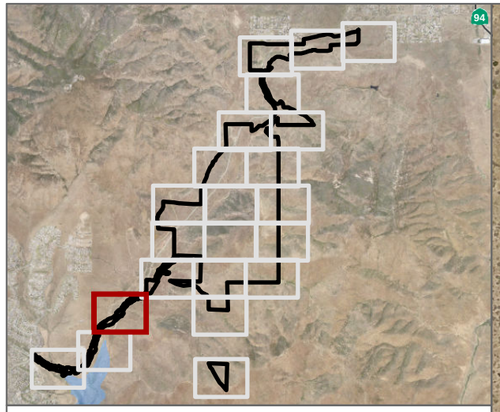
DUDEK

0 100 200 Feet

FIGURE 6s

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



- Proposed Project Amendment
- Vernal Pool
- Vernal Pool Watershed

Impacts

- Permanent
- Temporary

Vegetation Communities

- CSS=Diegan Coastal Sage Scrub
- CSSB=Diegan Coastal Sage Scrub - Baccharis-dominated
- DEV=Developed
- DH=Disturbed Habitat
- NNG=Non-Native Grassland
- SMX=Southern Mixed Chaparral
- UVC=Unvegetated Channel
- dCSS=disturbed Coastal Sage Scrub

Jurisdictional Delineation

- ACOE/RWQCB/CDFW Waters or Streambed

SOURCE: SANGIS 2017; Hunsaker 2019

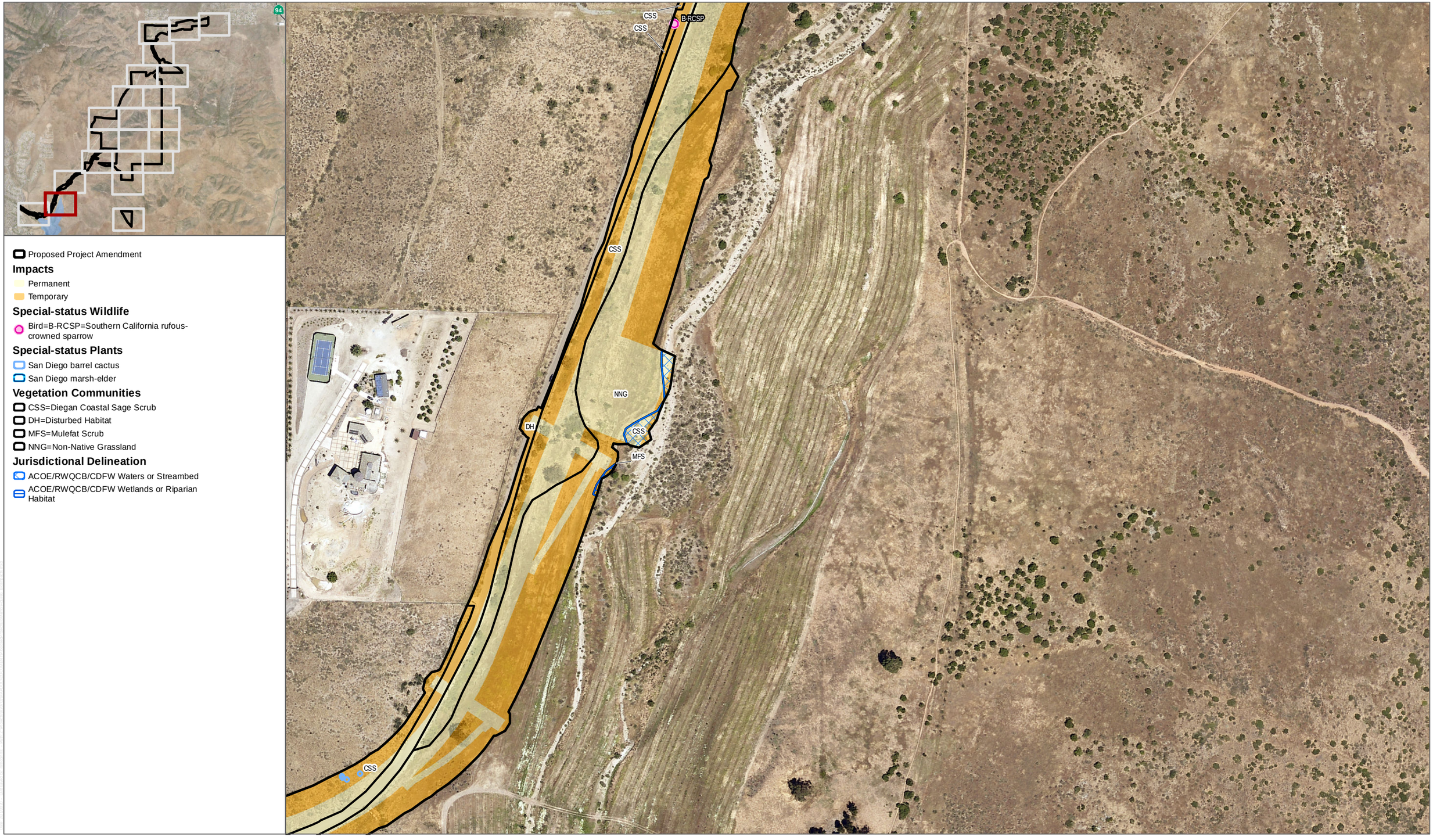
DUDEK

0 100 200 Feet

FIGURE 6t

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

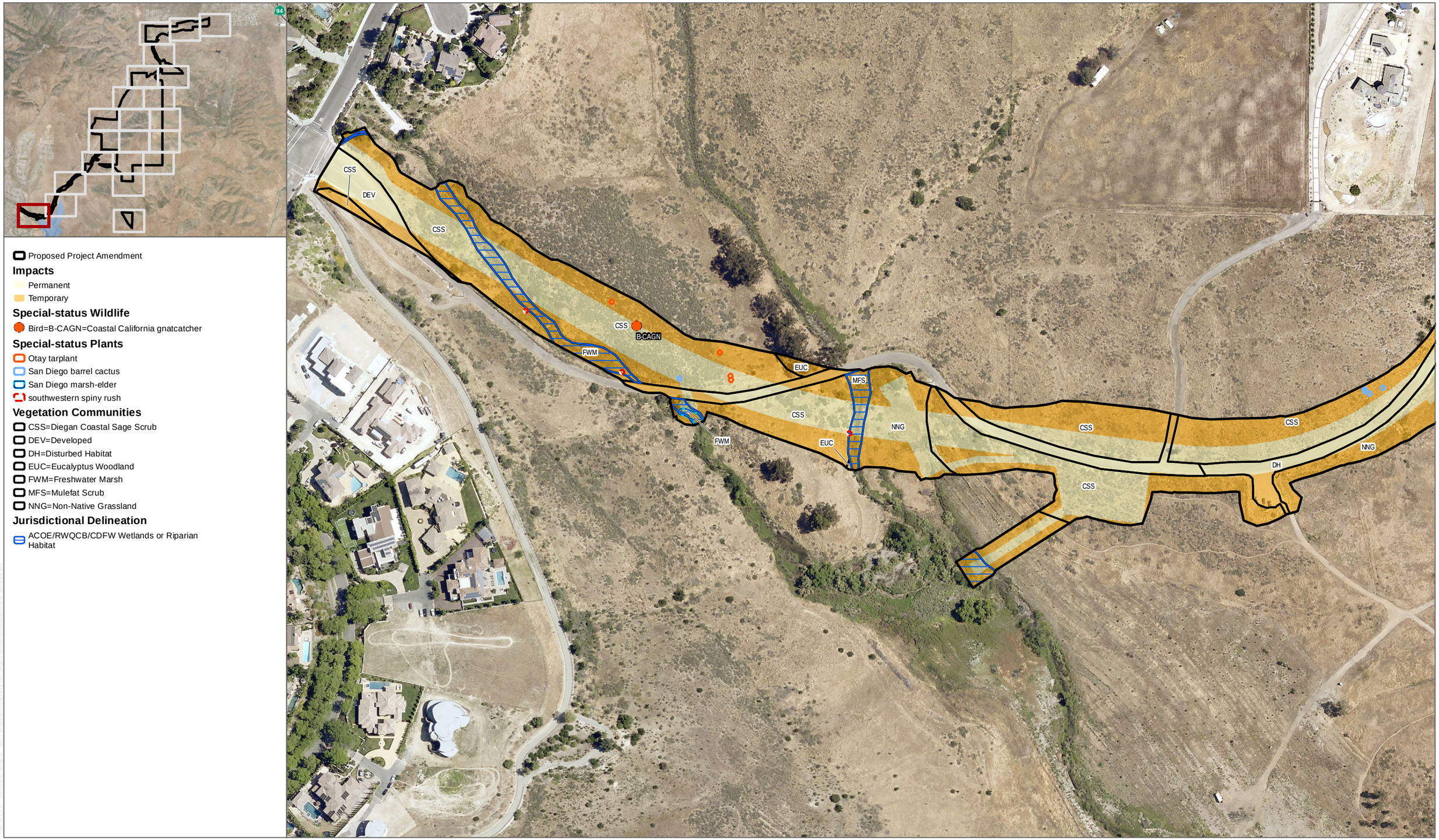
DUDEK

0 100 200 Feet

FIGURE 6u

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

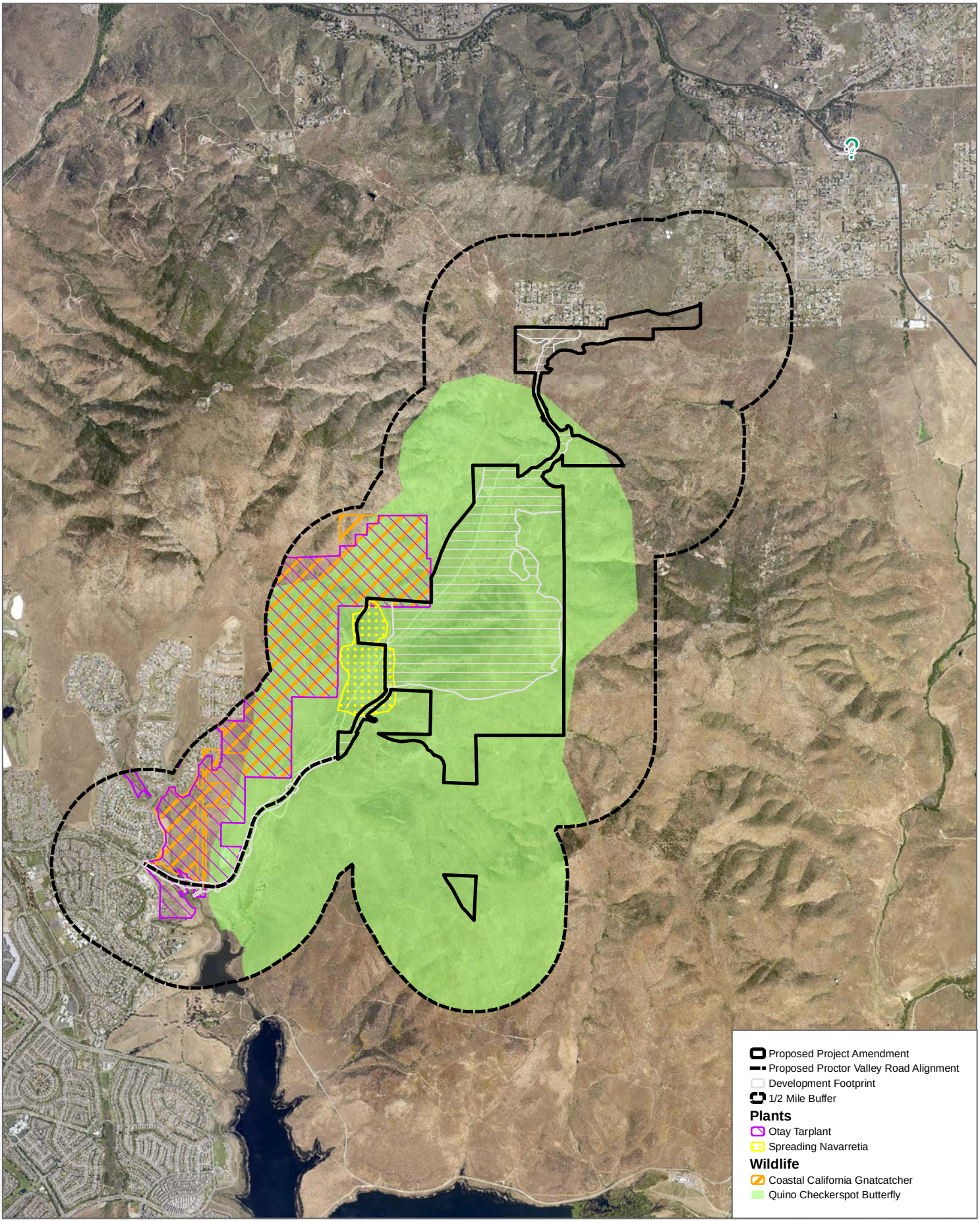
DUDEK

0 100 200 Feet

FIGURE 6v

Impacts to Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019; USFWS 2019

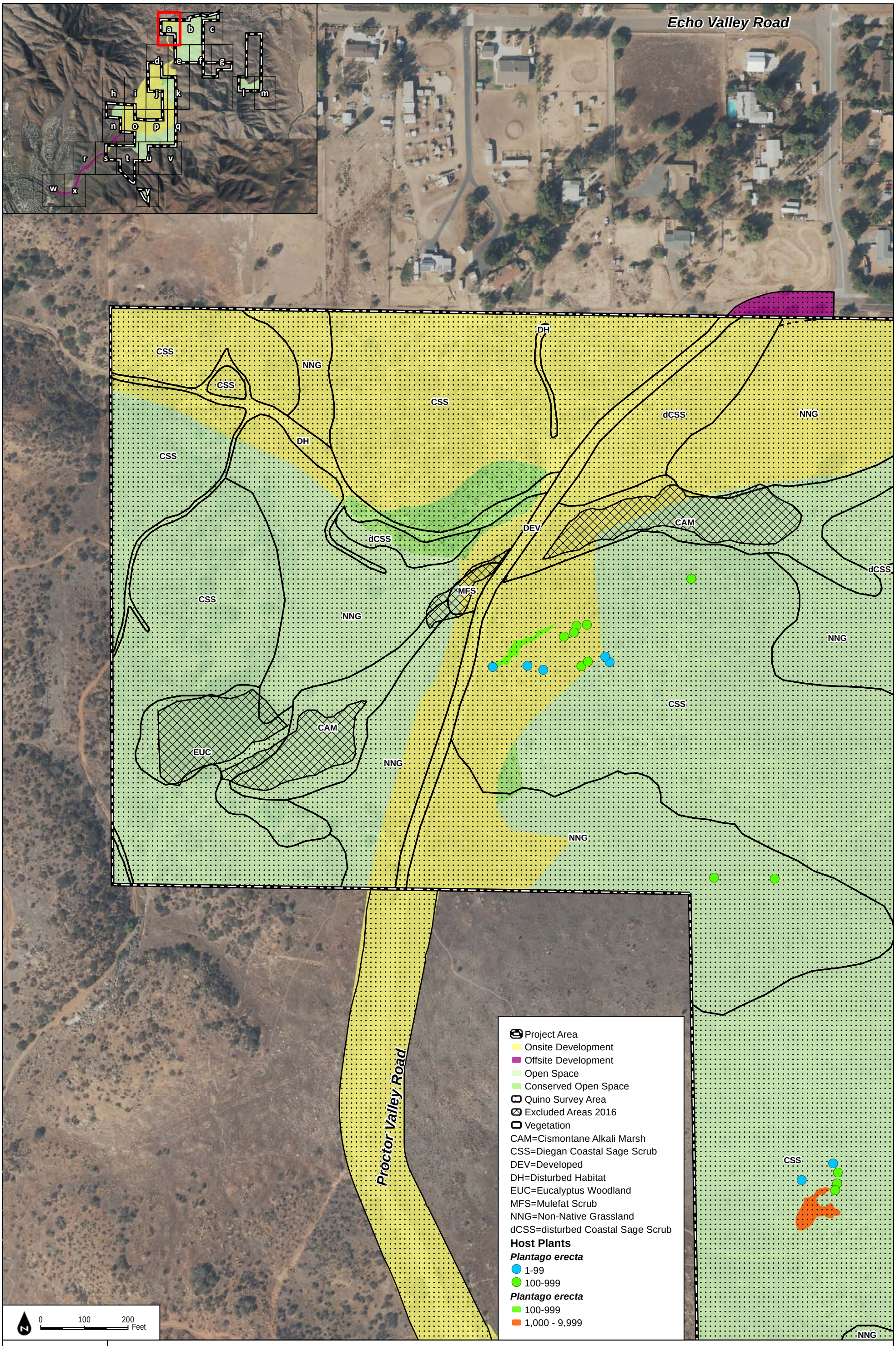
DUDEK

0 1,850 3,700 Feet

FIGURE 7

Critical Habitat

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8a

2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

Project Area
Onsite Development
Offsite Development
Open Space
Conserved Open Space
Quino Survey Area
Vegetation
CAM=Cismontane Alkali Marsh
CSS=Diegan Coastal Sage Scrub
DEV=Developed
DH=Disturbed Habitat
NNG=Non-Native Grassland
dCSS=disturbed Coastal Sage Scrub

Host Plants

Plantago erecta
1-99
100-999
1,000 - 9,999

Plantago erecta
100-999

a b c d e f g h i j k l m n o p q r s t u v w x y

CSS CAM NNG CAM DEV NNG CAM dCSS NNG CSS NNG DH CSS CSS CSS DH CSS NNG NNG

0 100 200 Feet

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8b
2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8c
2016 Quino Host Plant Mapping and Recent Sightings

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

Project Area
Onsite Development
Offsite Development
Open Space
Conserved Open Space
Quino Survey Area
Vegetation
CC=Chamise Chaparral
CSS=Diegan Coastal Sage Scrub
DEV=Developed
DH=Disturbed Habitat
NNG=Non-Native Grassland
dCSS=disturbed Coastal Sage Scrub

Host Plants

Castilleja spp. (*C. exserta; C. densiflora*)
1-99

Plantago erecta
1-99
100-999
1,000 - 9,999

Plantago erecta
100-999
1,000 - 9,999

a b c d e f g h i j k l m n o p q r s t u v w x y

CC CSS dCSS NNG DEV DH

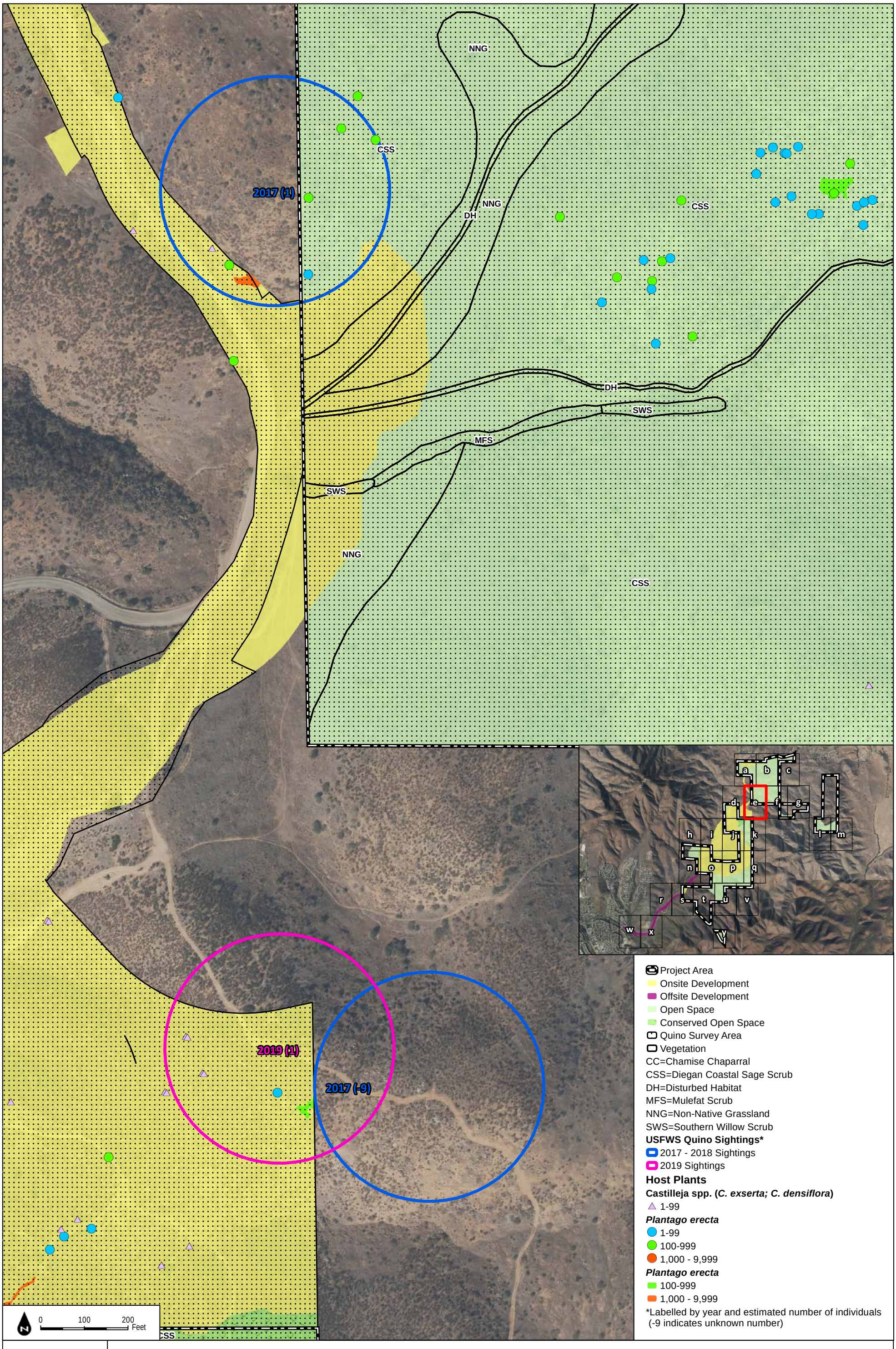
0 100 200 Feet

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8d
2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



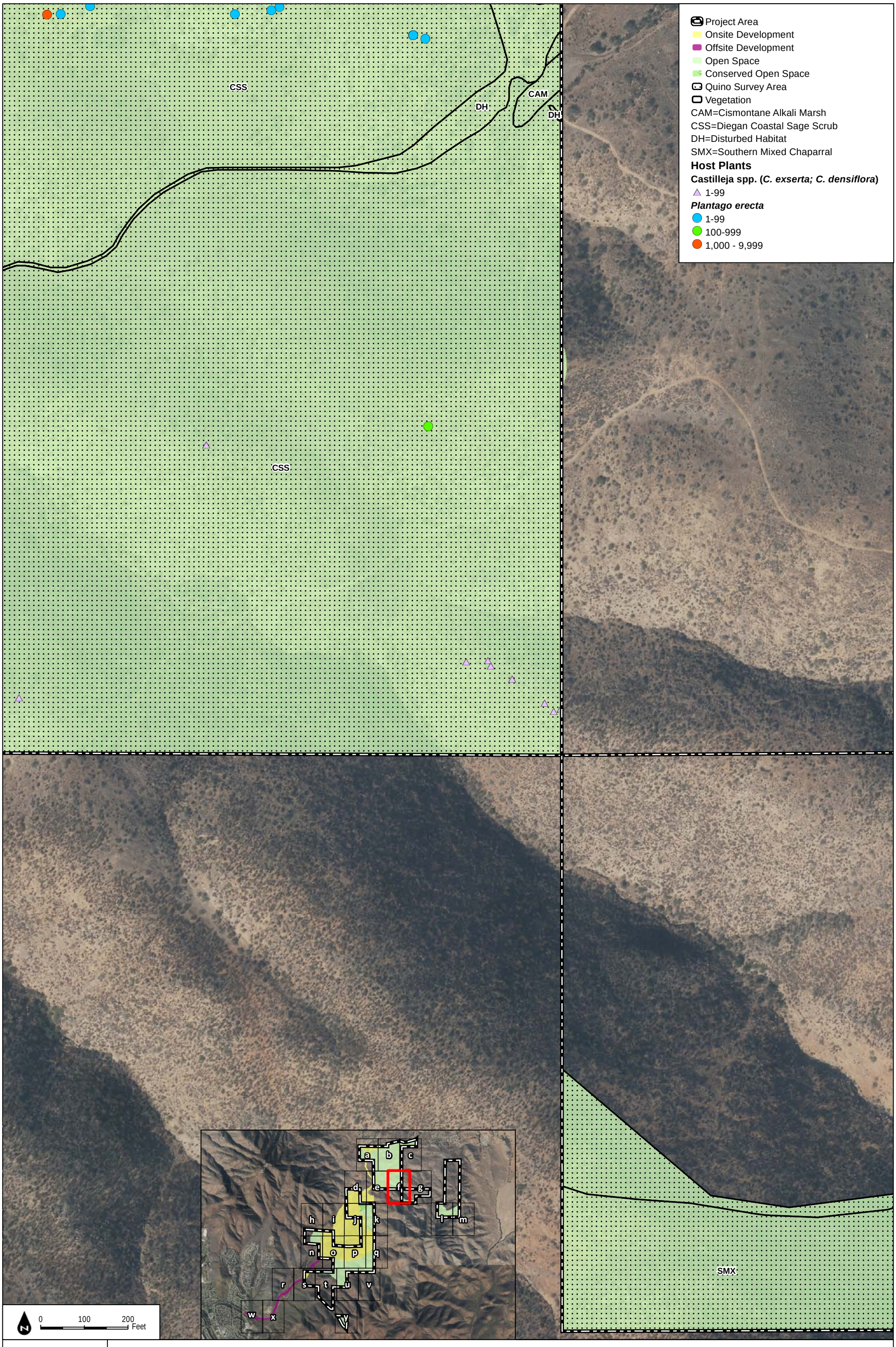
DUDEK

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8e

2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8f
2016 Quino Host Plant Mapping and Recent Sightings

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

Project Area
Onsite Development
Offsite Development
Open Space
Conserved Open Space
Quino Survey Area
Vegetation
CSS=Diegan Coastal Sage Scrub
SMX=Southern Mixed Chaparral

CSS
SMX

N
0 100 200 Feet

a b c d e f g h i j k l m n o p q r s t u v w x y

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

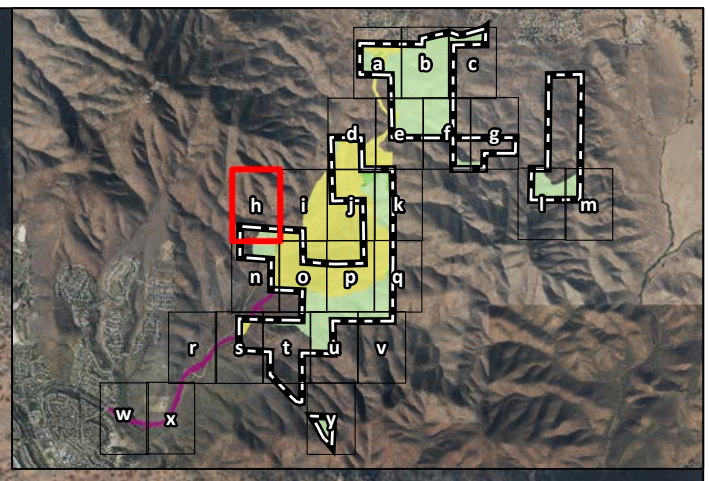
DUDEK

Figure 8g
2016 Quino Host Plant Mapping and Recent Sightings

Project Area
Onsite Development
Offsite Development
Open Space
Conserved Open Space
Quino Survey Area
Vegetation
CAM=Cismontane Alkali Marsh
CC=Chamise Chaparral

USFWS Quino Sightings*
2017 - 2018 Sightings
2019 Sightings

Host Plants
Castilleja spp. (*C. exserta; C. densiflora*)
1-99
*Labelled by year and estimated number of individuals (-9 indicates unknown number)



2017 (2)
2019 (1)
2017 (1)
CC
CAM
CC
0
100
200
Feet

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8h
2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

Project Area
Onsite Development
Offsite Development
Open Space
Conserved Open Space
Quino Survey Area
Excluded Areas 2016
Vegetation
CC=Chamise Chaparral
DEV=Developed
DH=Disturbed Habitat

USFWS Quino Sightings*
2017 - 2018 Sightings
2019 Sightings

Host Plants

Castilleja spp. (*C. exserta; C. densiflora*)
1-99

Plantago erecta
1-99
100-999

Plantago erecta
1-99
100-999
1,000 - 9,999

Castilleja spp. (*C. exserta; C. densiflora*)
1-99

*Labelled by year and estimated number of individuals (-9 indicates unknown number)

a b c d e f g h i j k l m n o p q r s t u v w x y

2018 (-9)
2017 (4)
2019 (2)
2019 (1)

DH
CC
DEV
CC

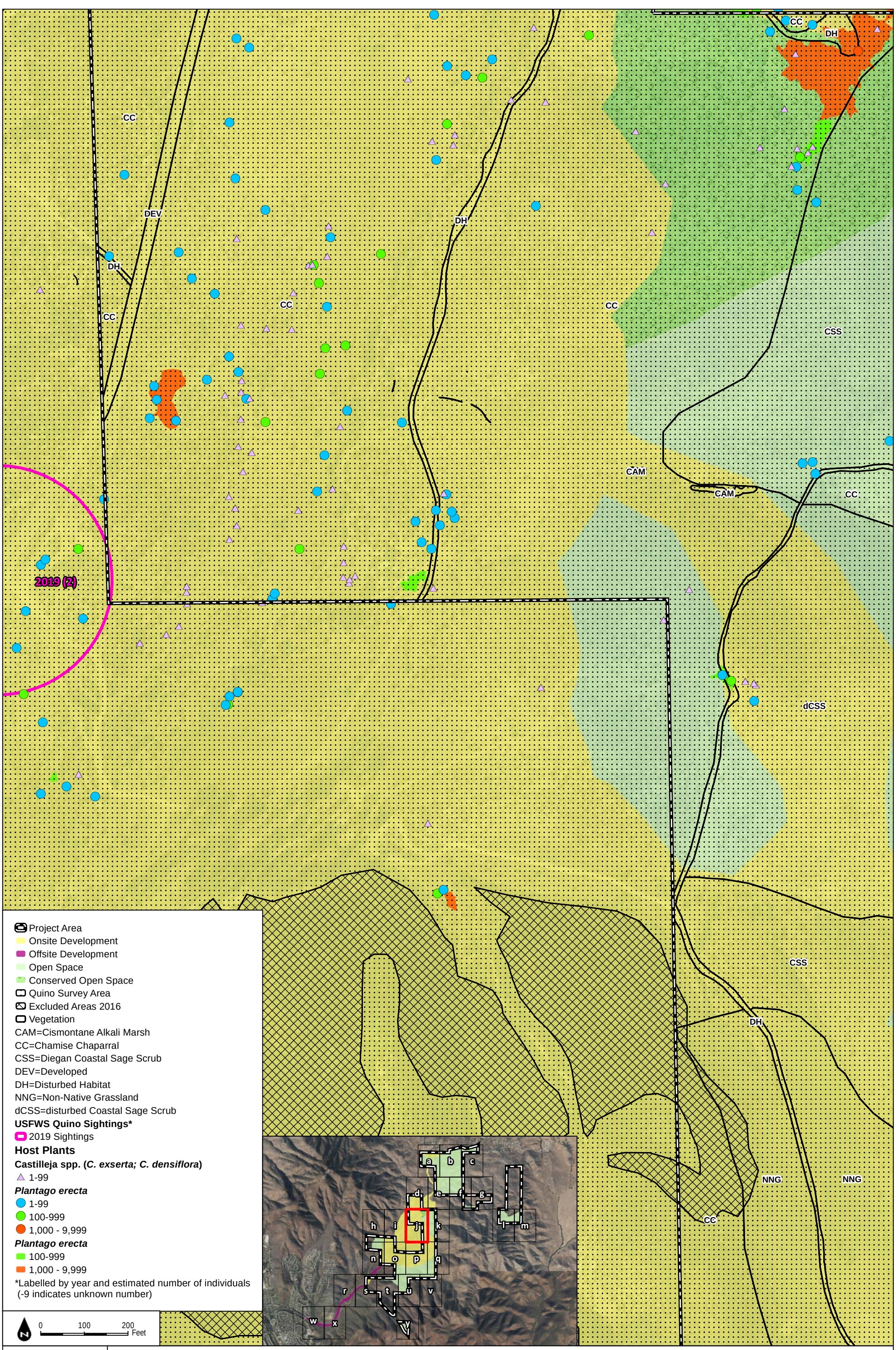
0 100 200 Feet

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8i
2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



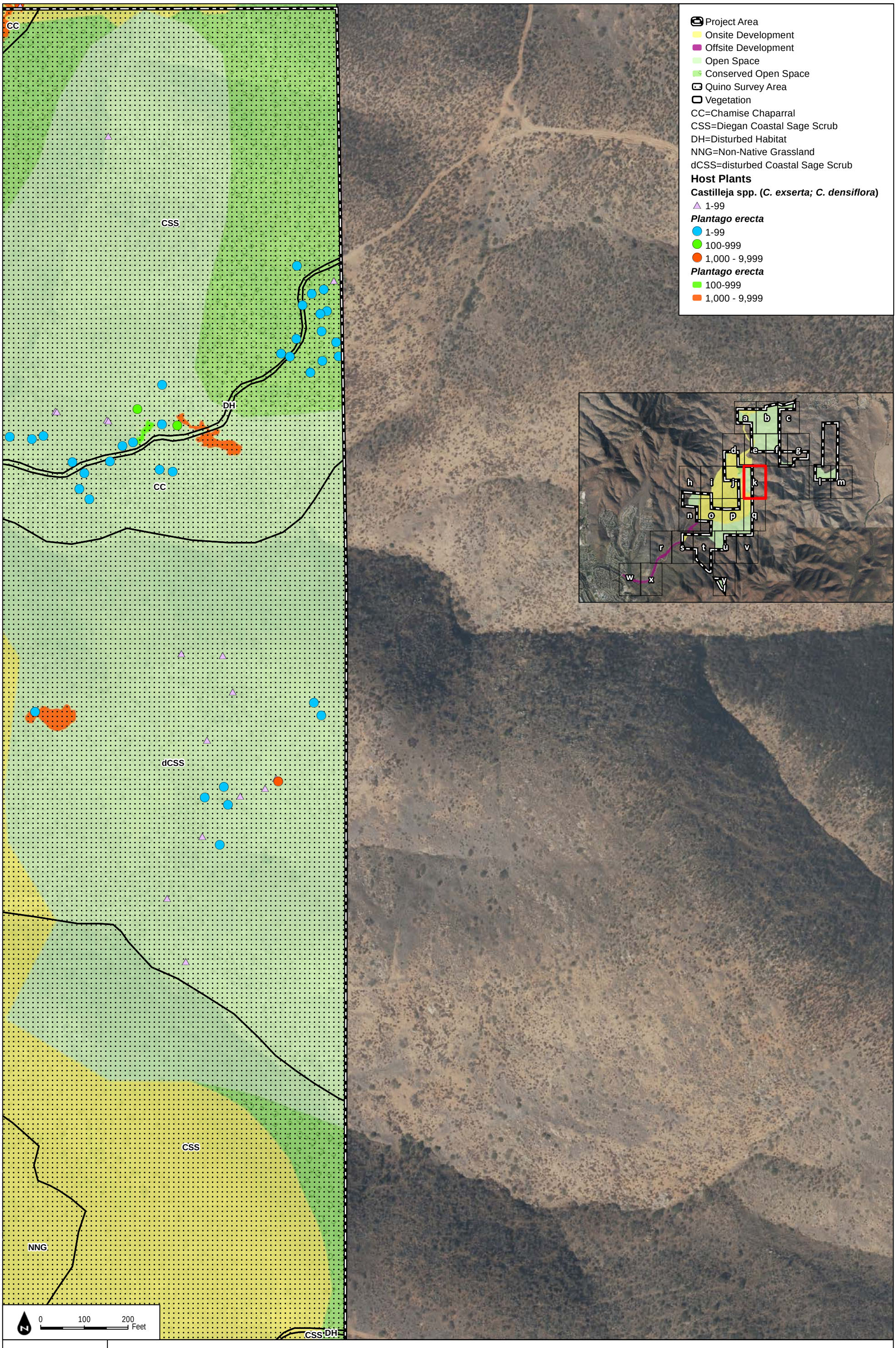
SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8j

2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8k
2016 Quino Host Plant Mapping and Recent Sightings

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

Project Area
Onsite Development
Offsite Development
Open Space
Conserved Open Space
Quino Survey Area
Vegetation
DH=Disturbed Habitat
SMX=Southern Mixed Chaparral

SMX
DH
SMX

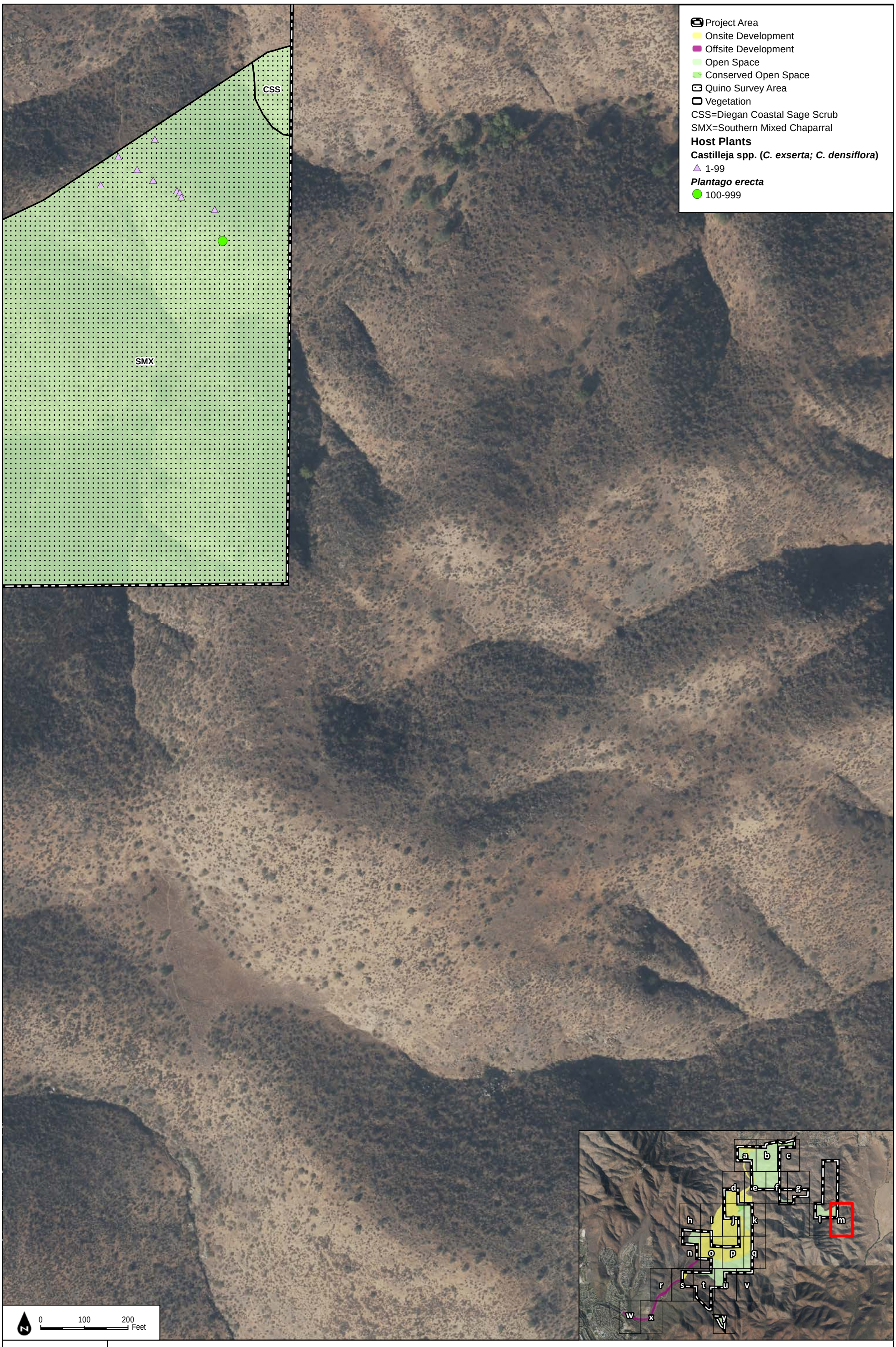
0 100 200 Feet

a b c d e f g h i j k l m n o p q r s t u v w x y

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8I
2016 Quino Host Plant Mapping and Recent Sightings

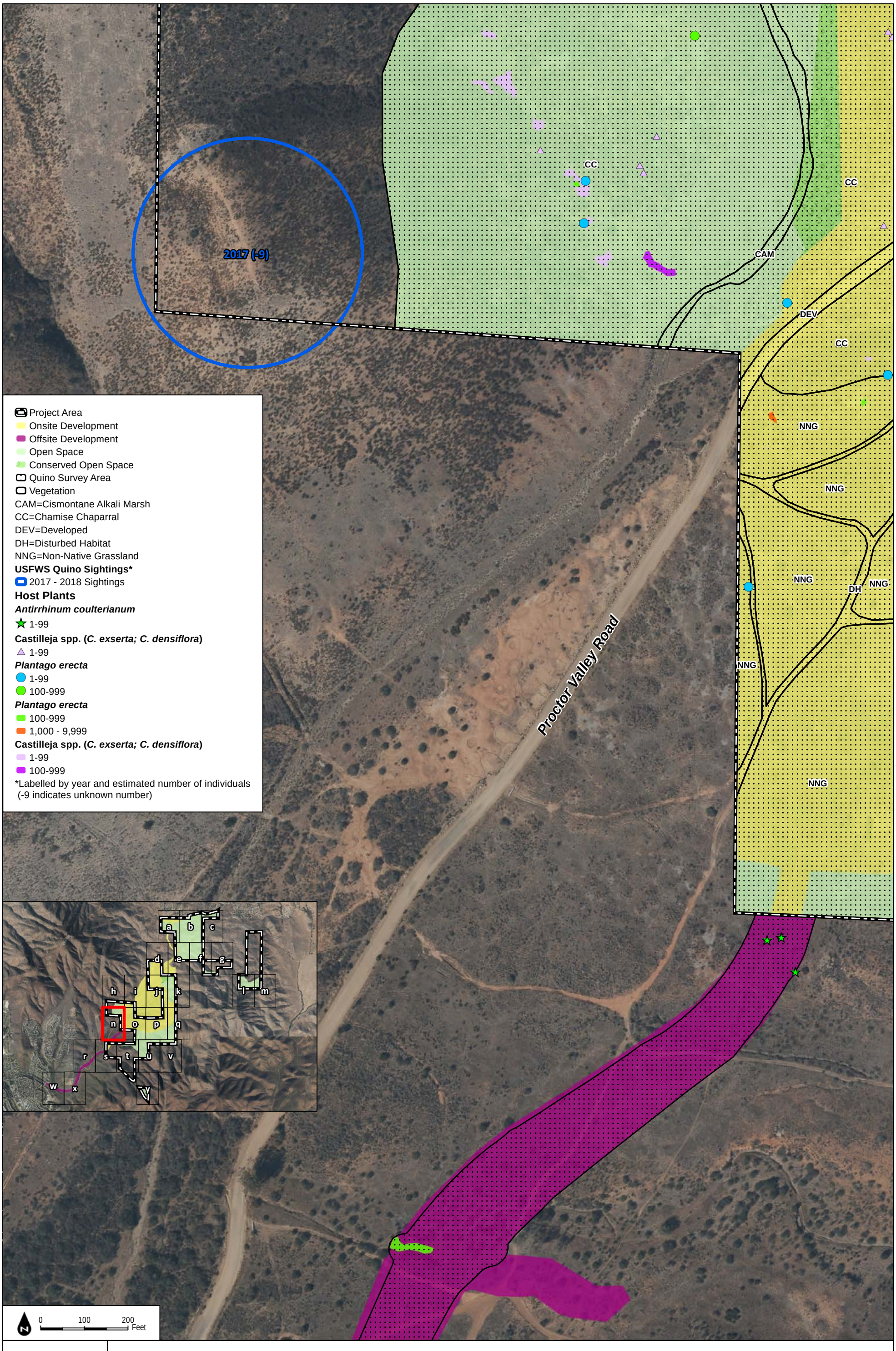


SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8m
2016 Quino Host Plant Mapping and Recent Sightings

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

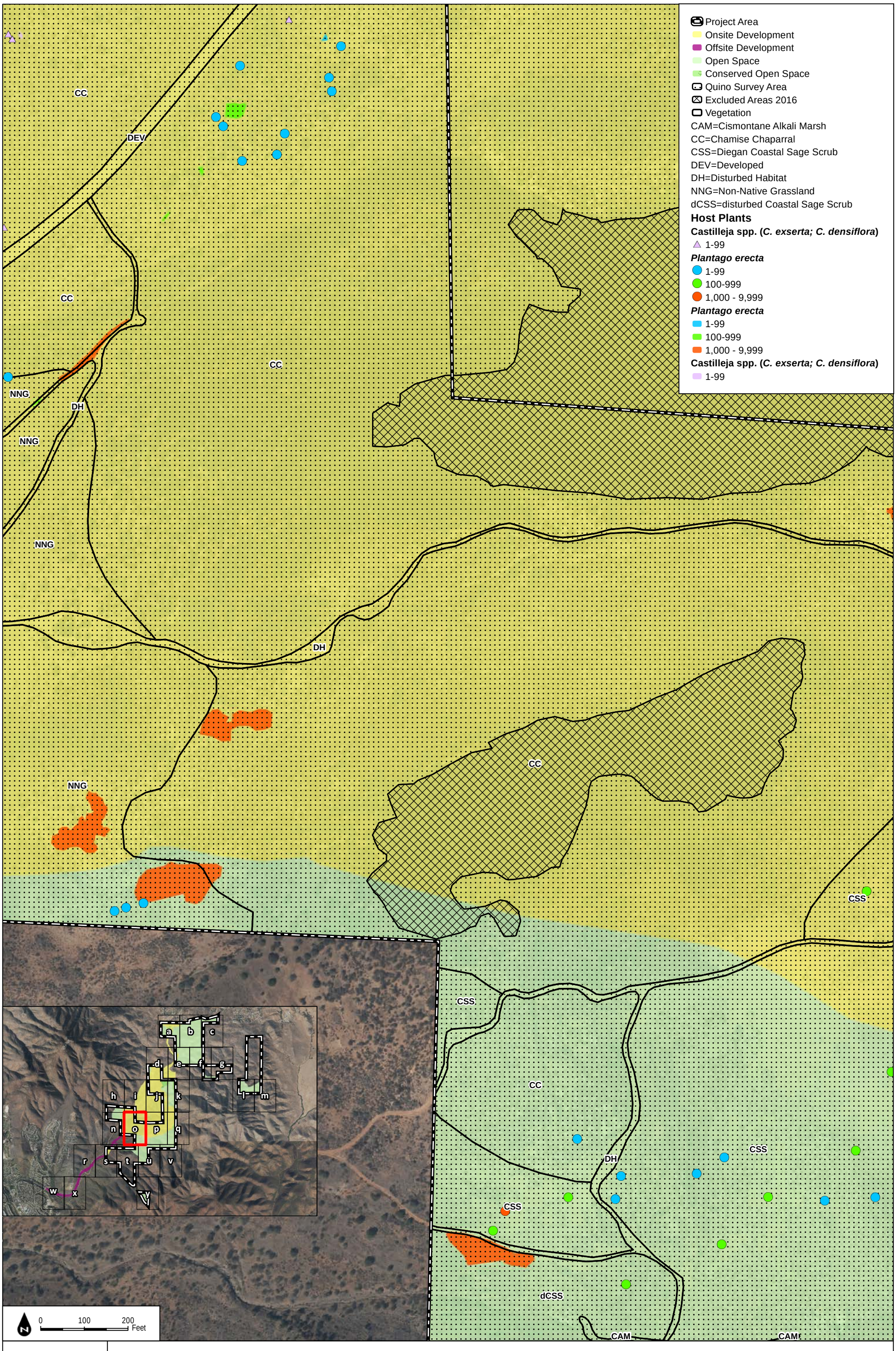


SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8n
2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8o
2016 Quino Host Plant Mapping and Recent Sightings

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

Project Area
Onsite Development
Offsite Development
Open Space
Conserved Open Space
Quino Survey Area
Excluded Areas 2016
Vegetation
CAM=Cismontane Alkali Marsh
CC=Chamise Chaparral
CSS=Diegan Coastal Sage Scrub
DH=Disturbed Habitat
NNG=Non-Native Grassland

Host Plants

Castilleja spp. (*C. exserta; C. densiflora*)
1-99

Plantago erecta
1-99
100-999
1,000 - 9,999

Plantago erecta
1,000 - 9,999

a b c d e f g h i j k l m n o p q r s t u v w x y

NNG
NNG
NNG
CC
CC
CSS
CSS
DH
CSS
CSS
CAM
CAM
CC

0 100 200 Feet

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

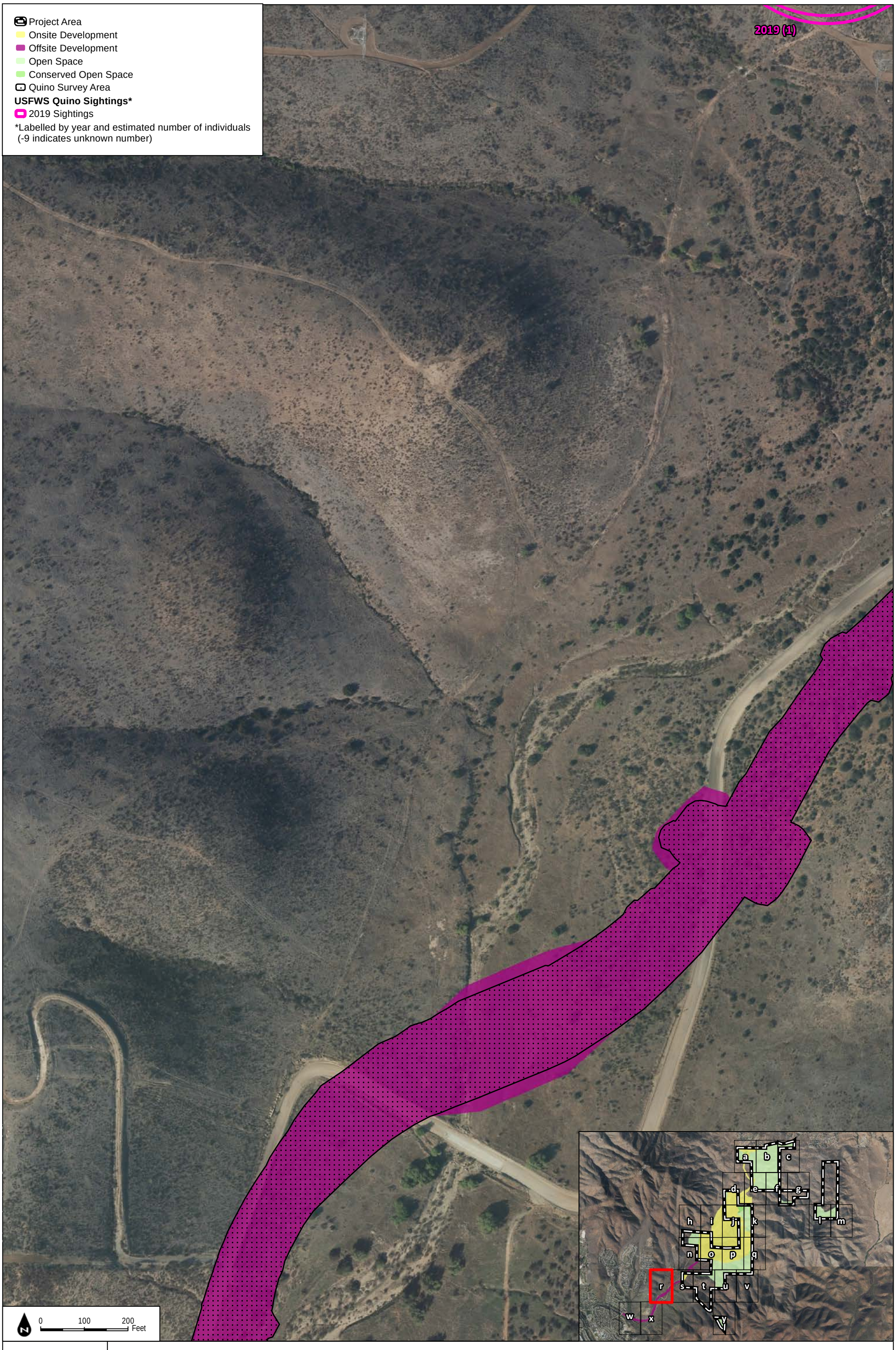
Figure 8p
2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8q
2016 Quino Host Plant Mapping and Recent Sightings

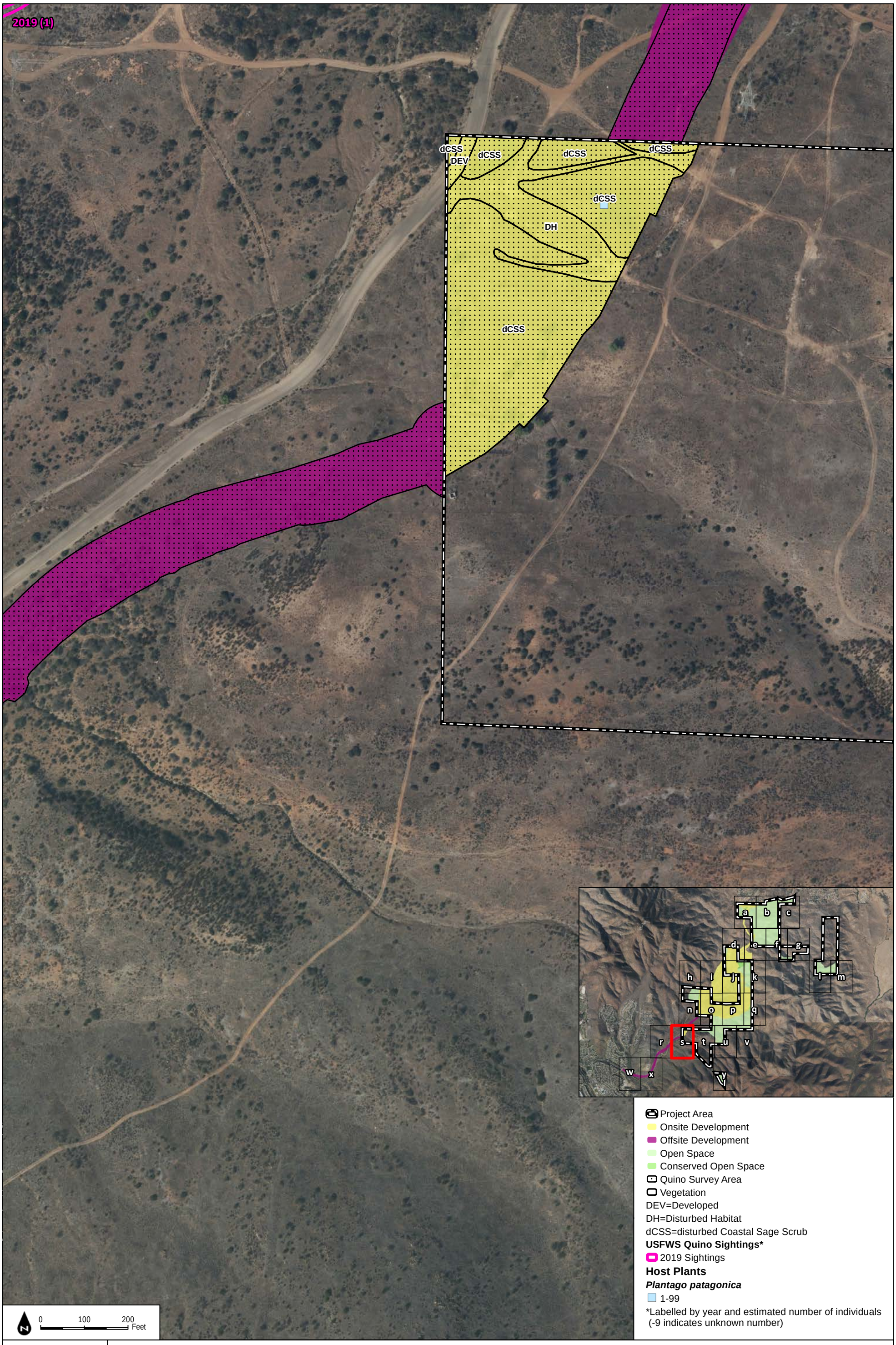


SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8r
2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8s

2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



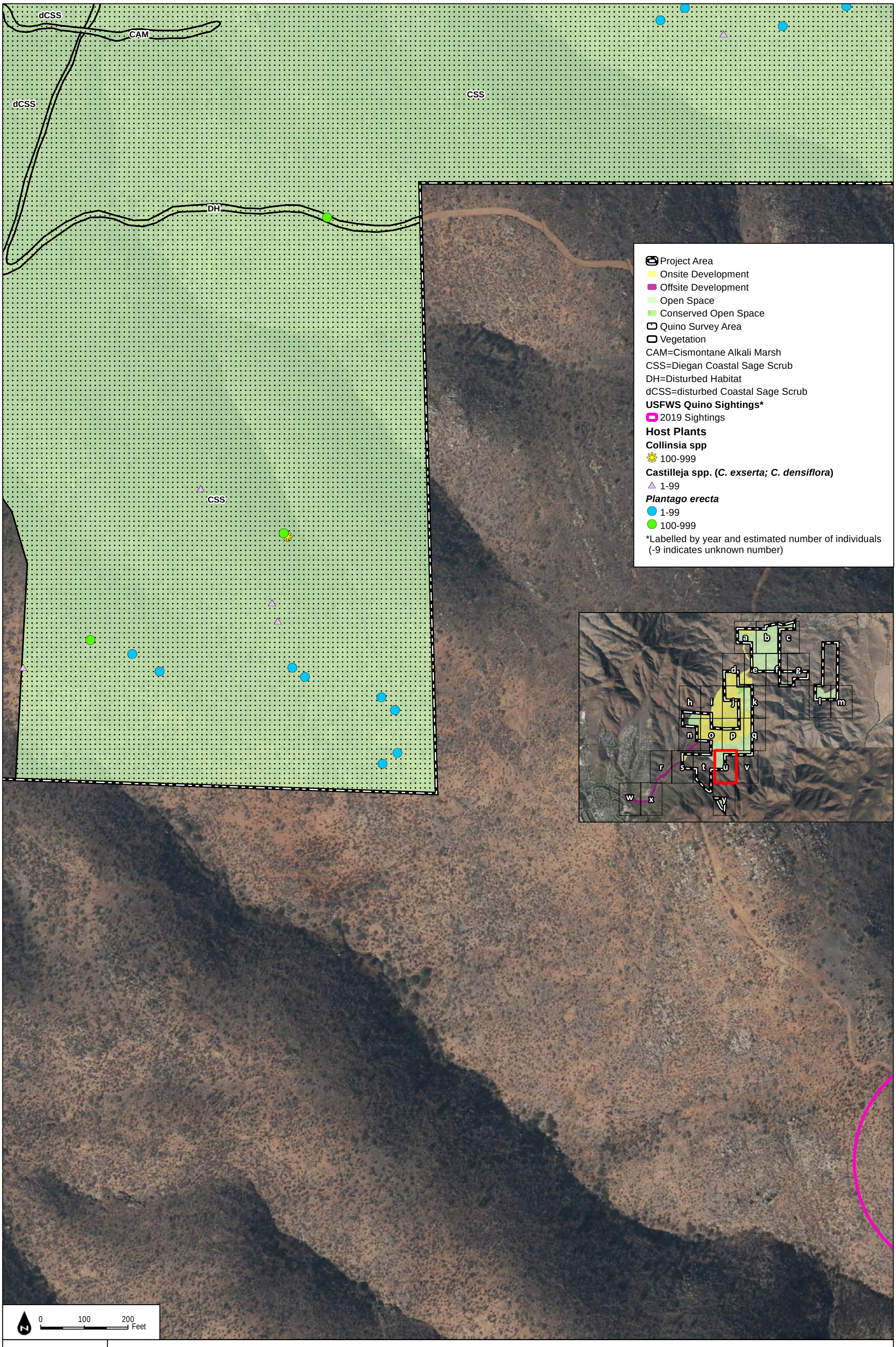
DUDEK

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8t

2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8u
2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



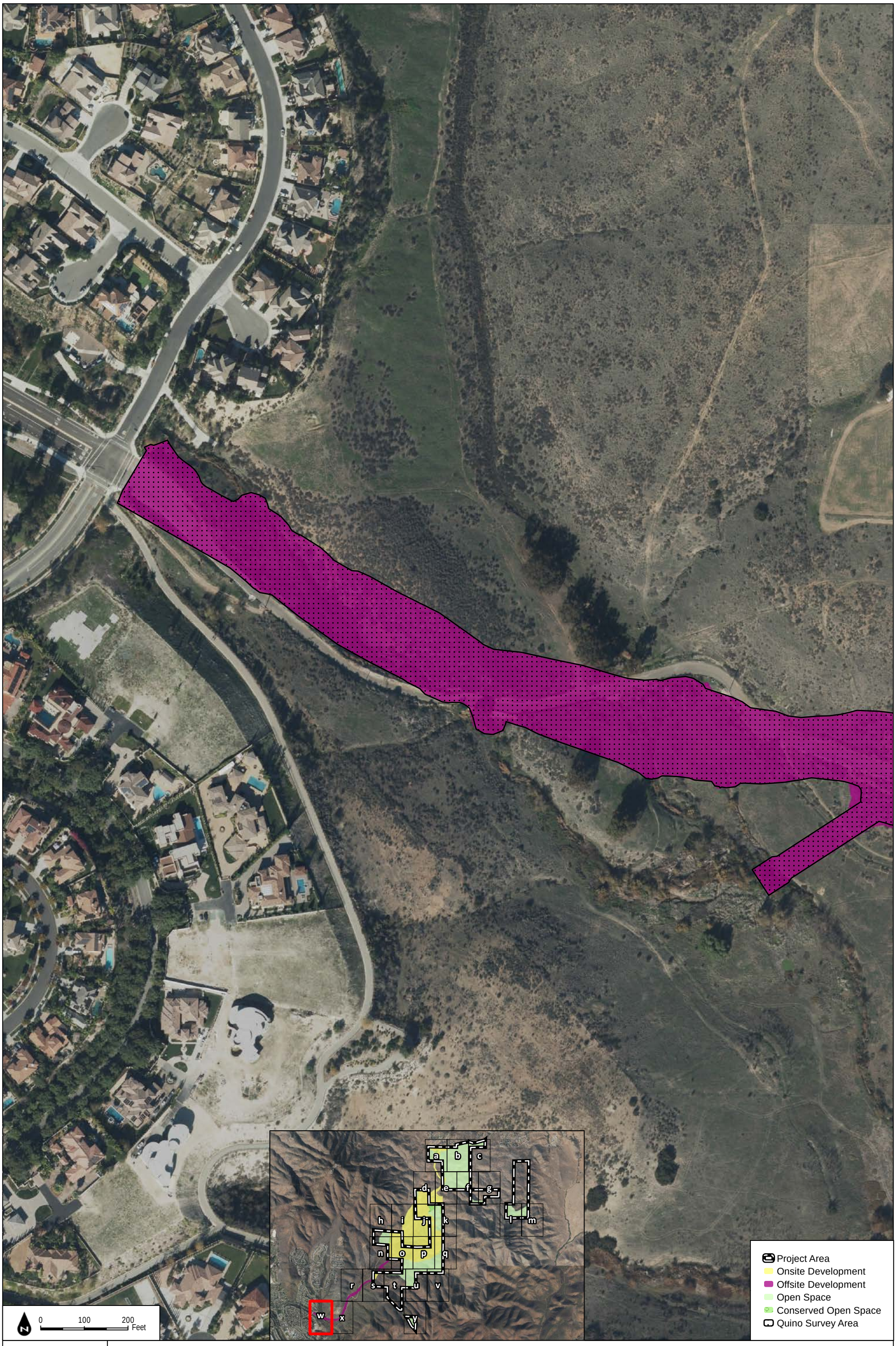
DUDEK

SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8v

2016 Quino Host Plant Mapping and Recent Sightings

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

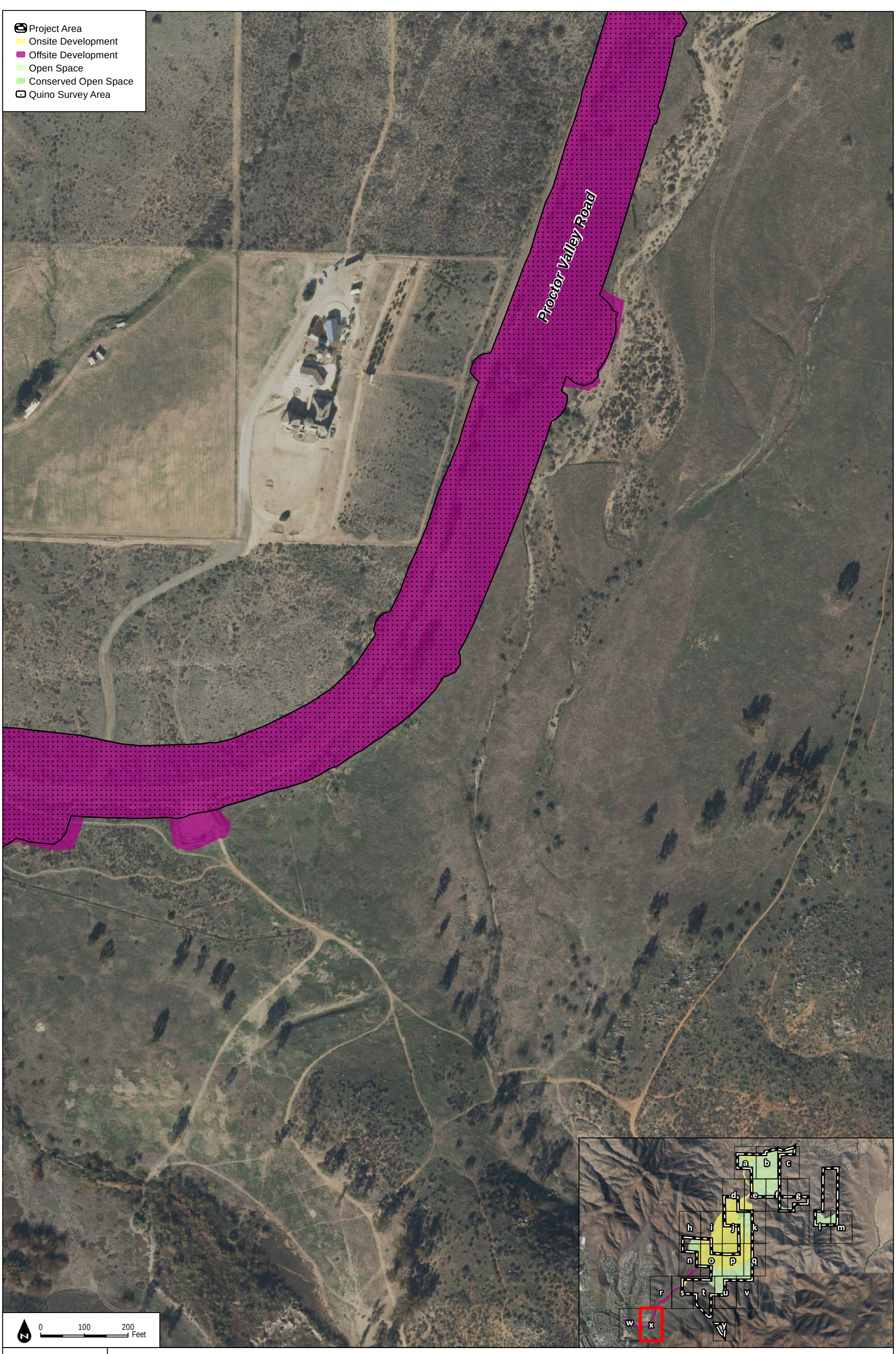


SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

DUDEK

Figure 8w

2016 Quino Host Plant Mapping and Recent Sightings



SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8x
2016 Quino Host Plant Mapping and Recent Sightings

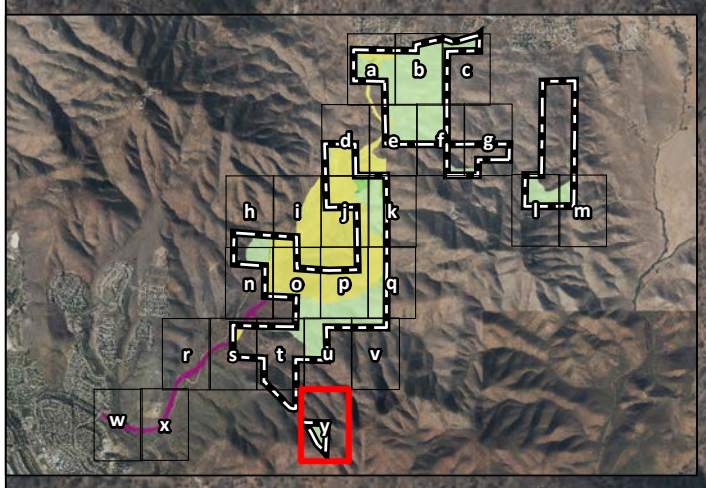
DUDEK

Project Area
Onsite Development
Offsite Development
Open Space
Conserved Open Space
Quino Survey Area
Vegetation
CC=Chamise Chaparral
CSS=Diegan Coastal Sage Scrub
DH=Disturbed Habitat

Host Plants

Castilleja spp. (*C. exserta; C. densiflora*)

1-99



CSS

DH
CC

0 100 200 Feet

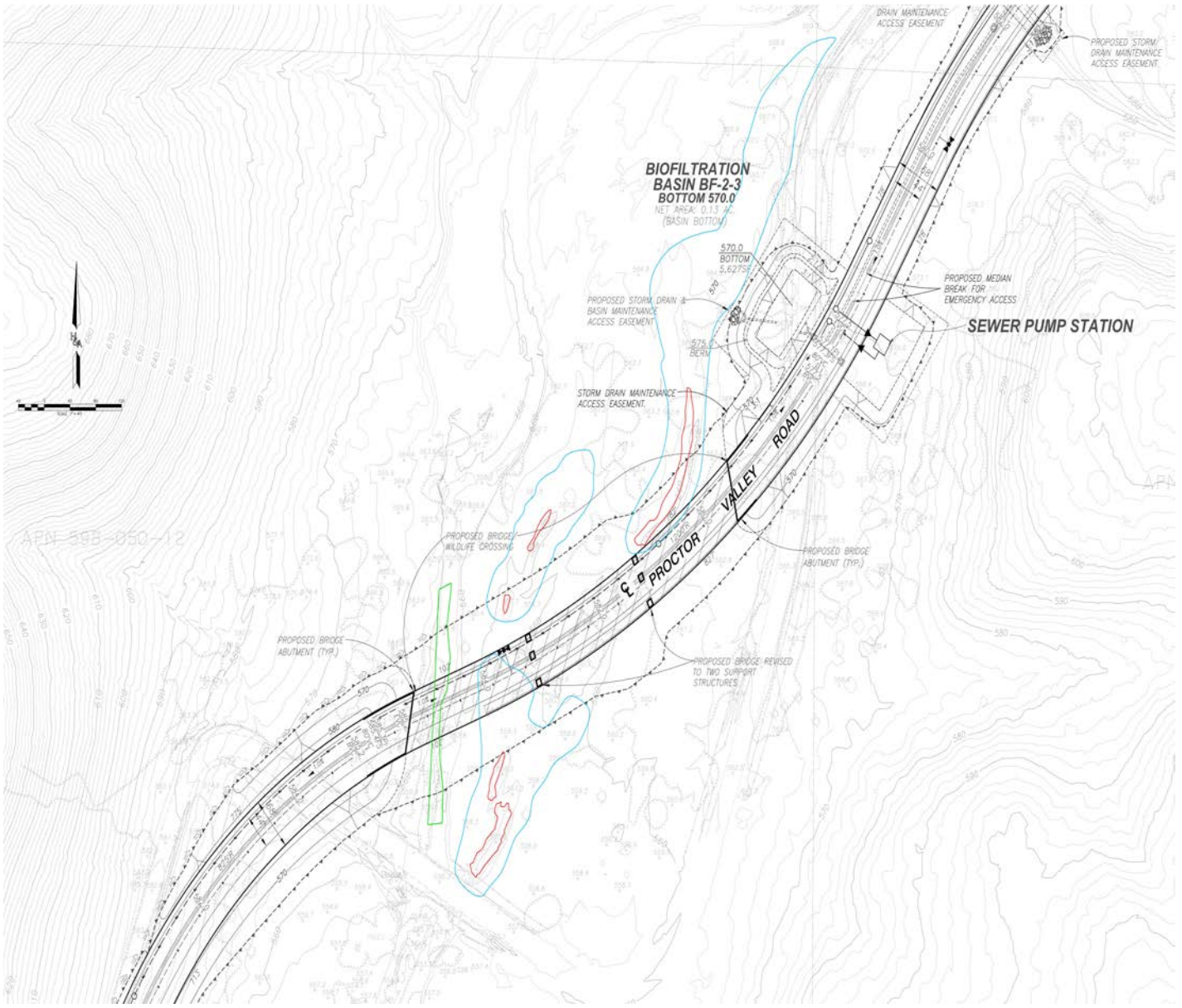
SOURCE: NAIP 2016, Hunsacker 2017, HELIX 2016

Figure 8y

2016 Quino Host Plant Mapping and Recent Sightings

DUDEK

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



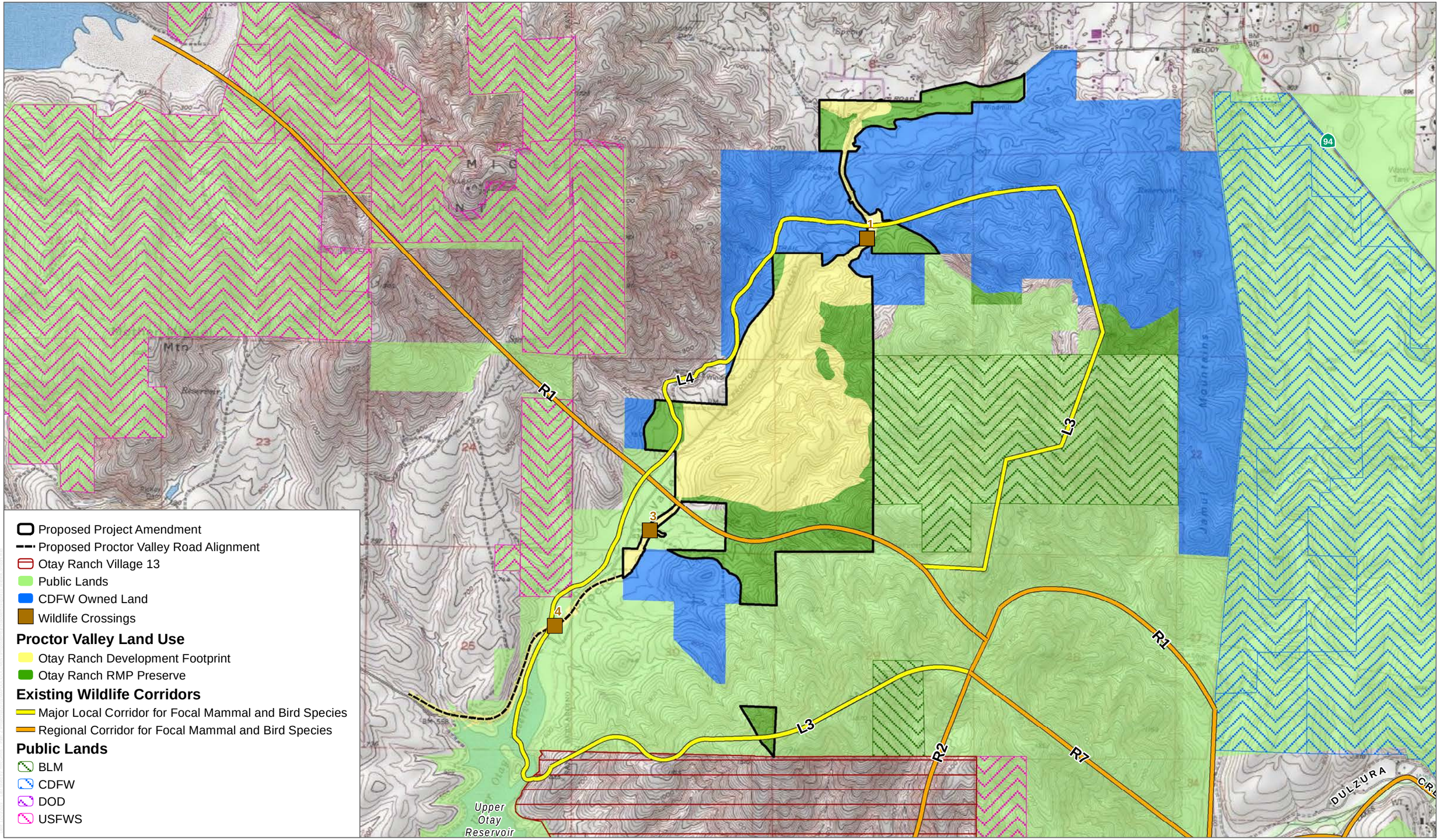
SOURCE: Hunsaker 2019

FIGURE 9

Vernal Pools within City of San Diego Cornerstone Lands

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

DUDEK



SOURCE: USGS 7.5-minute Topographic Map; Hunsaker 2019; SANGIS 2003; OGDEN 1992

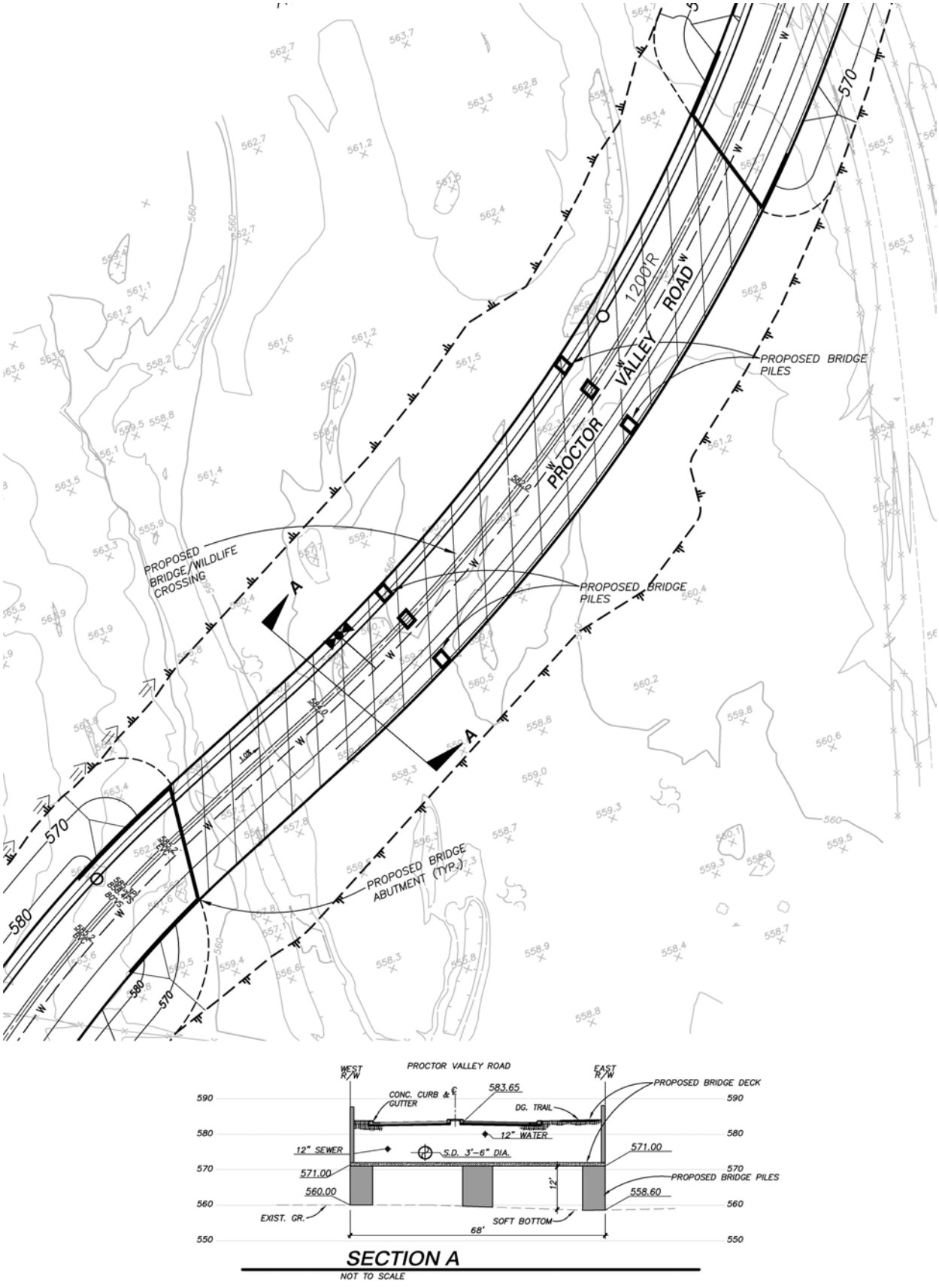
DUDEK

0 1,150 2,300 Feet

FIGURE 10

Wildlife Corridor and Habitat Linkages

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: Hunsaker 2019

FIGURE 11

Wildlife Crossings

Appendix A

Biological Equivalency Analysis for the Proposed Land Exchange between the State of California/California Department of Fish and Wildlife and GDCI Proctor Valley L.P.

605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

MEMORANDUM

To:	David Hubbard, Gatzke, Dillon & Balance LLP Liz Jackson, Jackson Pendo Development Company Rob Cameron, Jackson Pendo Development Company
From:	Patricia Schuyler, Dudek
Subject:	Review of the Proposed Land Exchange and CDFW's Land Conversion Evaluation Format
Date:	October 16, 2019
Attachment:	Attachment A – Biological Equivalency Analysis

The California Department of Fish and Wildlife (CDFW) has prepared a Land Conversion Evaluation (LCE) Format that directs preparation of LCE reports. There are five criteria outlined within "Section 2, Justification for Conversion" of the LCE Format that are considered the most important elements of the LCE. These five criteria should be reviewed and incorporated into any LCE discussion to determine whether a potential land conversion would be appropriate. Dudek reviewed the LCE Format and the five criteria, and prepared a Biological Equivalency Analysis (Attachment A) for the proposed land exchange between the State of California/CDFW and GDCI Proctor Valley L.P. (GDCI), as defined in the Dispute Resolution Agreement effective June 26, 2019, between GDCI, the County of San Diego, the U.S. Fish and Wildlife Service, and CDFW. This memo provides a summary of the five criteria described within the LCE Format, and provides the locations within the Biological Equivalency Analysis (Attachment A) where the criteria are addressed.

1 Property Name

The properties subject to review are as follows: (1) property currently owned by GDCI in Village 14 and Planning Area 16 that will be exchanged to CDFW (**R-15, R-16, PV-1, and PV-3**); (2) property currently owned by CDFW in Village 14 that will be exchanged to GDCI (**Parcels A, B, C, and E, and the right-of-way for Proctor Valley Road [PVR] North**); and (3) **R-14** within Planning Area 16, which is owned by GDCI and for which GDCI will grant a conservation easement to CDFW (see Figure 1 of Attachment A).

2 Justification for Conversion

Each criterion listed in the LCE Format is described below as it relates to the proposed land exchange. The Biological Equivalency Analysis for the proposed land exchange, Attachment A to this memo, describes the existing biological resources within the proposed land exchange parcels currently under review, including vegetation communities, sensitive plant and wildlife species, and wildlife movement. The Biological Equivalency Analysis also evaluates the biological equivalency of the proposed land exchange, and in turn, the justification for conversion.

2.a Listed Species or Species of Special Concern

Section 2.a. of the LCE Format provides the following guidance:

> **Listed species or species of special concern:** Habitat deemed important for the continued and future survival of listed species or species of special concern should not be converted unless the species has been extirpated from the site and there are no realistic expectations that it will recolonize or can be successfully reintroduced to the site in the future. Moreover, sensitive natural communities or high priority vegetation types (those listed by the Department's Vegetation Classification and Mapping Program - VegCAMP) should not be converted unless the site has suffered from irreversible impacts which eliminate the feasibility of its restoration. Reasonable documentation should be provided that extirpation, irreversible impacts, or improbability of recolonization exist. This will not preclude the conversion of the above types of properties as long as the Department retains conservation easements or deed restrictions, or is otherwise assured that the property's biological values will be protected in perpetuity. If parcels, or portions of parcels, adjacent to important or sensitive habitats are converted, adequate buffer zones will be retained by the Department to protect these habitats.

Both the CDFW and GDCI parcels proposed as part of the land exchange provide habitat for listed species and species of special concern as discussed in Sections 2.3.1 and 2.3.2 of Attachment A. Section 3.1 of Attachment A provides a full description of the vegetation communities and land cover types that will be placed into the Multiple Species Conservation Program (MSCP) Preserve. Sections 3.2.1 and 3.2.2 of Attachment A describe how the proposed land exchange would result in a significant increase in plant populations within the MSCP Preserve, and additional habitat for coastal California gnatcatcher (*Polioptila californica californica*) and Quino checkerspot butterfly (*Euphydryas editha quino*).

2.b Mitigation Lands

Section 2.b. of the LCE Format provides the following guidance:

> **Mitigation lands:** Lands received as mitigation pursuant to CESA or CEQA, or any other applicable statute, are subject to the terms of any corresponding Memoranda of Understanding (MOU) which may not allow for conversion. Should conversion be permissible, and if such lands meet the first criteria for conversion (2.a. above), they should be replaced by lands of comparable habitat value for the species subject to the MOU. The same applies to those properties for which the department retains a mitigation-related conservation easement or deed restriction.

None of the parcels within the CDFW portion of the proposed land exchange were purchased for mitigation; they were acquired to expand the San Diego National Wildlife Refuge to support the survival of sensitive plant and wildlife species. Therefore, these lands are eligible for conversion. The Biological Equivalency Analysis provides a full analysis regarding the comparable habitat value of the land exchange. Specifically, Table 4 of Attachment A provides the vegetation communities and habitat types within the land exchange parcels, and the net gain of habitat to the MSCP Preserve should the land exchange be approved. As shown in Table 4, 311.6 net *additional* acres will be conserved within the MSCP Preserve as a result of the proposed land exchange. Therefore, the proposed DRA Exchange would provide replacement of lands of comparable habitat value at an almost 2.5:1 ratio.

2.c General Wildlife/Habitat Lands

Section 2.c. of the LCE Format provides the following guidance:

> **General wildlife/habitat lands:** The parcel no longer retains the specific wildlife or habitat values for which it was acquired, or any other high priority habitat, or is unlikely to retain them over the long term due to changes in surrounding land use. In addition, the parcel cannot realistically be restored or managed to support the habitat values for which it was originally acquired. For example, habitat that has become increasingly isolated from other protected lands and is surrounded by increasing development pressures would be a candidate for conversion or exchange for habitat with higher values.

A full biological comparison of the DRA Exchange parcels and the benefits to the overall MSCP Preserve is described in Section 3 of Attachment A.

2.d Public Access lands

Section 2.d. of the LCE Format provides the following guidance:

> **Public access lands:** The parcel no longer retains the public recreational access values, or other values deemed important for department purposes, for which it was acquired. For example, DFW may own property which, when purchased, provided public access to federal lands for wildlife-related recreation; if those public lands have been privatized or closed to public use, the property may no longer retain its value as public access.

The CDFW-owned parcels, and the parcels proposed to be given to CDFW, contain unauthorized trails and internal dirt roads that provide for unauthorized public recreational opportunities. Because the public access is unauthorized, this guidance does not apply.

2.e Administrative or Management Problems

Section 2.e. of the LCE Format provides the following guidance:

> **Administrative or management problems:** Conversion of the parcel would eliminate a significant administrative or management problem. Some examples: the water necessary to manage a wetland parcel might be inadequate; illegal public activities on a parcel may not be manageable by existing personnel; conversion of lands might be necessary to consolidate landholdings. Criteria 1 and 2 must also be met.

As discussed throughout Section 3 of Attachment A, the proposed land exchange will eliminate the current fragmented configuration of CDFW and GDCI ownership. In summary, the proposed land exchange would result in a more logical, practical, and efficient land use and Preserve pattern that will be easier to manage. The consolidated development will result in less edge effects, providing for less human intrusion and the management issues that come with that development/Preserve interface (e.g., lighting, trash, noise, and others).

Attachment A

Biological Equivalency Analysis

Biological Equivalency Analysis for the Proposed Land Exchange between the State of California/California Department of Fish and Wildlife and GDCI Proctor Valley L.P.
Otay Ranch Village 14 and Planning Area 16
San Diego County, California

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
BRCA	Biological Resource Core Area
CDFW	California Department of Fish and Wildlife
County	County of San Diego
DRA	Dispute Resolution Agreement
EIR	Environmental Impact Report
GDCI	GDCI Proctor Valley L.P.
GDP	General Development Plan
MSCP	Multiple Species Conservation Program
PVR	Proctor Valley Road
RMP	Resource Management Plan
SRP	Subregional Plan

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1 Introduction

1.1 Purpose of the Report

This report provides a biological equivalency analysis of the proposed land exchange as defined in the Dispute Resolution Agreement (DRA), effective June 26, 2019, entered into by GDCI Proctor Valley L.P. (GDCI), the County of San Diego (County), the U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife (CDFW). The DRA includes a process, administered by the State Wildlife Conservation Board (WCB), through which GDCI and CDFW will exchange property each entity owns within Village 14 and Planning Area 16 in the Otay Ranch General Development Plan/Subregional Plan (Otay Ranch GDP/SRP) (City of Chula Vista and County of San Diego 1993) area (Figure 1, Project Location). The WCB operates under CDFW, but is a separate and independent board with authority and funding to carry out acquisition and development programs for wildlife conservation. As such, the WCB is the entity that has the authority to process the proposed land exchange between GDCI and CDFW (herein referred to as the "land exchange"). The DRA identifies approximately 339.7 acres[1] of GDCI-owned land to be transferred to CDFW and designated as hardline Preserve, 191.5 acres of GDCI-owned land to be designated as hardline Multiple Species Conservation Program (MSCP) Preserve by granting CDFW a conservation easement, and approximately 219.4 acres of CDFW-owned land approved for hardline development to be transferred to GDCI. The purpose of this report is to describe the existing biological resources within the proposed land exchange parcels currently under review (i.e., vegetation communities, special-status plants, special-status wildlife, and wildlife movement), and to evaluate the biological equivalency of an exchange of select parcels within Village 14 and Planning Area 16 from development to MSCP Preserve, and vice versa.

1.2 Background and History

On October 28, 1993, the County Board of Supervisors and the Chula Vista City Council adopted the Otay Ranch GDP/SRP. The County also certified the Final Program Environmental Impact Report (Final EIR) for the GDP/SRP and adopted Phase 1 Resource Management Plan (RMP). At the time that these approvals were issued, the entire Otay Ranch (approximately 23,000 acres) was controlled by a single owner, the Baldwin Company. In 1997, the Baldwin Company lost ownership of portions of Otay Ranch, resulting in a fragmented ownership pattern based on parcel boundaries that did not coincide with planning area or "Village" boundaries. In 2003, CDFW acquired noncontiguous portions of Otay Ranch Village 14 and Planning Area 16, and in 2014, GDCI acquired portions of Village 14 and Planning Area 16 and all of Planning Area 19.

On June 26, 2019, GDCI obtained approval from the County Board of Supervisors for a project proposed on property owned by GDCI in Village 14 and Planning Areas 16/19 (the "Approved Project"). Subsequent to the County's action on the Approved Project, GDCI, the U.S. Fish and Wildlife Service, the County, and CDFW executed the DRA, which includes the proposed land exchange as part of a process for revising the project's development footprint and facilitating incidental take authorization for activities within that footprint. This report analyzes the biological equivalency of the parcels included in the proposed land exchange. The portions of the CDFW-owned land within Village 14 subject to the proposed land exchange are currently designed for hardline development within the Otay GDP/SRP, and although CDFW currently maintains these areas as open space, they were never designated as MSCP Preserve, and were, therefore, never included in the 101,268-acre hardline MSCP Preserve system as identified in the MSCP Subarea Plan (County of San Diego 1997) and Implementing Agreement (see Figure 2, Regional Planning Context). As such, the proposed land exchange does not propose to develop any land that was originally designated as Otay Ranch RMP Preserve in the Otay GDP/SRP that was subsequently incorporated in the MSCP Preserve.

[1] The acreages presented in this document vary slightly from the Dispute Resolution Agreement. The acreages presented here are based on engineering calculations prepared in concert with the legal descriptions.

1.3 Proposed Land Exchange Summary

For purposes of this document, the proposed land exchange is depicted in Figure 3, Proposed Land Exchange, and is limited to the following: property currently owned by GDCI in Village 14 and Planning Area 16 that will be exchanged to CDFW (R-15, R-16, PV1, and PV3); property currently owned by CDFW in Village 14 that will be exchanged to GDCI (Parcels A, B, C, and E, and the right-of-way for Proctor Valley Road [PVR] North); and R-14 within Planning Area 16, which is owned by GDCI and for which GDCI will grant a conservation easement to CDFW.

Specifically, with respect to ownership, the land exchange would do the following:

- Grant title to portions of the approved development and Limited Development Areas within Planning Area 16 to CDFW for inclusion in the MSCP Preserve (specifically R-15 and R-16).
- Grant title to the areas known as PV1 and PV3 to CDFW for inclusion in the MSCP Preserve.
- Grant a conservation easement to CDFW over the area referred to as R-14 in Planning Area 16 for conservation purposes as outlined in the DRA.
- Grant title to the central portion of Village 14 (the areas designated as Areas A, B, C, and E in Figure 3) and the right-of-way for PVR North to GDCI for development.

When combined with GDCI's 435.3 acres of land already designated as Otay Ranch RMP Preserve for the Approved Project, the land exchange will eliminate the current fragmented configuration of CDFW and GDCI ownership, and improve the MSCP Preserve design by concentrating development within the center of Village 14 and eliminating development from GDCI's ownership in Planning Area 16. Thus, the land exchange would result in a more logical, practical, and efficient land use and Preserve pattern.

Specifically, with respect to the MSCP Preserve design, the land exchange would do the following:

- Enhance Preserve design by designating developable lands as hardline MSCP Preserve lands in Planning Area 16 and areas known as PV1 and PV3 in Village 14.
- ~~Eliminate close to 13.2 miles of Preserve edge effects associated with the Approved Project.~~The approximately 18.9 miles of preserve/development edge associated with the Approved Project is reduced to approximately 5.8 miles with land exchange and subsequent project. This is a reduction of approximately 13.1 miles, or nearly 70%, of edge effects.
- Reduce the overall Otay Ranch GDP/SRP development footprint by approximately 311.6 acres and designate that acreage to the MSCP Preserve system, thereby increasing the hardline MSCP Preserve by 311.6 acres.
- Preserve a large contiguous block of connected MSCP Preserve lands, which will supplement and preserve a "core" biological area within the Proctor Valley area (Figure 2). This contiguous block of Preserve would add to the adjacent off-site CDFW land, National Wildlife Refuge land, Bureau of Land Management lands, and Otay Ranch RMP Preserve lands owned by others (Figure 2).
- Eliminate approximately 18 acres of impacts associated with three roads within MSCP Preserve and the Jamul Ecological Reserve. One road would cross MSCP Preserve lands to connect Village 14 to PV1. The other two connector roads are located within hardline development footprint in Planning Area 16, but are also within the Jamul Ecological Reserve. Per Sections 1.9.3.2 and 1.9.3.3 of the MSCP County of San Diego Subarea Plan (County of San Diego 1997), these roads are an allowable use within the Preserve. By designating PV1, R-15 and R-16 as hardline MSCP preserve pursuant to DRA, these roads will no longer be necessary.

2 Existing Conditions

2.1 Site Description

Village 14 and Planning Area 16 are located in Otay Ranch, southwest of the unincorporated community of Jamul and northeast of Bonita. The Otay Reservoir System is located south of Village 14. Specifically, Village 14 and Planning Area 16 are located primarily southeast of PVR 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). The approximate center is located at a latitude and longitude of 32°40' 57" north and 116°54' 24" west.

The entirety of Village 14 and Planning Area 16 is undeveloped, with the exception of PVR. The on-site elevation ranges between 525 and 1,650 feet above mean sea level. Topography is diverse and contains a flat valley along PVR, along with rolling hills. Village 14 and Planning Area 16 are bordered by San Miguel Mountain and the Jamul Mountains immediately to the northwest and southeast, with the foothills of these mountains encroaching into these areas. The two land exchange parcels in the eastern portions of Planning Area 16 (R-15 and R-16) are located within portions of the Jamul Mountains and contain the highest elevations.

2.2 Habitat Types and Vegetation Communities

Table 1 provides a detailed breakdown of the habitat types within each parcel included in the land exchange. The parcels included in the land exchange will hereinafter be referred to collectively as the "land exchange parcels" (Figures 4a through 4d, Biological Resources).

Table 1. Vegetation Communities and Habitat Types within the Land Exchange Parcels

Habitat Type	Land Exchange Parcel (acres)*											
	*GDCI Parcels Exchanged to CDFW***						*CDFW Owned Parcels Exchanged to GDCI*					
	PV1	*PV3*	*R-14*	*R-15*	*R-16*	*Total Acres*	*Parcel A*	*Parcel B*	*Parcel C*	*Parcel E*	*PVR N*	*Total Acres*
MSCP Tier I												
Cismontane Alkali Marsh	–	–	0.2	–	–	**0.2**	0.1	–	–	–	–	**0.1**
Southern Willow Scrub	–	–	0.2	–	–	**0.2**	–	–	–	–	0.1	**0.1**
MSCP Tier II												
Diegan Coastal Sage Scrub	–	51.0	149.6	36.6	116.3	**353.5**	–	–	<0.1	3.6	3.2	**6.8**
Disturbed Diegan Coastal Sage Scrub	–	28.2	9.3	–	–	**37.5**	–	–	0.7	–	–	**0.7**
MSCP Tier III												
Chamise Chaparral	18.9	45.7	–	–	–	**64.6**	126.3	23.2	19.2	22.1	3.3	**194.1**
Disturbed Chamise Chaparral	–	0.8	–	–	–	**0.8**	–	–	–	–	–	–
Southern Mixed Chaparral	–	–	–	13.3	25.5	**38.8**	–	–	–	–	–	–
Non-Native Grassland	–	–	28.3	–	–	**28.3**	–	–	–	2.4	3.4	**5.8**
MSCP Tier IV												
Eucalyptus Woodland	–	–	–	–	–	–	3.0	–	–	–	–	**3.0**
Disturbed Habitat	–	2.7	4.0		0.1	**6.8**	0.7	1.7	1.6	1.3	0.8	**6.1**
Developed	–	–	–	–	–	–	–	1.0	0.3		1.6	**2.9**
Other												
Open Water	–	–	–	–	0.4	**0.4**	–	–	–	–	–	–
Total Acres	**18.9**	**128.4**	**191.5**	**49.9**	**142.5**	**531.1**	**130.1**	**25.9**	**21.8**	**29.4**	**12.3**	**219.5**

GDCI = GDCI Proctor Valley L.P.; CDFW = California Department of Fish and Wildlife; PVR N = Proctor Valley Road North; MSCP = Multiple Species Conservation Program

* Acreages do not include the 18 acres of road impacts within MSCP Preserve and the Jamul Ecological Reserve that would be eliminated by designated PV1, R-15 and R-16 as MSCP Preserve. This is an added benefit of the land exchange.

** R-14 will be designated hardline MSCP Preserve by granting CDFW a conservation easement. The remaining 339.7 acres of GDCI-owned land will be exchanged to CDFW and designated hardline MSCP Preserve.

2.3 Summary of Sensitive Resources within Land Exchange Parcels

As part of the technical foundation for the Approved Project's certified Final EIR,[2] Dudek biologists and/or other qualified biologists conducted focused surveys and/or habitat assessments for the following sensitive biological resources in association with the Approved Project: focused surveys for rare plants; a habitat assessment, larval host plant survey, and protocol surveys for Quino checkerspot butterfly (*Euphydryas editha quino*); focused protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*); a habitat assessment and four-pass protocol burrowing owl survey (*Athene cunicularia*); a habitat assessment for arroyo toad (*Anaxyrus californicus*); a habitat assessment and protocol surveys for Hermes copper butterfly (*Lycaena hermes*); a nest survey and habitat assessment for golden eagle (*Aquila chrysaetos*); 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 (*Spea hammondii*).

2.3.1 Sensitive Plants Species

As included in the certified Final EIR for the Approved Project, focused plant surveys were conducted to determine the presence or absence of special-status plant species within the portions of Village 14 and Planning Area 16 owned by GDCI, and within the portions of Village 14 owned by CDFW. Table 2 provides a list of the plant species observed within the land exchange parcels.

[2] Refer to Section 2.4 of the Final Environmental Impact Report for the Otay Ranch Village 14 and Planning Areas 16/19 Project (County of San Diego 2019) for a full description of the focused surveys conducted for the Approved Project. Section 3.1.4 of the DRA states that CDFW will rely on the County-certified Project EIR for its consideration of any action regarding or pursuant to the DRA, and the State Wildlife Conservation Board will rely on the County-certified Project EIR for consideration of the proposed land exchange.

Table 2. Special-Status Plant Species within the Land Exchange Parcels

Species	Regulatory Status: Federal/State/ County MSCP/CRPR	Land Exchange Parcel*										
		GDCI Parcels Exchanged to CDFW					*CDFW Parcels Exchanged to GDCI*					
		PV3	*R-14*	*R-15*	*R-16*	*Total*	*A*	*B*	*C*	*E*	*PVR N*	*Total*
Artemisia palmeri San Diego sagewort	None/None Not Covered/4.2	–	2	8	–	10	–	–	–	–	–	–
Bloomeria clevelandii San Diego goldenstar	None/None Covered/1B.1	17	31	72	1,192	1,312	–	–	–	–	–	–
Brodiaea orcuttii Orcutt's brodiaea	None/None Covered/1B.1	–	83	–	–	83	–	–	–	–	–	–
Dichondra occidentalis Western dichondra	None/None Not Covered/4.2	0.17 acres	–	–	<0.01 acres	0.18 acres	–	–	–	–	–	–
Dudleya variegata Variegated dudleya	None/None Covered, NE/1B.2	35	–	–	–	35	–	–	–	–	–	–
Ferocactus viridescens San Diego barrel cactus	None/None Covered/2B.1	36	–	–	–	36	–	–	–	–	–	–
Harpagonella palmeri Palmer's grapplinghook	None/None Not Covered/4.2	40	–	–	–	40	–	–	–	–	–	–
Holocarpha virgata ssp. *elongata* Graceful tarplant	None/None Not Covered/4.2	5	15	–	–	20	–	–	–	–	–	–
Iva hayesiana San Diego marsh-elder	None/None Not Covered/2B.2	653	413	282	–	1,348	401	–	–	–	4	404
Juncus acutus ssp. *leopoldii* Southwestern spiny rush	None/None Not Covered/4.2	–	31	12	–	43	–	–	–	–	–	–
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None/None Not Covered/4.3	112	–	–	–	112	–	–	–	–	–	–
Pentachaeta aurea ssp. *aurea* Golden-rayed pentachaeta	None/None Not Covered/4.2	2,210	10,187	–	80	12,477	–	–	–	–	–	–

Table 2. Special-Status Plant Species within the Land Exchange Parcels

Species	Regulatory Status: Federal/State/ County MSCP/CRPR	Land Exchange Parcel*										
		GDCI Parcels Exchanged to CDFW					*CDFW Parcels Exchanged to GDCI*					
		PV3	*R-14*	*R-15*	*R-16*	*Total*	*A*	*B*	*C*	*E*	*PVR N*	*Total*
Salvia munzii Munz's sage	None/None Not Covered/2B.2	74	163	2,086		2,323	413	25	69	180	–	686
Selaginella cinerascens Ashy spike-moss	None/None Not Covered/4.1	0.19 acres	1.50 acres	0.48 acres	1.66 acres	3.83 acres	<0.01 acres	<0.01 acres	–	–	–	<0.01 acres
Stipa diegoensis San Diego County needle grass	None/None Not Covered/4.2	–	42	79	20	141	–	–	–	–	–	–
Viguiera laciniata San Diego County viguiera	None/None Not Covered/4.2	1,646	4,147	2,394	1,765	9,952	–	–	–	–	2	–

Notes: All numbers are individuals, except where noted as acres.
GDCI = GDCI Proctor Valley L.P.; CDFW = California Department of Fish and Wildlife; PVR N = Proctor Valley Road North
* Focused surveys did not result in the detection of any rare plants within PV1.

Status Legend
County MSCP = County of San Diego Multiple Species Conservation Program Covered Species
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 (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

2.3.2 Sensitive Wildlife Species

As provided in the certified Final EIR for the Approved Project (County of San Diego 2019), surveys for special-status species were conducted for all of Village 14 and Planning Area 16 within GDCI ownership and for portions of Village 14 owned by CDFW. These surveys documented covered species residing in and surrounding the proposed land exchange parcels.[3] The following MSCP Covered Species were observed within those survey areas (locations observed within the land exchange parcels, if recorded, are also noted): Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*, Parcel R-14), golden eagle, burrowing owl (sign only, Parcel A), northern harrier (Parcel R-14), coastal California gnatcatcher (Parcels R-16 and PV3), western bluebird (*Sialia mexicana*), mule deer (*Odocoileus hemionus*), cougar (*Puma concolor*), American badger burrow (*Taxidea taxus*, Proctor Valley Road North (PVR North)), and Blainville's horned lizard (Parcel B).

Additional special-status wildlife species observed within the portions of Village 14 and Planning Area 16 surveyed included San Diego fairy shrimp (*Branchinecta sandiegonensis*), red diamond rattlesnake (*Crotalus ruber*), western spadefoot (Parcels B, PV3, and PVR North), grasshopper sparrow (*Ammodramus savannarum*), red-shouldered hawk (*Buteo lineatus*), turkey vulture (*Cathartes aura*), California horned lark (*Eremophila alpestris actia*, Parcel R-14), loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Setophaga petechia*), common barn-owl (*Tyto alba*), monarch (*Danaus plexippus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*, Parcels E, R-14, R-15, and PV3), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), rosy boa (*Lichanura trivirgata*), long-eared owl (*Asio otus*), and white-tailed kite (*Elanus leucurus*).

Although no Quino Checkerspot butterflies were observed during the surveys conducted in 2015 and 2016, the biologists were able to map potential habitat for the species, as well as locations of host plants[4]. Table 3 quantifies the Quino checkerspot butterfly suitable habitat and resources by land exchange parcel. These areas are shown in Figures 5a through 5d, 2016 Quino Host Plant Mapping and Quino Checkerspot Butterfly Sightings. In addition, Table 3 provides the quantification of critical habitat within each of the parcels, including the amount of non-surveyed areas within that critical habitat. Non-surveyed areas are those areas where habitat deemed unsuitable for Quino checkerspot butterfly (i.e., no physical or biological features for the species), and thus not surveyed.

[3] Refer to Section 2.4 of the Final Environmental Impact Report for the Otay Ranch Village 14 and Planning Areas 16/19 Project (County of San Diego 2019) for a full description of the focused surveys conducted for the Approved Project.

[4] Since the completion of the protocol surveys conducted in 2015-2016, biologists from the U.S. Fish and Wildlife Service (USFWS), CDFW and non-agency biologists accompanying the USFWS during the Quino checkerspot butterfly "flight seasons" of 2017, 2018, and 2019, have made anecdotal observations of individuals at or near the land exchange parcels. These sightings from 2017-2019 were not made pursuant to protocol surveys, and formal survey reports including survey routes and areas covered have not been produced. The locations of these sighting, which are derived from the USFWS database, are provided on Figures 5a, 5b, and 5c.

Table 3. Quino Checkerspot Butterfly Resources and Critical Habitat within the Land Exchange Parcels

Land Exchange Parcel	Quino Checkerspot Butterfly Resources (acres)				Quino Checkerspot Butterfly Critical Habitat (acres)		
	Non-Surveyed Areas	*Potential Habitat*	*Host Plants*	*Occupied Habitat per Protocol Surveys*	*Critical Habitat Designation*	*Non-Surveyed Areas*	*Critical Habitat*
GDCI Parcels Exchanged to the CDFW							
PV1	0	18.9	0.52	0	18.9	0	18.9
PV3	3.2	125.2	0.90	0	128.4	3.2	125.2
R-14	0	191.5	0.51	0	7.5	0	7.5
R-15	0	49.9	<0.01	0	0	0	0
R-16	0	142.5	0.24	0	0	0	0
Subtotal	*3.2*	*528.1*	*2.17*	*0*	*154.8*	*3.2*	*151.6*
CDFW Parcels Exchanged to GDCI							
Parcel A	34.1	96.0	1.07	0	130.1	34.0	96.1
Parcel B	0	25.9	0.36	0	25.9	0	25.9
Parcel C	0	21.7	0.09	0	21.8	0	21.8
Parcel E	0	29.4	0.20	0	29.4	0	29.4
PVR N	0	12.3	0.04	0	10.6	0	10.6
Subtotal	*34.1*	*184.4*	*1.76*	*0*	*217.7*	*34.0*	*183.7*
Net Gain	**–**	**+342.7**	**+0.41**	**0**	***-62.9***	***+30.8***	***-32.1***

PVR N = Proctor Valley Road North

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3 Biological Equivalency Analysis

3.1 Habitat Types and Vegetation Communities

With the proposed land exchange, CDFW will acquire property containing sensitive upland and wetland habitats, placing those lands within the MSCP Preserve and providing for their long-term protection (Table 4, Figures 4a through 4d). Overall, 311.6 net additional acres will be conserved within the MSCP Preserve. Specifically, the land exchange will result in a net increase of 383.5 acres of MSCP Tier II coastal sage scrub habitat preservation and a decrease of MSCP Tier III habitat. Note that the CDFW parcels exchanged to GDCI were included in hardline development in the MSCP and County MSCP Subarea Plan. Therefore, although the land exchange results in a decrease in lower tier habitat types, there is no reduction in the habitat conservation goals identified in Table 1-2 of the County MSCP Subarea Plan.

Table 4. Vegetation Communities and Habitat Types within the Land Exchange Parcels (acres)

Habitat Type	GDCI Parcels Exchanged to CDFW	CDFW Parcels Exchanged to GDCI	Overall Change to MSCP Preserve
MSCP Tier I			
Cismontane Alkali Marsh	0.2	-0.1	+0.1
Southern Willow Scrub	0.2	-0.1	+0.1
Subtotal	*0.4*	*-0.2*	*+0.2*
MSCP Tier II			
Diegan Coastal Sage Scrub	353.5	-6.8	+346.7
Disturbed Diegan Coastal Sage Scrub	37.5	-0.7	+36.8
Subtotal	*391.0*	*-7.5*	*+383.5*
MSCP Tier III			
Chamise Chaparral	64.6	-194.1	-129.5
Disturbed Chamise Chaparral	0.8	–	+0.8
Southern Mixed Chaparral	38.8	–	+38.8
Non-Native Grassland	28.3	-5.8	+22.5
Subtotal	*132.5*	*-199.9*	*-67.4*
MSCP Tier IV			
Eucalyptus Woodland	–	-3.0	-3.0
Disturbed Habitat	6.8	-6.1	+0.7
Developed	–	-2.9	-2.9
Subtotal	*6.8*	*-12.0*	*-5.2*
Other			
Open Water	0.4	–	+0.4
Total Acres	**531.1**	**-219.5**	**+311.6**

GDCI = GDCI Proctor Valley L.P.; CDFW = California Department of Fish and Wildlife; MSCP = Multiple Species Conservation Program

The land exchange parcels currently owned by CDFW that will be transferred to GDCI contain only 7.5 acres of coastal sage scrub habitat (which includes disturbed areas of coastal sage scrub), while the land exchange parcels owned by GDCI which will be transferred to the CDFW contain 391 acres of coastal sage scrub (including disturbed).

Once these parcels are exchanged, the CDFW will realize a net gain of 383.5 acres of MSCP Tier II coastal sage scrub.[5] In addition to the increase in coastal sage scrub, CDFW will realize a net increase of 22.5 acres of grassland, and approximately 0.6 acres of wetland habitats including 0.4 acres of open water,[6] 0.1 acres of cismontane alkali marsh and 0.1 acres of southern willow scrub. The net increase of these vegetation communities assists in the creation of a more diverse MSCP Preserve. While the land exchange will result in a net reduction of chamise chaparral and eucalyptus woodland within CDFW -owned property, the loss of these less sensitive (MSCP Tiers III and IV) vegetation communities is off-set by the much larger gain of the coastal sage scrub (Tier II) habitat, which is considered more sensitive by the County, CDFW, and the U.S. Fish and Wildlife Service, and supports more special-status species (County of San Diego 1997). Thus, the proposed land exchange will enhance the biological value of the MSCP Preserve through the acquisition of a vegetation community that supports both live-in habitat and foraging habitat for sensitive species, such as coastal California gnatcatcher, golden eagle, and potentially Quino checkerspot butterfly.

In summary, the proposed land exchange will result in a net gain of 311.6 acres of habitat to the MSCP Preserve. Approximately 219.5 acres of CDFW-owned land exchange Parcels A, B, C, D, E, and PVR North contain 7.5 acres, or 3%, of MSCP Tier II habitat and 199.9 acres or 91% of MSCP Tier III habitat. Of the 531.1 acres of the GDCI-owned land exchange Parcels PV1, PV3, R-14, R-15, and R-16 to be transferred to CDFW, 391 or 74% are MSCP Tier II habitat and 132.5 or 25% are MSCP Tier III habitat. Therefore, not only does the land exchange create an overall net increase to the MSCP Preserve of 311.6 acres, but that increase is composed predominantly of higher-tiered habitat. The land exchange provides benefits to the preserve system in terms of both quantity and quality of habitat.

3.2 Sensitive Resources

3.2.1 Sensitive Plant Species

The proposed land exchange would result in a significant increase in plant populations within the MSCP Preserve (Table 5), but would result in the loss of small populations of three non-covered species: San Diego marsh-elder (*Iva hayesiana*) (407 individuals), Munz's sage (*Salvia munzii*) (75 individuals), and ashy spike-moss (*Selaginella cinerascens*) (<0.01 acres). However, despite these losses, all three species will be adequately preserved after the land exchange is implemented. Specifically, the land exchange would place an additional 944 marsh-elder, 1,637 Munz's sage, and 3.83 acres of ashy spike-moss into the MSCP Preserve. In addition, the land exchange would result in the preservation of populations of 13 additional sensitive plant species, most of which are within the development footprint of the Approved Project[7] (Table 5).

[5] Within R-14, there are approximately 33 acres of mapped coastal sage scrub, which, likely due to wildfires in 2003 and 2007, are currently sparser than the surrounding coastal sage communities. Although this area is unlikely to support nesting coastal California gnatcatchers, there is the potential for this portion of the parcel to be used for foraging and dispersal.

[6] It should be noted that at the time of the 2014 surveys, the area mapped as open water did not contain water. However, previous aerials of the project site show this area as inundated, and therefore, it was mapped as open water.

[7] Portions of PV3, R-15, and R-16 were designated as Conserved Open Space under the Approved Plan and would not have been impacted by development.

Table 5. Special-Status Plant Species within the Land Exchange Parcels

Species	Regulatory Status: Federal/State/ County MSCP/CRPR*	GDCI Parcels Exchanged to CDFW **	CDFW Parcels Exchanged to GDCI	Overall Change to MSCP Preserve
Artemisia palmeri San Diego sagewort	None/None Not Covered/4.2	10	—	+10
Bloomeria clevelandii San Diego goldenstar	None/None ~~Not~~ Covered/1B.1~~4.2~~	1,312	—	+1,312
Brodiaea orcuttii Orcutt's brodiaea	None/None Covered/1B.1	83	—	+83
Dichondra occidentalis Western dichondra	~~None/None Covered/1B.1~~ None/None Not Covered/4.2	0.18 acres	—	+0.18 acres
Dudleya variegata Variegated dudleya	None/None Covered, NE/1B.2~~None/None Not Covered/4.2~~	35	—	+35
Ferocactus viridescens San Diego barrel cactus	None/None Covered/2B.1~~None/None Covered, NE/1B.2~~	36	—	+36
Harpagonella palmeri Palmer's grapplinghook	None/None Not Covered/4.2~~None/None Covered/2B.1~~	40	—	+40
Holocarpha virgata ssp. *elongata* Graceful tarplant	None/None Not Covered/4.2	20	—	+20
Iva hayesiana San Diego marsh-elder	None/None Not Covered/~~4.2~~2B.2	1,348	-404	+944
Juncus acutus ssp. *leopoldii* Southwestern spiny rush	None/None Not Covered/4.2~~None/None Not Covered/2B.2~~	43	—	+43
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None/None Not Covered/4.3~~2~~	112	—	+112
Pentachaeta aurea ssp. *aurea* Golden-rayed pentachaeta	None/None Not Covered/4.2~~3~~	12,477	—	+12,477
Salvia munzii Munz's sage	None/None Not Covered/~~4.2~~2B.2	2,323	-686	+1,637
Selaginella cinerascens Ashy spike-moss	None/None Not Covered/~~2B.2~~4.1	3.83 acres	<0.01 acres	+3.83 acres
Stipa diegoensis San Diego County needle grass	None/None Not Covered/~~4.1~~4.2	141	—	+141
Viguiera laciniata San Diego County viguiera	None/None Not Covered/4.2	9,953~~52~~	—	+9,95~~30~~

Notes: All numbers are individuals, except where noted as acres.
GDCI = GDCI Proctor Valley L.P.; CDFW = California Department of Fish and Wildlife; MSCP = Multiple Species Conservation Program
* See Table 2 for the Status Legend.
** These totals include R-14, which will contribute to the MSCP Preserve by granting CDFW a conservation easement, not through an "exchange."

3.2.2 Sensitive Wildlife Species

The land exchange would add to the MSCP Preserve significant blocks of coastal sage scrub and grasslands, and would result in a net increase of southern willow scrub and open water. The additional coastal sage scrub proposed for protection under the land exchange would additionally reduce fragmentation, creating larger habitat blocks and a more contiguous preserve configuration for species, such as coastal California gnatcatcher and Quino checkerspot butterfly.

Specific to Quino checkerspot butterfly, the land exchange parcels currently owned by GDCI comprise 528.1 acres of potential habitat for Quino checkerspot butterfly, including 2.17 acres of host plants. Under the land exchange, these 528.1 acres, including the 2.17 acres of host plant, would be exchanged to CDFW for inclusion in the MSCP Preserve (Table 3). There are approximately 219.5 acres included in the land exchange parcels owned by the CDFW to be transferred to GDCI, of which approximately 184.4 acres are potential habitat for Quino checkerspot butterfly and include 1.78 acres of host plants (Table 3). Accordingly, the land exchange would result in a net increase of 343.7 acres of potential habitat for Quino checkerspot butterfly, which includes 0.39 acres of host plants. When coupled with the designated Otay Ranch RMP Preserve areas owned by GDCI in Village 14 and Planning Area 16/19, the land exchange results in an overall preserve design that will contain a mosaic of open habitat communities, hill top areas, and cryptogrammic soils that are beneficial for Quino checkerspot butterfly, and provides greater continuity with other, larger blocks of open space as compared to the Approved Project. Several high-density host plant patches would also be added to the MSCP Preserve with the land exchange.

In addition to potential habitat for Quino checkerspot butterfly, the proposed land exchange parcels include reported observations of the species (see Section 2.3.2 and Figures 5a through 5d). There are anecdotally reported observations (i.e., the species was not observed during protocol surveys) from 2017 in R-14, R-16, and PV1, all of which will be placed into MSCP Preserve as a result of the proposed land exchange (Figures 5a, 5b, and 5c). There are a cluster of observations located just to the west of PV1 that will no longer have adjacent development. Elimination of development from PV1 and PV3 would expand the existing corridor for Quino checkerspot butterfly to move from conserved lands to the south to conserved lands to the north (see Section 3.2.3 for a full discussion of wildlife movement). Development within Parcel B would impact habitat associated with a cluster (three sightings) of 2019 observations, while development within Parcel C will impact habitat associated with one 2019 sighting (Figure 5c) and development in Parcel E will impact habitat associated with one 2019 sighting.

The land exchange would ultimately create a more unified, interconnected preserve configuration than the Approved Project, and would therefore, preserve larger contiguous blocks of high-quality habitat for the covered species in this area. Development areas will be concentrated within the central area of Village 14. With larger connected sections of native vegetation, species are afforded more protection with less direct contact to human development.

3.2.3 Wildlife Movement and Preserve Design

3.2.3.1 Existing Conditions

The principal geographic features surrounding the Approved Project and the land exchange parcels include Proctor Valley, San Miguel Mountain, and the Jamul Mountains. All of these areas are connected by corridors where many focal wildlife species occur (Figure 6, Wildlife Corridor and Habitat Linkages). The corridors provide both movement function and live-in habitat. The Baldwin Otay Ranch Wildlife Corridors Studies Report (Ogden 1992) identifies several local (L) and regional (R) wildlife corridors within and adjacent to the Otay Ranch Proctor Valley Parcel within which the Approved Project and the land exchange parcels are located (Figure 6).

The L4 corridor 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. Within the Approved Project and land exchange parcels, L4 traverses chamise chaparral, cismontane alkali marsh, coastal sage scrub vegetation types, non-native grassland, open water, unvegetated channel, developed land, and disturbed habitat. The L4 corridor is located adjacent to PV1, runs through the northern portion of Village 14 outside of the land exchange parcels, and then through Planning Area 16 (specifically R-14) where it connects to L3 to the south (Figure 6). Where L3 connects to L4 in the south, L3 continues east through open space and Bureau of Land Management land, ultimately connecting to R7 near the Jamul and San Ysidro Mountains.

The L3 corridor is composed of two sections: the southern section that runs mostly east/west outside of the Approved Project and land exchange parcels, and the northern section that runs mostly north/south from Planning Area 16 through land managed by the Bureau of Land Management. Within Planning Area 16, 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. The R1 corridor abuts both PV1 and PV3. 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 Village 14 and surrounding areas. Because Proctor Valley is situated adjacent to the Otay and Sweetwater Reservoirs, it could be used as a stopover or foraging area for species traveling between the reservoirs.

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). MSCP Plan Figure 2-2, Generalized Core and Biological Resources Area and Linkages, depicts portions of Village 14 (PV3, R-14, R-15, R-16, Parcel A, Parcel B) almost entirely within the Jamul Mountains BRCA, with a small portion within the Sweetwater Reservoir/San Miguel Mountain/Sweetwater River BRCA (PV1, Parcel E and PVR North and portions of Parcel A, Parcel B, Parcel C) (Figure 7, Biological Resources Core Area). Likewise, the southern portions of Planning Areas 16/19 are located within the Jamul Mountains BRCA (MSCP 1998).

3.2.3.2 Land Exchange MSCP Enhancement to Wildlife Movement

By including PV1, R-14, R-15, and R-16 in the MSCP Preserve, the land exchange further enhances the L4 corridor. The regional corridor, R1, will be further enhanced by the removal of development from PV3 and PV1, as the R1 corridor is proximate to both PV1 and PV3. Elimination of development in PV1 and PV3 expands the MSCP Preserve lands adjacent to the wildlife corridors approved in both the 1993 GDP/SRP and the Approved Project. Therefore, the L4 and R1 corridors will be expanded further than what was proposed in the GDP/SRP and will significantly exceed the MSCP 1,000-foot criteria for wildlife corridor design. With development limited primarily to portions of Village 14 and the small area of Planning Area 19, the surrounding blocks of MSCP Preserve will become more consolidated than what was contemplated in the County MSCP Subarea Plan. The CDFW owned DRA Parcels A, B, C and E were designated hardline development in the MSCP and are approved as Specific Plan land use designation in the County General Plan. Accordingly, development of the CDFW-owned land exchange Parcels A, B, C, and E is consistent with the preserve design contemplated in the County MSCP Subarea Plan and is consistent with the General Plan and the Otay Ranch GDP/SRP concept of clustering and consolidating development to minimize impacts to biological resources, steep slopes, and other environmental resources.

Inclusion of PV3 within the land exchange eliminates development of a large block of habitat, which would substantially enhance the existing approved R1 corridor configuration. Inclusion of PV3 in the land exchange widens the connectivity between occupied Quino checkerspot butterfly habitat to the south (in Otay Ranch Village 13) and to the north in the San Miguel Mountain area. Preservation of PV3 would maximize movement along a lower elevation route to upper Otay Reservoir as well as a broader connection to the more rugged ridgeline north of Lower Otay Reservoir. Likewise, inclusion of PV1 in the MSCP Preserve further enhances this unrestricted movement, while eliminating road crossings within L4 by removing an MSCP Plan approved road across corridor L4 between PV1 and the approved development footprint in the central portion of Village 14. The only development within R1 corridor would be Proctor Valley Road. Improvements to the road will include a wildlife crossing to facilitate movement of species such as mule deer and cougar under the road while other species, such as Quino checkerspot butterfly[8] and coastal California gnatcatcher will continue to fly over the road.

As a matter of preserve design, the land exchange, coupled with the Otay Ranch RMP Preserve areas in GDCI ownership, will result in a larger, more unified preserve/open space system with less edge effect from the surrounding development areas. The land exchange will reconfigure the MSCP Preserve such that it is adjacent to additional off-site open space and Preserve lands already owned by CDFW, the Bureau of Land Management, the federal government, and others. In addition, the land exchange will result in less direct connection with developed areas, providing for less human intrusion (e.g., lighting, trash, noise, and others) into the habitat and significantly reduces edge effect. The result is an enhanced MSCP Preserve design.

3.2.3.3 Land Exchange MSCP Enhancement to BRCA

As noted in Section 3.2.3.1, Village 14 and the southern portions of Planning Areas 16 are located primarily within the Jamul Mountains BRCA (Figure 7). By eliminating the development of PV3, R-14, R-15, and R-16, the land exchange will *further increase* the amount of MSCP Preserve and reduce the impacts within the Jamul Mountains BRCA by 130.9 acres (Table 6, bottom row). It is important to note that the development of Parcels A, B, C, E, and PVR North were approved in the MSCP Plan as hardline development and thus were already included in the BRCA impacts anticipated and approved by the MSCP Plan.[9] Consequently, the land within the Jamul Mountains BRCA that will be transferred from GDCI to CDFW represent a net gain to the hardline MSCP Preserve of 314.4 acres. Similarly, while development of CDFW Parcels A, B, and C would result in 9.9 acres of additional impacts to the Sweetwater Reservoir BRCA when compared to PV1 (the only land exchange parcel in the Sweetwater BRCA), the 28.8 acres of CDFW parcels that will be transferred to and developed by GDCI were already included in the BRCA impacts anticipated and approved by the MSCP Plan.[10] Overall, the land exchange would further reduce net impacts within the designed BRCAs and increase the MSCP Preserve by 121 acres (Table 6) within these two BRCAs. The land exchange would ensure the preservation of additional habitat that has the potential to support a high concentration of sensitive biological resources.

8 Per personal communication with Susan Wynn, USFWS, post land exchange and construction of the Proposed Project Amendment, Quino checkerspot butterfly will continue to fly over Proctor Valley Road.
9 See Table 3-2 of the MSCP Plan
10 See Table 3-2 of the MSCP Plan

Table 6. Biological Resource Core Areas Potential Impacts and Conservation

Land Exchange Parcel	Impacts within the Biological Resource Core Area (acres)[a]		
	Jamul Mountains	*Sweetwater Reservoir/San Miguel/Sweetwater River*	*Total Reduction in BRCA Impacts*
GDCI Parcels Exchanged to the CDFW			
PV1	–	18.9	18.9
PV3	134.5	–	134.5
R-14	47.6	–	47.6
R-15	49.9	–	49.9
R-16	82.5	–	82.5
Subtotal	*314.4*	*18.9*	*333.2*
CDFW Parcels Exchanged to GDCI			
Parcel A	128.6	1.5	130.1
Parcel B	13.2	15.7	25.9
Parcel C	7.1	14.6	21.8
Parcel E	29.4	–	29.4
PVR N	5.2	–	5.2
Subtotal	*183.5*	*28.8*	*212.3*
Net Reduction in Impacts (acres)	**-130.9**	**+9.9**	**-121.0**

Notes: BRCA = Biological Resource Core Area; GDCI = GDCI Proctor Valley L.P.; CDFW = California Department of Fish and Wildlife; MSCP = Multiple Species Conservation Program; PVR N = Proctor Valley Road North.

[a] Note that portions of R-14 and R-16 are not located within any BRCA.

3.3 Summary and Conclusions

The proposed land exchange will result in a net gain of 311.6 acres of habitat to the hardline MSCP Preserve. Since the CDFW owned land exchange parcels were not included in the 101,268 acres of hardline MSCP Preserve, all 531.1 acres owned by GDCI are an addition to the MSCP Preserve. Approximately 219.5 acres within the CDFW - owned land exchange Parcels A, B, C, D, E, and PVR North will be transferred to GDCI, of which 7.5 acres, or 3%, is MSCP Tier II habitat and 199.9 acres or 91% is MSCP Tier III habitat. Of the 531.1 acres of the GDCI-owned land exchange Parcels PV1, PV3, R-14, R-15, and R-16 to be transferred to CDFW, 391 or 74% are MSCP Tier II habitat and 132.5 or 25% are MSCP Tier III habitat. Not only does the land exchange create an overall net increase to the MSCP Preserve of 311.6 acres, but that increase is comprised predominantly of higher tiered habitat which is live-in and foraging habitat for numerous special-status wildlife species including coastal California gnatcatcher, potentially Quino checkerspot butterfly, golden eagle, and all of the species listed in Section 2.3.2. The land exchange will also result in the preservation of several populations of special-status plant species which would have otherwise been impacted by the Approved Project as described in the certified Final EIR. Therefore, the land exchange provides benefits to the MSCP Preserve in terms of both quantity and quality of habitat.

The specific habitat calculations demonstrate the CDFW will be acquiring more significant habitat value than it will be giving up. Further, the land exchange will improve the overall preserve design and wildlife movement, particularly in a regional context. The land exchange would result in the following benefits to wildlife movement and Preserve design:

- Reduction of approximately 13.2 miles of edge effect as compared to the Approved Project by consolidating development to central Proctor Valley.
- Protection of multiple habitats types, varying topography, and sensitive resources (including known populations of plant and wildlife species).
- The resulting plan from the land exchange would effectively return the Village Core in the Village 14 land plan originally approved by the County Board of Supervisors in 1993 after 5 years of deliberation, with the added benefit to the MSCP Preserve of eliminating development in PV1, PV3, portions of Village 14 north and all of GDCI's approved development in Planning Area 16.
- Elimination of 311.6 acres of proposed residential development from Village 14 and Planning Area 16, a 36% reduction in the approved Otay GDP/SRP development area, and permanent conservation of these areas, much of which is located adjacent to additional existing CDFW ownership land located in Planning Area 16.
- Consolidation of development onto lands currently owned by CDFW in Village 14, in areas that were originally designated for development in the Otay GDP/SRP and that were granted take authorization by the MSCP Plan (Parcels A, B, C, and E). These areas have existing Otay GDP/SRP and County General Plan approvals for development and are of lower overall biological value than the land that will be exchanged to the CDFW for inclusion in the MSCP Preserve.
- Increase in overall acreage of MSCP Preserve by 311.6 acres which enlarges a "core" biological area due to adjacency and connectivity of adjacent preserve lands and open space. This enlarged core is located between the Jamul Mountains to the southeast and San Miguel Mountain to the northwest. After the land exchange, the elimination of approved development will increase the size of the blocks of land connecting these two core areas while reducing the fragmentation of approved development.
- Preservation and improvement of the regional corridor (R1), which links the Jamul Mountains and San Miguel Mountain by eliminating development in PV1 and PV3. The additional preserve lands given as part of the land exchange will supplement the function of the R1 corridor by providing a wider and more northern route. This corridor allows for species to travel throughout the preserve while minimizing the potential for development obstructions or edge effects.
- Preservation of the local L4 corridor within the Proctor Valley drainage by removing development of PV1 and the associated access road. Enhances local L4 corridor by removing approved development within Planning Area 16.
- Reduction of net impacts to the Jamul BRCA by 130.9 acres with an overall reduction of impacts to BRCAs of 121 acres.
- Elimination of connector roads within the MSCP Preserve and Rancho Jamul Ecological Reserve by placing PV1, R-15 and R-16 into MSCP Preserve instead of hardline development.

Although the CDFW parcels proposed to be exchanged are not designated hardline MSCP Preserve in either the MSCP Plan or in the County MSCP Subarea Plan, Section 5.4.2 of the MSCP Plan, which discusses the "Like or Equivalent Exchange Concept" and provides six specific biological factors for "comparison of biological value," was reviewed in conjunction with the proposed land exchange. The findings set forth in this report conclude that the implementation of the proposed land exchange will have less effect on the environment with respect to the criteria set forth in MSCP Section 5.4.2 as follows:

- Effects on significantly and sufficiently conserved habitats (i.e., whether the exchange maintains or improves the conservation, configuration, or status of significantly or sufficiently conserved habitats).
- Effects on covered species (i.e., whether the exchange maintains or increases the conservation of covered species).
- Effects on habitat linkages (i.e., whether the exchange maintains or improves a habitat linkage or wildlife corridor).
- Effects on preserve configuration and management (i.e., whether the exchange results in similar or improved management efficiency and/or protection for biological resources).
- Effects on ecotones or other conditions affecting species diversity (i.e., whether the exchange maintains topographic and structural diversity and habitat interfaces of the preserve).
- Effects on species of concern not on the covered species list (i.e., whether the exchange does not significantly increase the likelihood that an uncovered species will meet the criteria for listing under either the federal or State Endangered Species Acts).

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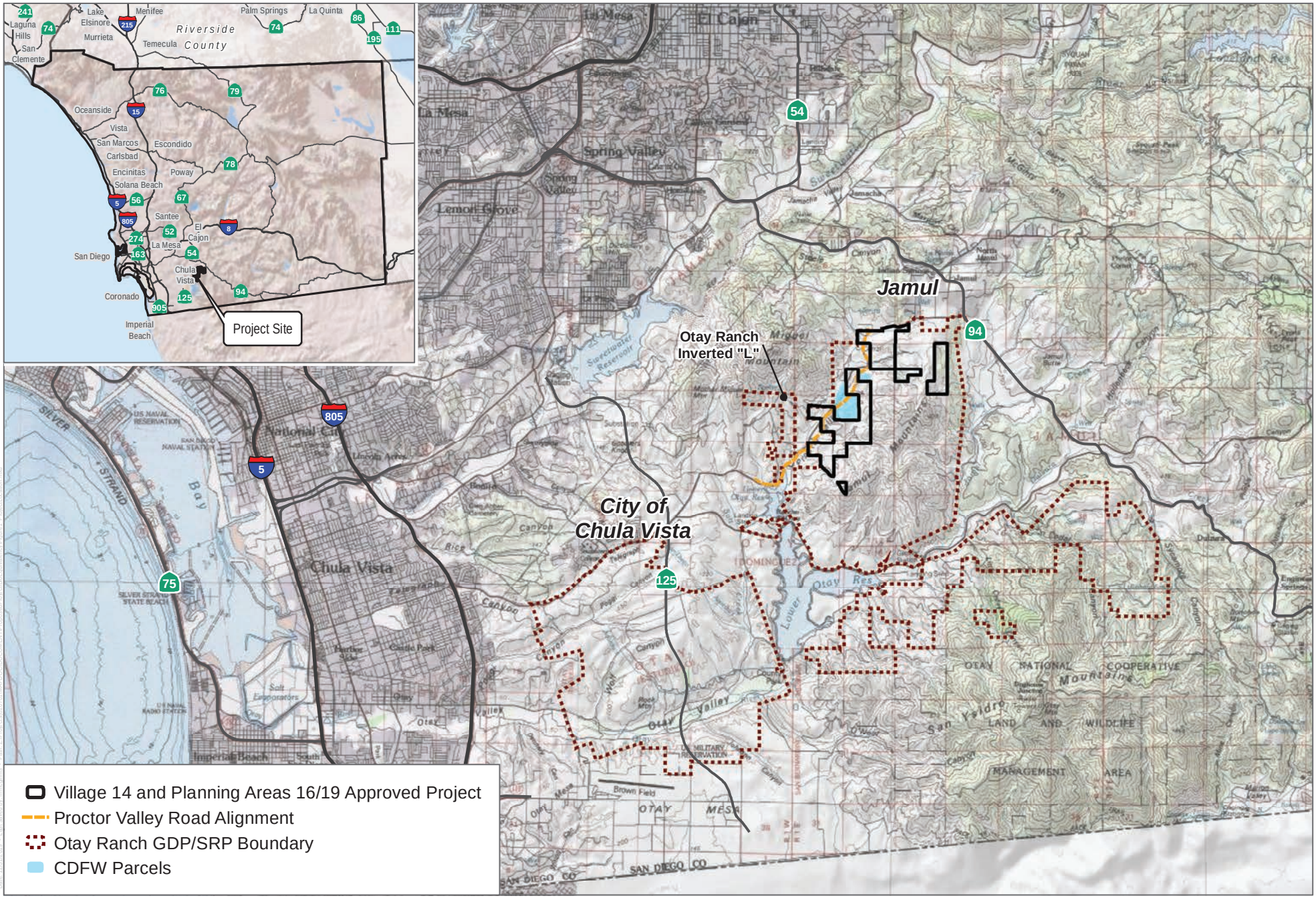
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SOURCE: USGS 7.5-minute Quadrangle; Hunsaker 2017; County of San Diego 1997

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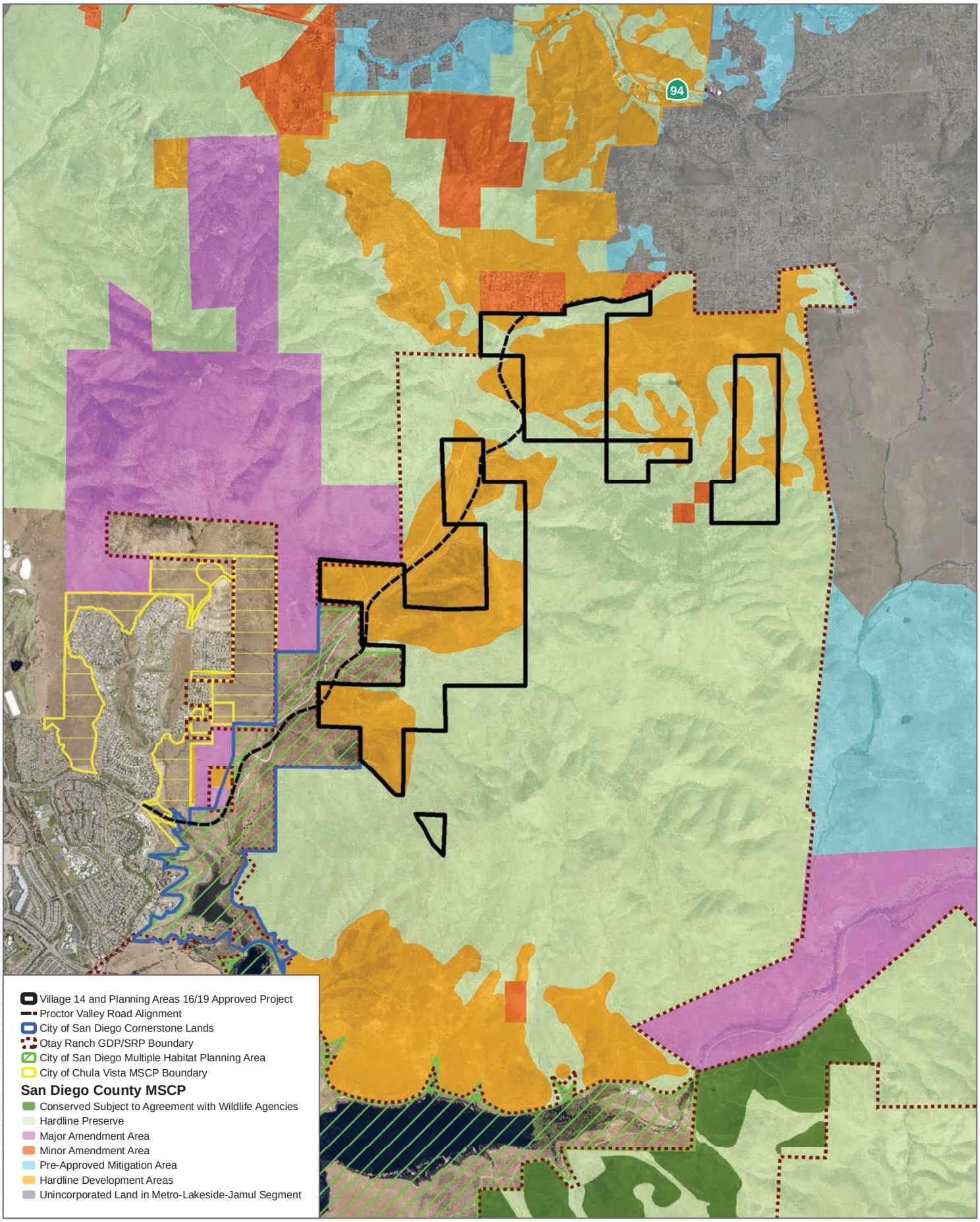
0 5,000 10,000 Feet

FIGURE 1

Project Location

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2019;
SANGIS 2003, 2010; City of Chula Vista 2003

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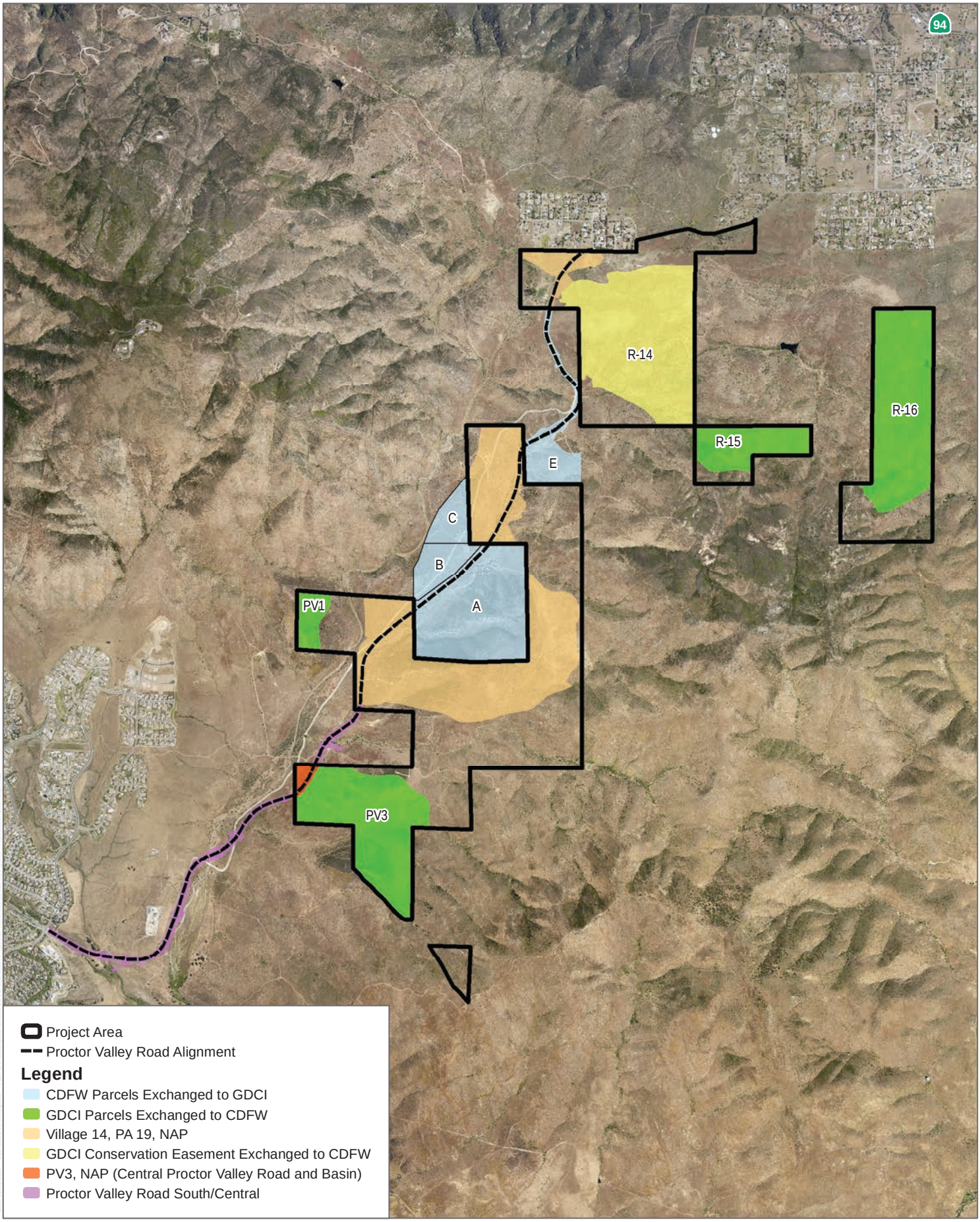
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FIGURE 2

Regional Planning Context

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2019

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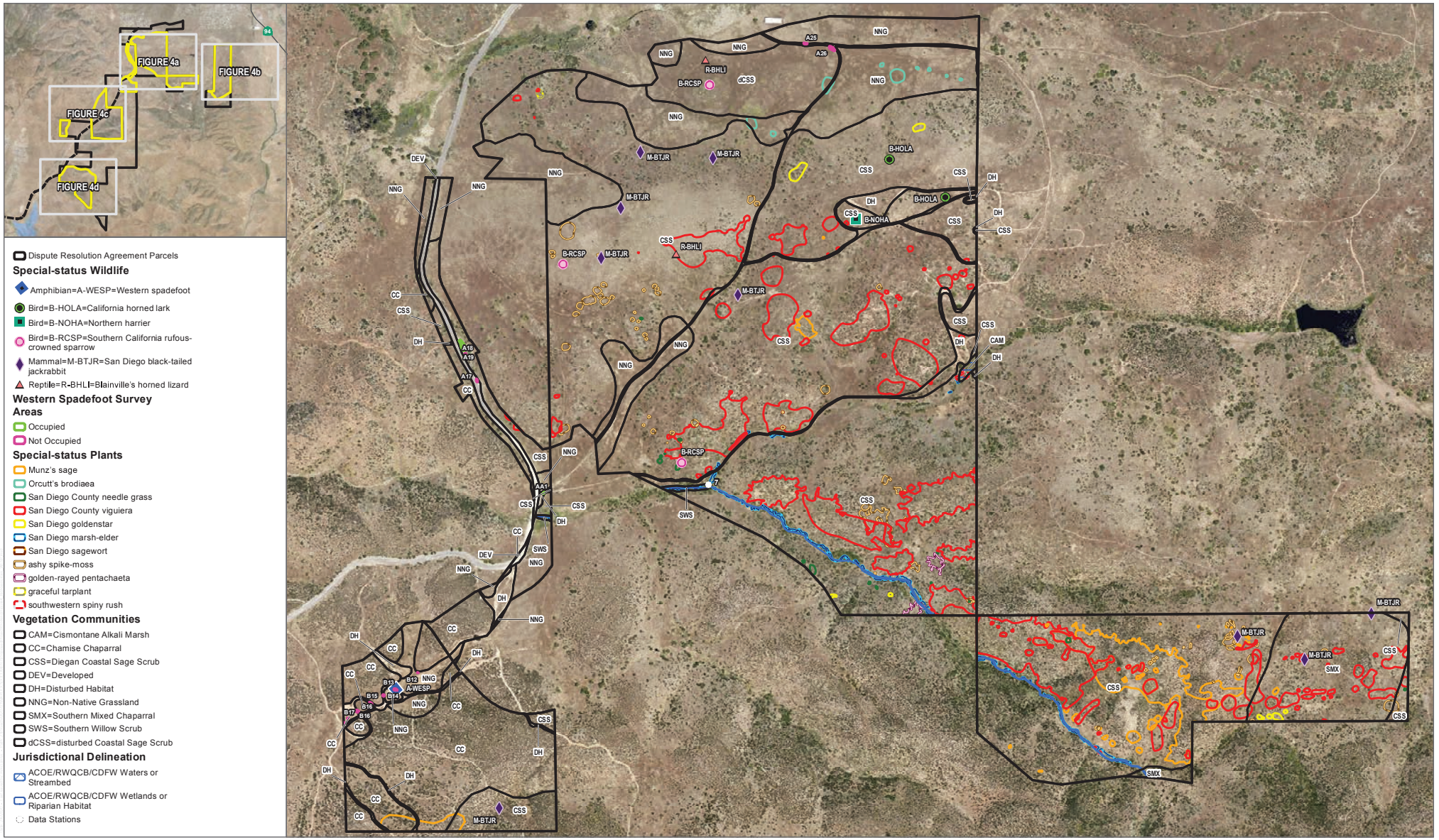
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FIGURE 3

Dispute Resolution Land Map

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2019

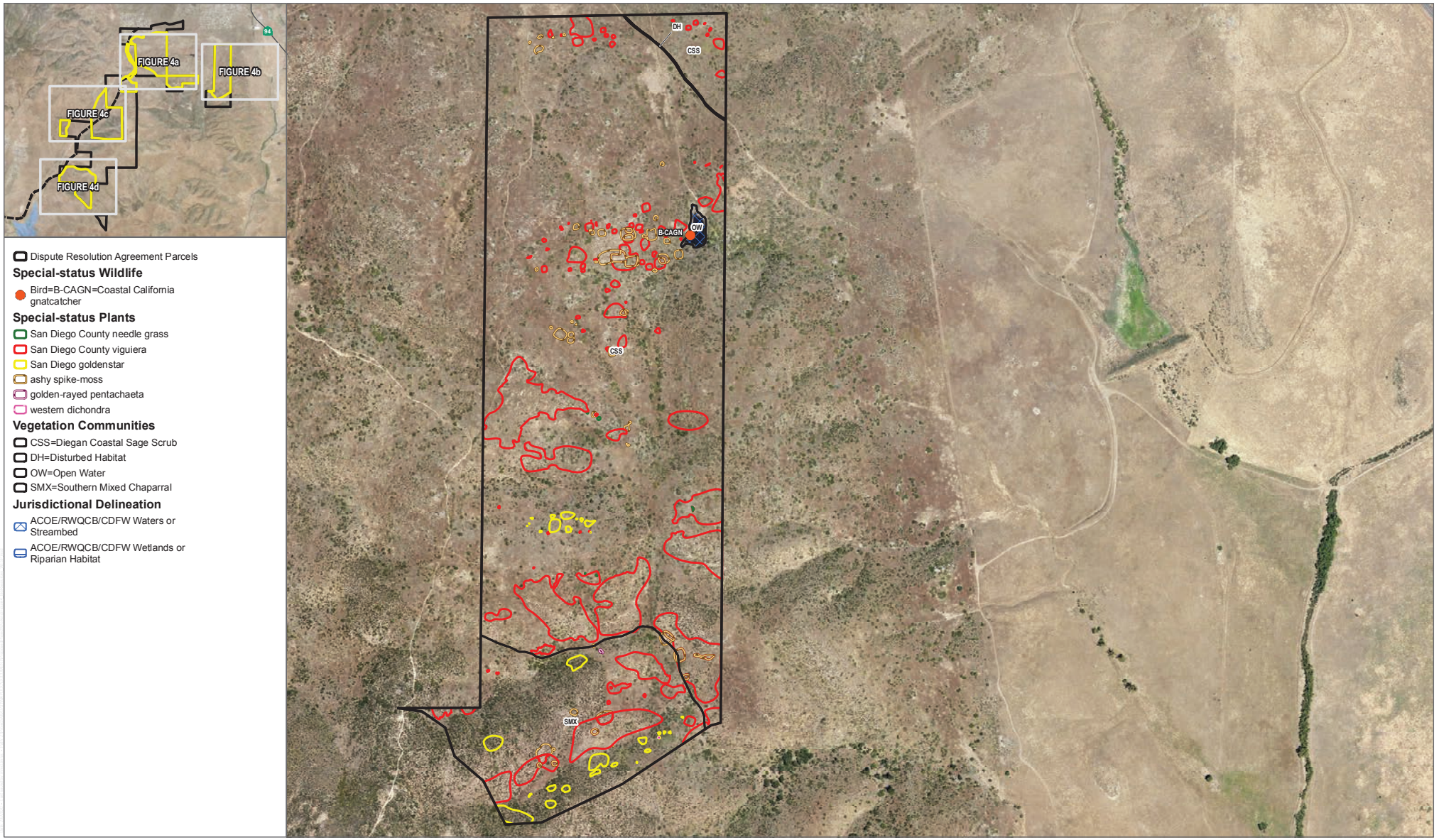
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FIGURE 4a

Biological Resources

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2019

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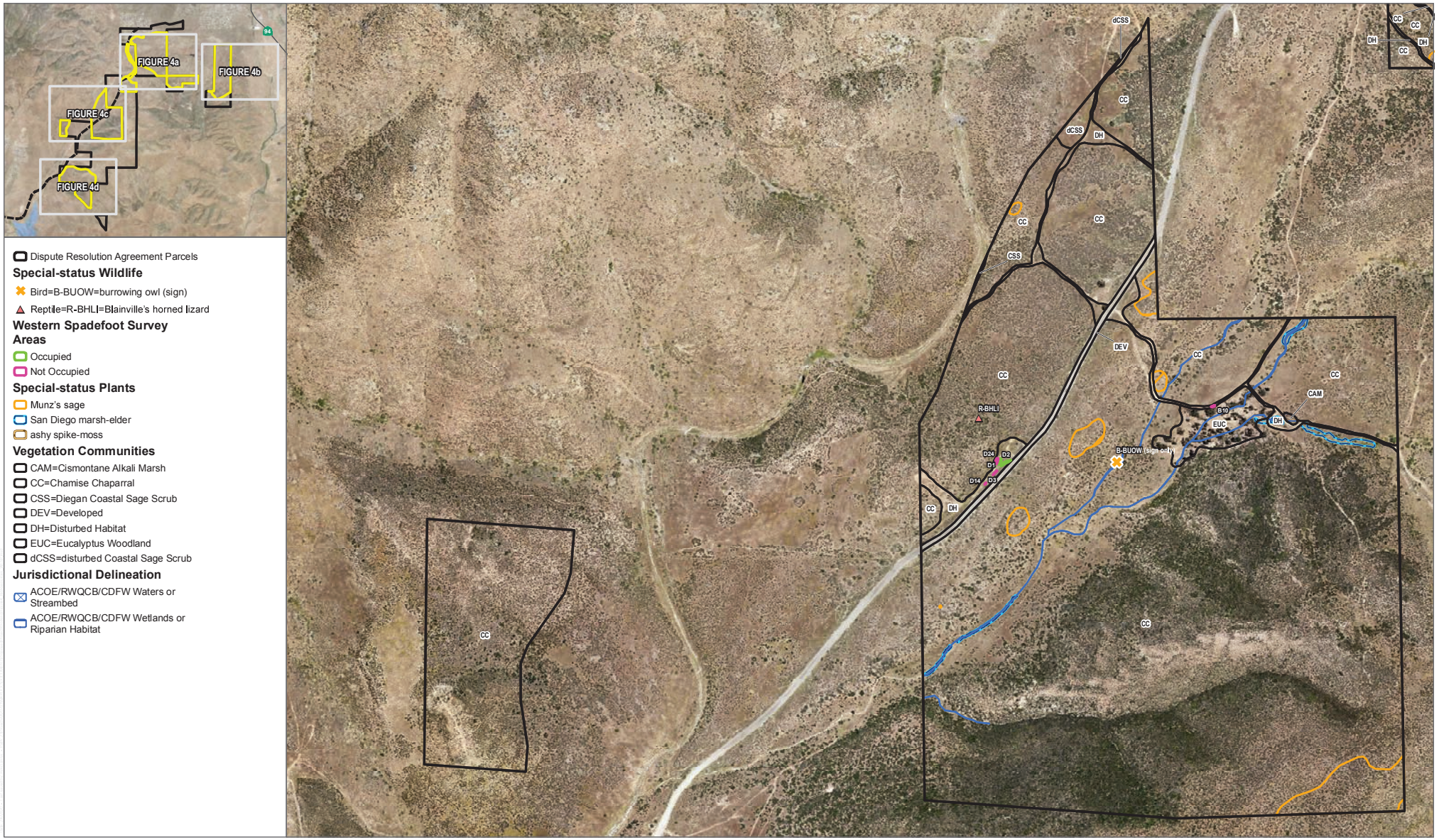
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FIGURE 4b

Biological Resources

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK

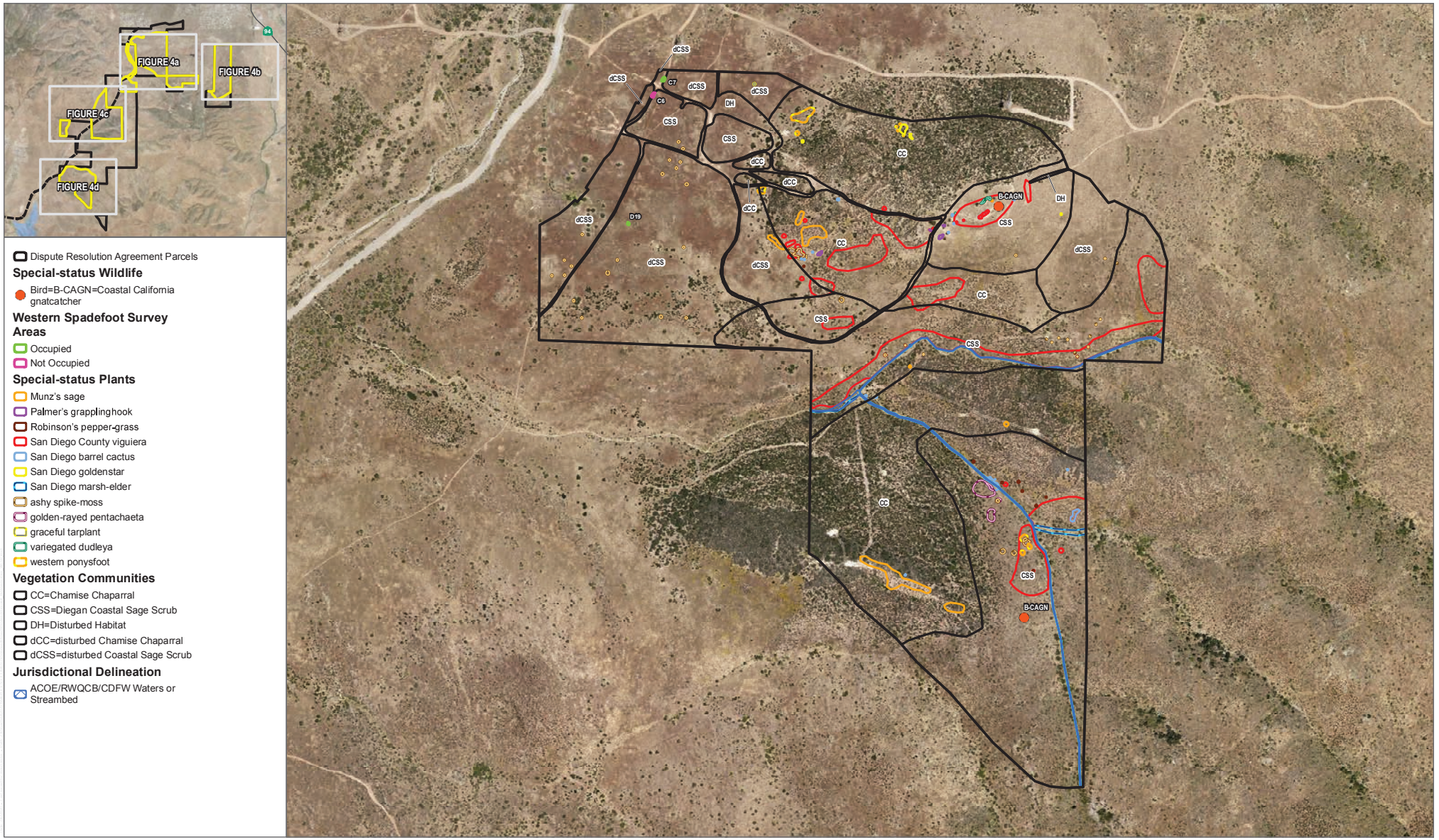
0 240 480 Feet

FIGURE 4c

Biological Resources

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK

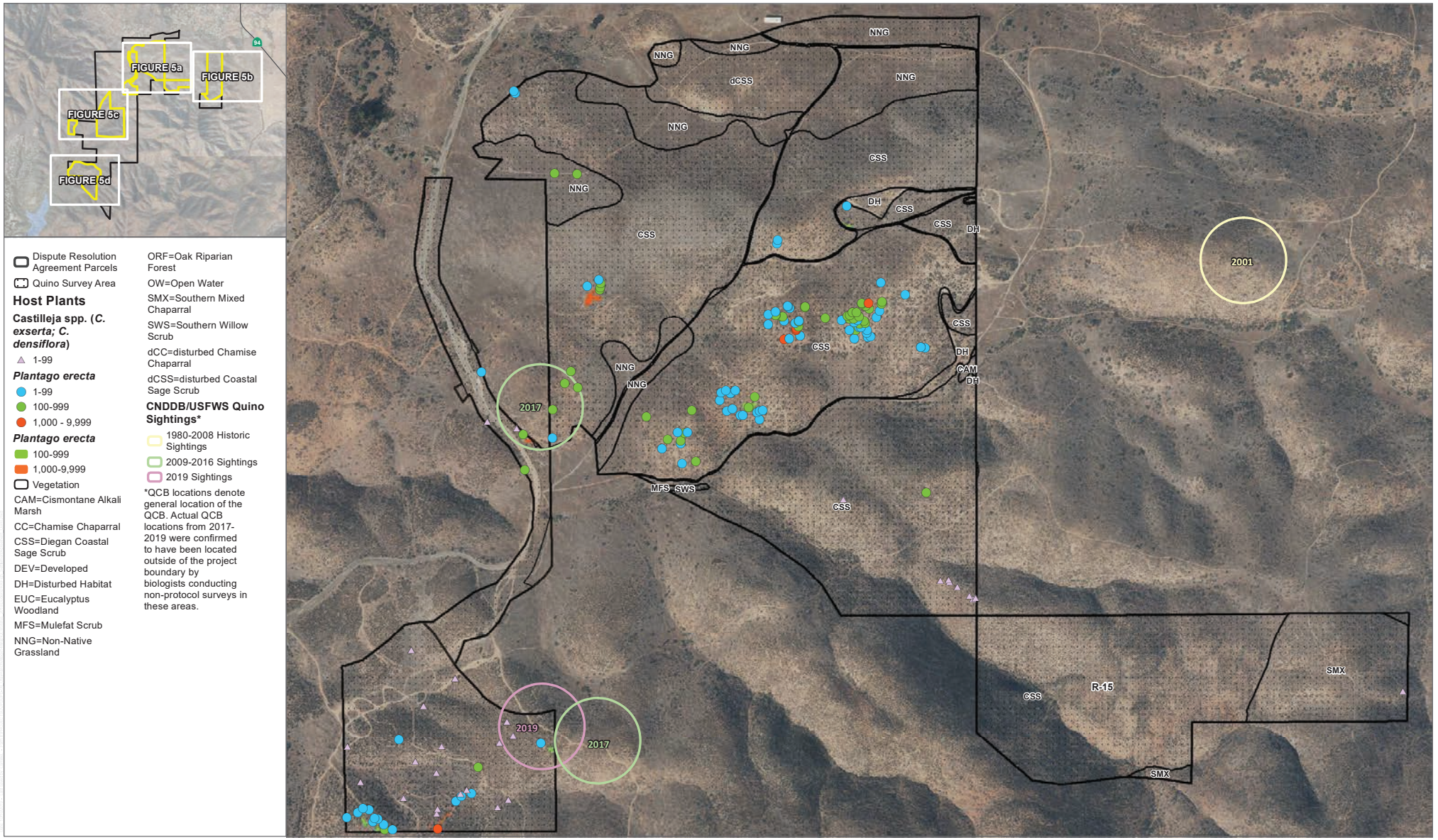
0 220 440 Feet

FIGURE 4d

Biological Resources

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2018

DUDEK

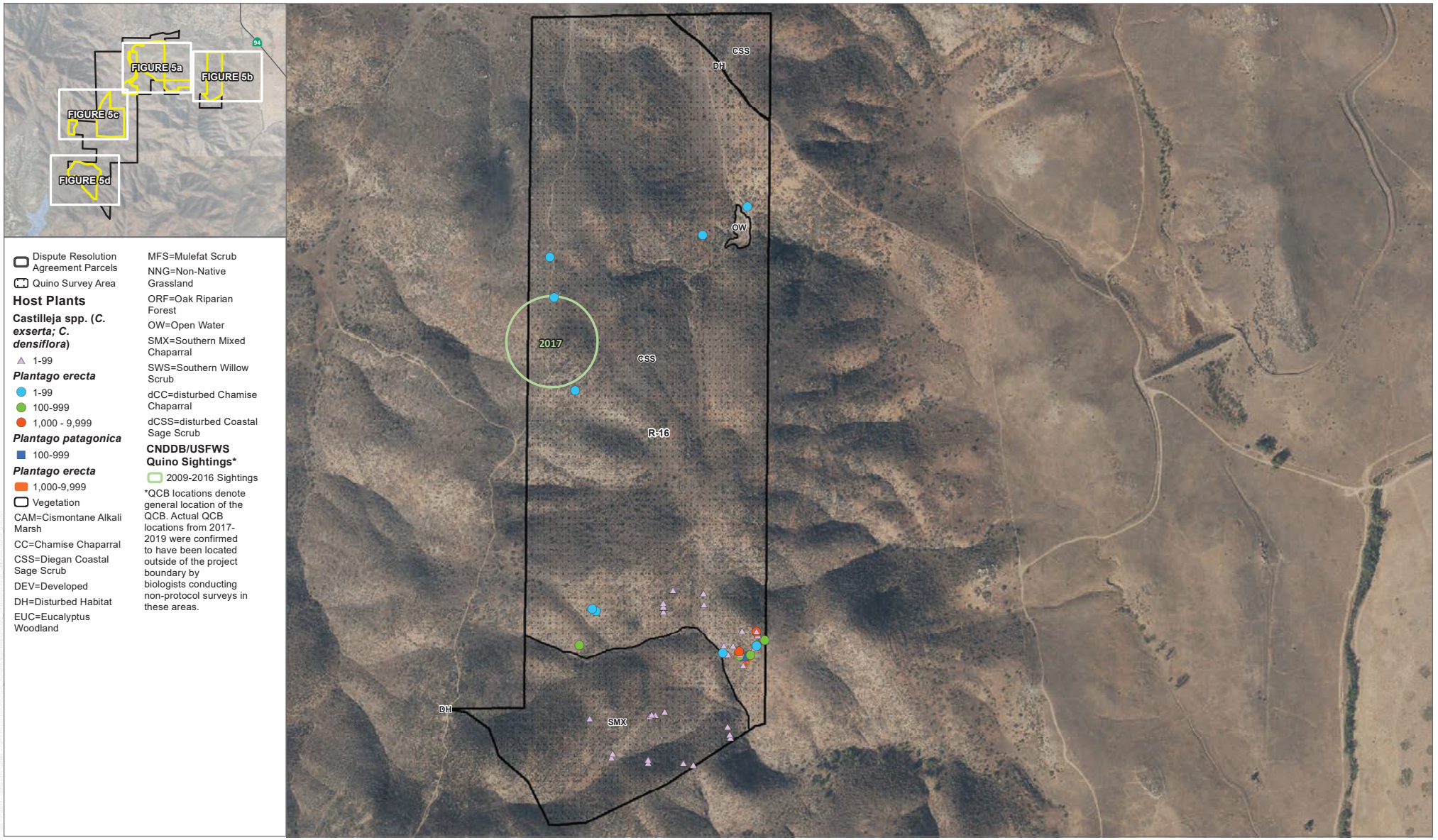
0 275 550 Feet

FIGURE 5a

2016 Host Plant Mapping and Quino Checkerspot Butterfly Sightings

Biological Equivalency Analysis for the Proposed Land Exchange Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2018

DUDEK

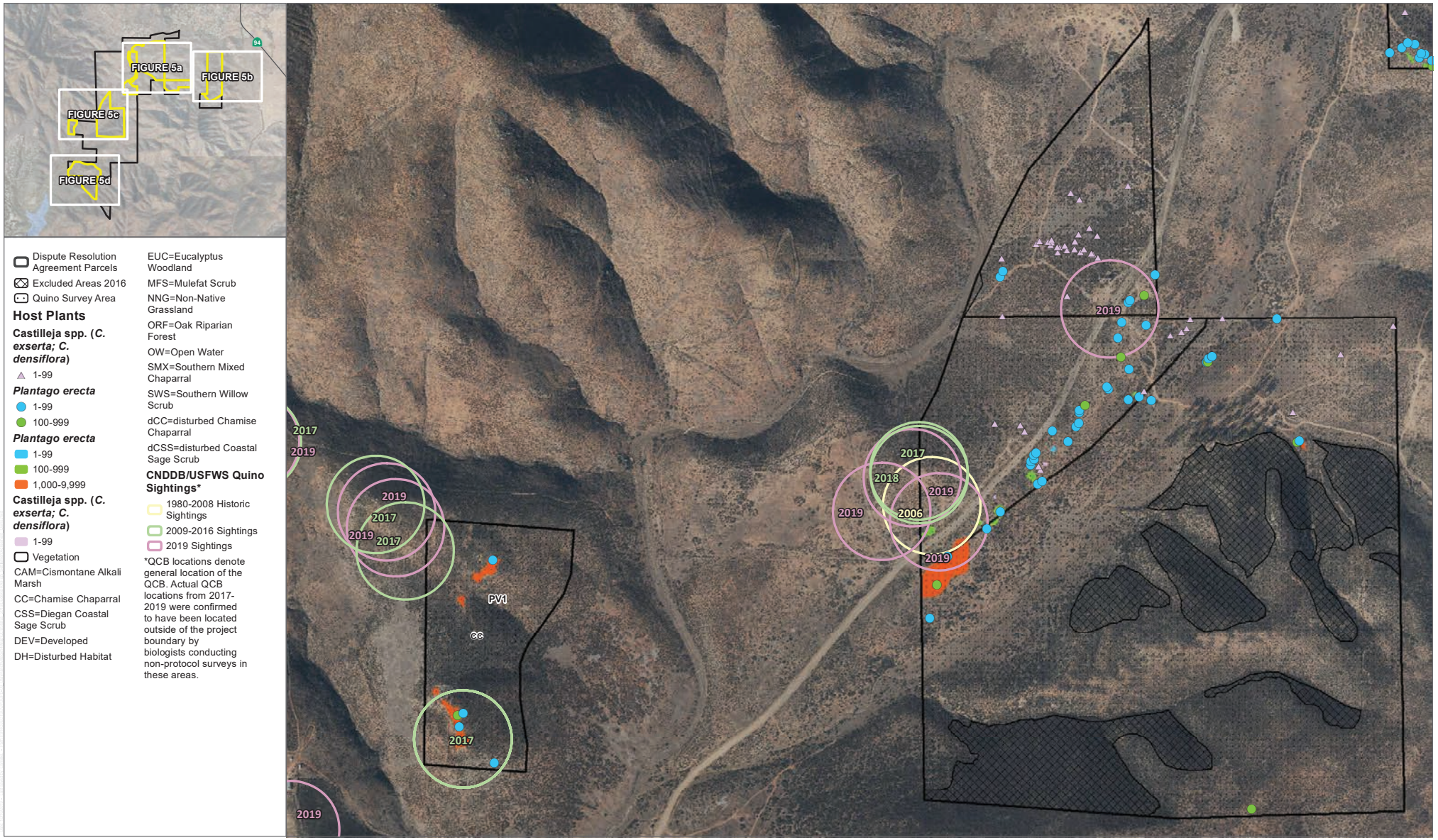
0 255 510 Feet

FIGURE 5b

2016 Host Plant Mapping and Quino Checkerspot Butterfly Sightings

Biological Equivalency Analysis for the Proposed Land Exchange Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2018

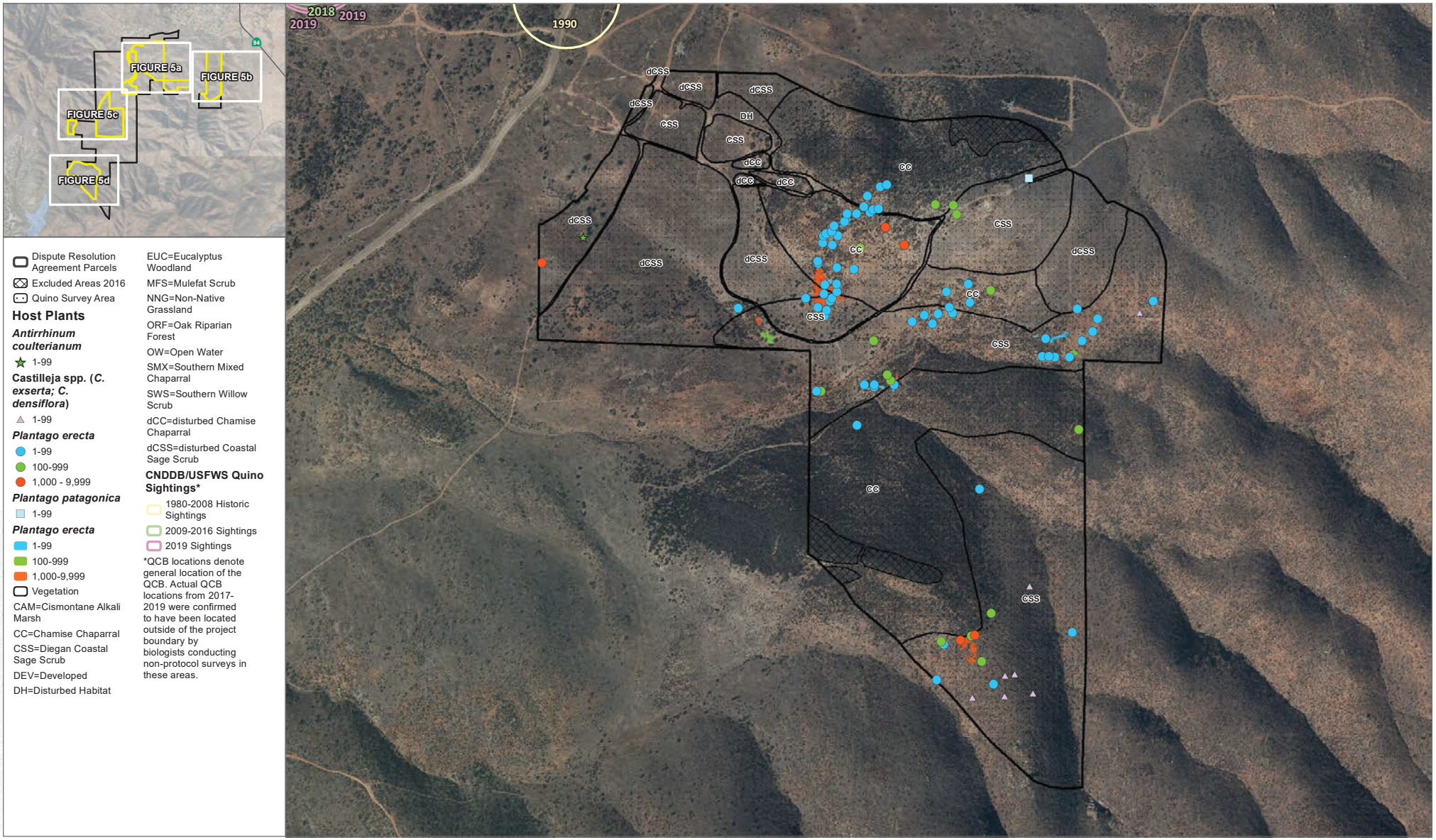
DUDEK

FIGURE 5c

2016 Host Plant Mapping and Quino Checkerspot Butterfly Sightings

Biological Equivalency Analysis for the Proposed Land Exchange Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: SANGIS 2017; Hunsaker 2018

DUDEK

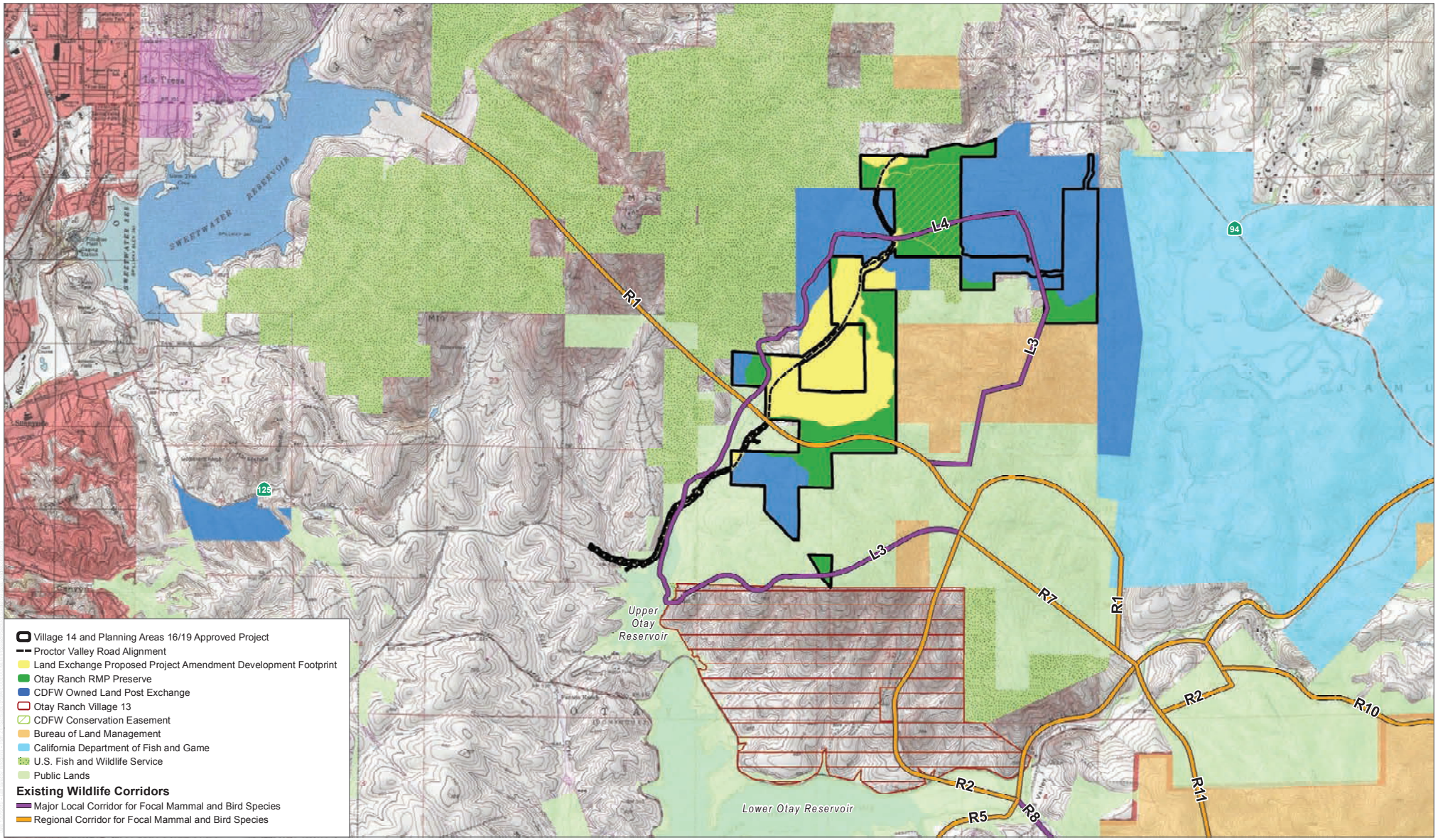
0 220 440 Feet

FIGURE 5d

2016 Host Plant Mapping and Quino Checkerspot Butterfly Sightings

Biological Equivalency Analysis for the Proposed Land Exchange Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: USGS 7.5-minute Topographic Map; Hunsaker 2019; SANGIS 2003; OGDEN 1992

DUDEK

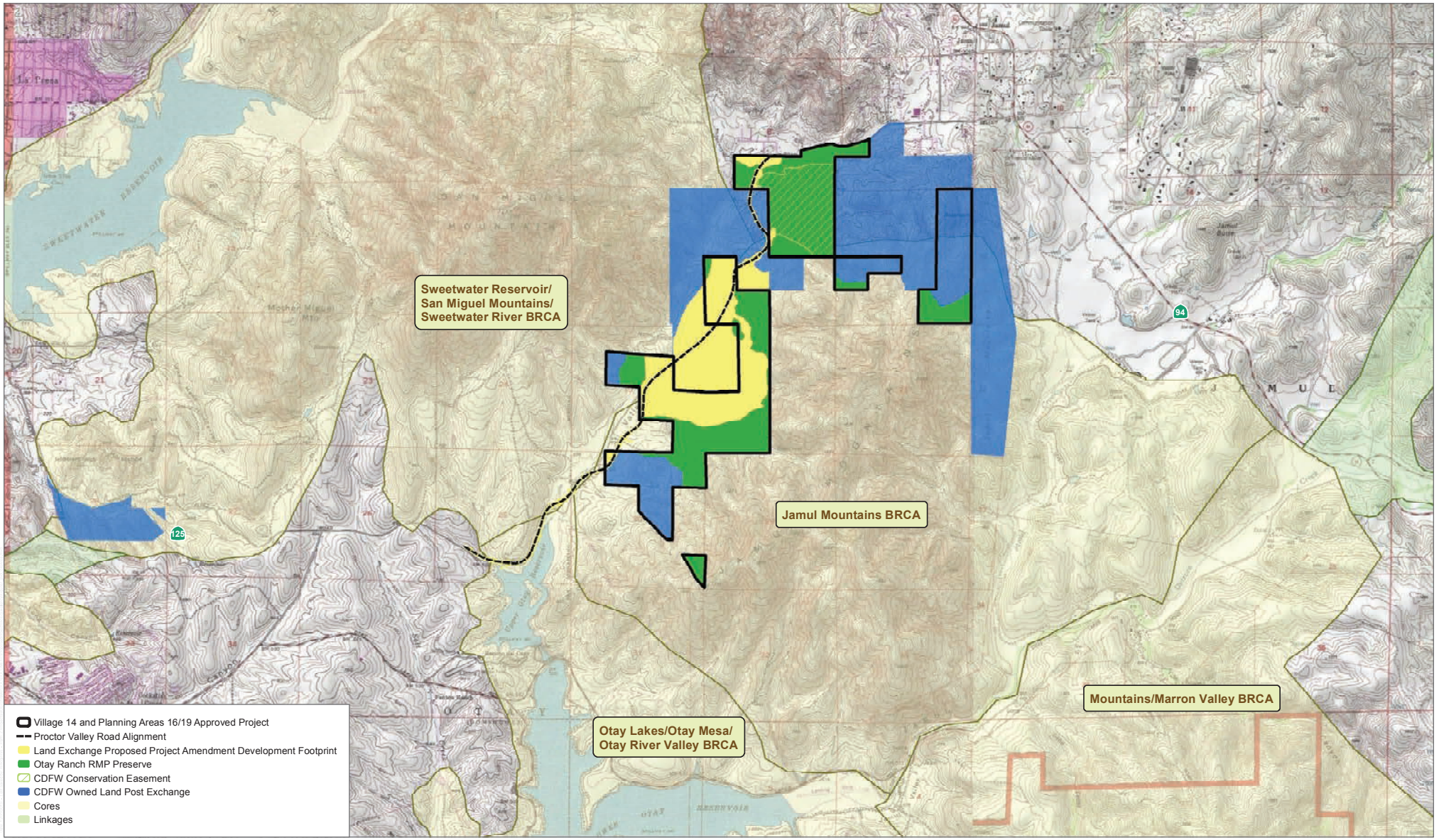
0 1,750 3,500 Feet

FIGURE 6

Wildlife Corridor and Habitat Linkages Post Exchange

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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SOURCE: USGS 7.5-minute Topographic Map; Hunsaker 2019; SANGIS 2016

DUDEK

0 1,750 3,500 Feet

FIGURE 7

Biological Resources Core Area Post Exchange

Biological Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Areas 16/19

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Appendix B

Summary of Quino Checkerspot Butterfly Habitat Assessments, Protocol Surveys, and Non-Protocol Sightings

Table A provides a detailed summary of the Quino checkerspot butterfly potential habitat and host plants which will either be impacted or conserved through each of the three projects. Note that Table A reflects the acreages presented in the Quino Checkerspot Butterfly Conservation Strategy and Framework Management Plan in Appendix C for the Proposed Project Amendment.

Summary of 2017, 2018, and 2019 Non-Protocol Sightings of Quino Checkerspot Butterfly

In addition to the Quino checkerspot butterfly (QCB) protocol surveys that HELIX conducted on behalf of the project applicant during 2015–2016, biologists from the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and non-agency biologists accompanying the USFWS (collectively, "biologists") made incidental observations of QCB individuals at or near the Development Footprints of the Approved Project and the EIR Land Exchange Alternative during the QCB "flight seasons" of 2017, 2018, and 2019.[7] All of these sightings were addressed during the Final EIR process for the Approved Project.

Because the Proposed Project Amendment is a composite of portions of the Approved Project and the EIR Land Exchange Alternative, the 2017–2019 QCB sightings discussed below also reflect all QCB sightings during that period within the Development Footprint of the Proposed Project Amendment. In other words, the Proposed Project Amendment's Development Footprint does not encompass any QCB sightings from 2017–2019 beyond those assigned to either the Approved Project Development Footprint or the EIR Land Exchange Alternative Development Footprint.

2017 Sightings

As disclosed in the Final EIR, in 2017, biologists sighted eleven QCB at various locations near, but not within, the Approved Project's Development Footprint: four QCB immediately to the west of Proctor Valley Road (Figure 8i); one QCB east of Proctor Valley Road (Figure 8i); two QCB at a location west of Village 14 (Figure 8h); one QCB at a location west of Planning Area 16 (Figure 8e); and three QCB at different locations west of PV1 (Figures 8h and 8n).

According to data in the Final EIR, the 2017 incidental surveys also included six QCB sightings within the Development Footprint for the EIR Land Exchange Alternative: four QCB at one location immediately west of Proctor Valley Road and two QCB at a location east of Village 14.

Of the 2017 sightings described above for both the Approved Project and the EIR Land Exchange Alternative, only four occurred within the Development Footprint of the Proposed Project Amendment. Thus, as pointed out above, there were no QCB sightings within the Development Footprint of the Proposed Project Amendment beyond those already identified as having occurred within the respective Development Footprints of the Approved Project and/or the EIR Land Exchange Alternative.

[7] Note that the QCB sightings from 2017–2019 were not made pursuant to protocol surveys, nor did the biologists prepare formal survey reports identifying survey routes and areas covered.

2018 Sightings

As disclosed in the Final EIR, in 2018, biologists made a single incidental observation of nine QCB immediately west of Proctor Valley Road (see Figure 8i). The sighting location is outside the Development Footprint of the Approved Project but within the Development Footprint of the EIR Land Exchange Alternative. This same sighting would be within the Development Footprint of the Proposed Project Amendment.

2019 Sightings

In 2019, biologists observed nine QCB in locations near those where they had sighted QCB previously in 2017 and 2018. Specifically, the biologists sighted four QCB west of Proctor Valley Road, just west of the central portion of Village 14 (Figure 8i); two QCB west of Proctor Valley Road near the northwestern portion of Village 14 (Figure 8j); two QCB west of PV1 (Figure 8h); and one QCB south of Planning Area 16 (Figure 8e). As explained in memoranda submitted to the County of San Diego by the project's biologist (HELIX), each of these sightings occurred outside the Approved Project's Development Footprint, but within the Development Footprint of the EIR Land Exchange Alternative (see HELIX memoranda dated June 21, 2019, and June 24, 2019, submitted to the County of San Diego Development and Planning Services Department on behalf of the project applicant). These same sightings would fall within the Development Footprint of the Proposed Project Amendment as well.

For additional information on the 2017–2019 QCB sightings, please see Appendix A1, HELIX's memorandum dated June 20, 2019, re: 2019 QCB Data, and Appendix ~~A2~~B2, HELIX's memorandum dated June 24, 2019, in response to the Endangered Habitats League's late QCB comments. Both of these memoranda are herein incorporated by reference and attached hereto as Appendices ~~A1~~ B1 and ~~A2~~B2.

Table A. Summary of Quino Checkerspot Butterfly Habitat Assessments and Protocol Survey Data

Description	Proposed Project Amendment		Approved Project		EIR Land Exchange Alternative	
	Development Footprint	*Conserved Footprint*	*Development Footprint*	*Conserved Footprint*	*Development Footprint*	*Conserved Footprint*
Total Acres (All Habitat Types)						
Village 14	513.2	259.7	432.7	254.1	601.7	403.9
PA 16/19	25.3	91.0	278.4	150.7	0	113.5
LDA	N/A	N/A	12.6	82.7	N/A	N/A
Off sites	40.1	249.8	85.4	N/A	56.6	N/A
Conserved Open Space	0	24.5	0	72.4	N/A	N/A
Total[a]	**578.6**	**625.0**	**809.1**	**559.9**	**658.2**	**517.4**
Predominant Habitat Acres (Percent of Project Area)						
Chamise Chaparral	355.9 (61%)	62.7 (10%)	249.6 (31%)	59.0 (11%)	431.6 (66%)	147.3 (28%)
Diegan Coastal Sage Scrub	132.8 (23%)	430.7 (69%)	432.6 (53%)	371.2 (66%)	142.7 (22%)	334.1 (65%)
Non-native Grassland	56.9 (10%)	56.4 (9%)	82.5 (10%)	29.7 (5%)	51.8 (8%)	23.2 (4%)
Southern Mixed Chaparral	3.2 (<1%)	56.1 (9%)	15.9 (2%)	85.0 (15%)	3.0 (<1%)	2.1 (<1%)
Other	29.8 (5%)	19.0 (3%)	28.4 (4%)	15.0 (3%)	29.0 (4%)	10.7 (2%)
Total[a]	**578.6**	**625.0**	**809.1**	**559.9**	**658.2**	**517.4**
Non-surveyed Areas[c] (Percent of Project Area)						
2016	46.2 (8%)	5.3 (<1%)	14.4 (2%)	6.2 (1%)	47.4 (7%)	7.3 (1%)
2015[b]	157.3 (27%)	68.6 (11%)	118.6 (15%)	72.4 (13%)	214.0 (33%)	91.6 (18%)
Acreage of Potential Quino Checkerspot Butterfly Habitat[d]						
2016	~~529.3~~527.1 (91%)	~~620.0~~613.7 (9~~8~~9%)	794.7 (98%)	553.7 (99%)	610.8 (93%)	510.1 (99%)
2015	~~455.0~~421.3 (7~~3~~9%)	~~17.2~~556.4 (~~2.8~~89%)	N/A[b]	N/A[b]	444.2 (67%)	425.8 (82%)

Table A. Summary of Quino Checkerspot Butterfly Habitat Assessments and Protocol Survey Data

Description	Proposed Project Amendment		Approved Project		EIR Land Exchange Alternative	
	Development Footprint	*Conserved Footprint*	*Development Footprint*	*Conserved Footprint*	*Development Footprint*	*Conserved Footprint*
Mapped Host Plant Acres (Cumulative Acres Based on HELIX 2016)						
Village 14	4.08	1.25	3.51	1.17	6.01	1.74
PA 16	0.08	0.01	0.74	0.04	0	0.05
PA 19	0	0	0	0	0	0
LDA	N/A	N/A	0.02	0.01	N/A	N/A
Conserved Open Space	N/A	0.81	N/A	1.08	N/A	N/A
Off sites	0.05	0.53	1.11	0	0.1	0
Total[a]	**4.21 acres scattered & patchy**	**2.60 acres scattered & patchy**	**5.38 acres scattered & patchy**	**2.30 acres scattered & patchy**	**6.11 acres scattered & patchy**	**2.12 scattered & patchy**

a. Totals may be off due to rounding.

b Planning Areas16/19 were not included in the 2015 assessment. Of the 415 total acres evaluated by HELIX in 2015 for Village 14, 122.2 were deemed unsuitable and thus not included in protocol surveys. A total acreage of potential Quino checkerspot butterfly habitat is not provided since Planning Area 16/19 were not evaluated in 2015.

c. Non-surveyed Areas are those areas where habitat was deemed unsuitable for Quino checkerspot butterfly (i.e., no physical or biological features for the species), and thus not included as a part of protocol survey.

d. Potential habitat is defined as the Total Acres minus the Non-surveyed Areas and the 5.3 acres of Proctor Valley Road within the City of Chula Vista where Quino checkerspot butterfly is a covered species. The 613.7 acres of potential Quino checkerspot butterfly habitat within the Conserved Footprint does not include an isolated patch of Preserve which the Wildlife Agencies do not count towards conservation. ~~Potential Habitat is the acreage that was surveyed for Quino checkerspot butterfly.~~

Appendix B1

HELIX: Response to USFWS 2019 QCB Survey Data for the Otay Ranch Proctor Valley Village 14 and Preserve Project

Memorandum

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BarryJ@helixepi.com
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HELIX Environmental Planning

Date: June 20, 2019

To: Sean Kilkenny, Dudek

Cc: David Hubbard, Gatzke Dillon & Ballance LLP
Liz Jackson and Rob Cameron, Jackson Pendo Development Company

From: Shelby Howard and Barry Jones

Subject: Response to USFWS 2019 QCB Survey Data for the Otay Ranch Proctor Valley Village 14 and Preserve Project

HELIX Proj. No.: JPD-08

Message:

In May 2019, the United States Fish and Wildlife Service (USFWS) released survey data for the 2019 Quino checkerspot butterfly (QCB) flight season, including survey data in the Otay Ranch area of San Diego County. The surveys reflect sightings reported to USFWS during the 2019 flight season and were reported by various biologists holding Recovery Plan permits issued by USFWS. As a condition of those permits, the biologists are required to report any QCB sightings to USFWS.

The data recorded QCB sightings in Proctor Valley, proximate to the site of the Otay Ranch Proctor Valley Village 14 and Preserve Project (Proposed Project). We reviewed the 2019 survey data to determine if the new QCB sightings affected the analysis or conclusions set forth in the Proposed Project's Environmental Impact Report (EIR). As explained below, we determined that the 2019 QCB occurrence data did not affect or require changes to the EIR or the impact conclusions drawn therein. The reasons underlying that determination are as follows:

First, none of the 2019 QCB sightings occurred within the Project site.

Second, the 2019 QCB sightings recorded near the Project site were recorded in locations where QCB have been observed during prior surveys incorporated into the EIR's analysis.

To demonstrate these points, we used the GPS coordinates provided by the biologists who conducted the 2019 surveys and plotted their QCB occurrence data on a map of Proctor Valley.

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The 2019 sightings were then given "alpha" identifiers and, along with sightings from prior years, superimposed on the Project site. A description of each Proctor Valley 2019 sighting is provided below:

- 2019 Sighting A: This sighting occurred in the northeast portion of Proctor Valley, south of the Project site. In addition, this sighting occurred in almost the exact same location as a prior sighting from 2017 and approximately 1,500 feet from another 2017 QCB sighting further to the north, which was part of the analysis in the EIR.
- 2019 Sighting B: This sighting occurred roughly in the center of Proctor Valley, outside the western boundary of the Project site.
- 2019 Sighting C: This sighting occurred at a location well to the northwest of the Project site and matches up with an earlier sighting from 2017, which was addressed in the EIR.
- 2019 Sightings D, E, and F: These three sightings form a cluster near the center of the Proctor Valley map. The sightings, while near the Project site and Proctor Valley Road, coincide with earlier sightings from 2006 and 2017, and thus have already been accounted for in the EIR.
- 2019 Sightings G and H: These two sightings occurred just off the Project site near the northwest corner of the parcel known as PV1. Both sightings, however, coincide with prior QCB sightings from 2017, which were accounted for in the EIR.
- 2019 Sighting I: This sighting occurred well to the east of the Project site.
- 2019 Sightings J, K, L, M, N, O, P, Q, and R: These sightings occurred in an area well to the west of the Project site. Moreover, 8 of these 9 sightings correspond to or overlap earlier occurrences recorded in 2001 and 2017, which were accounted for in the EIR.
- 2019 Sighting S: This sighting occurred well to the east of the Project's PV3 parcel.

The 2019 QCB sightings do not change the QCB analysis or conclusions in the EIR. The 2019 QCB survey data closely match 2017 and other previous QCB sightings, which were analyzed in the EIR. For this reason, we have determined that the 2019 QCB survey data does not alter the analysis, conclusions, or mitigation measures set forth in the Project EIR.

Attachment: Proposed Project, QCB Sightings, and Movement Widths

Appendix B2

HELIX: Response to Shute, Mihaly & Weinberger LLP Comment Letter on the Otay Ranch Proctor Valley Village 14 and Preserve Project

Memorandum

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HELIX Environmental Planning

Date: June 24, 2019

To: Sean Kilkenny, Dudek

Cc: David Hubbard, Gatzke Dillon & Ballance LLP
Liz Jackson and Rob Cameron, Jackson Pendo Development Company

From: Shelby Howard and Barry Jones

Subject: Response to Shute, Mihaly & Weinberger LLP Comment Letter on the Otay Ranch Proctor Valley Village 14 and Preserve Project

HELIX Proj. No.: JPD-08

Message:

The Shute, Mihaly & Weinberger LLP comment letter (comment letter) dated June 19, 2019 for the Otay Ranch Village 14 and Planning Areas 16/19 Project (Proposed Project) provided 3 comments related to the Quino checkerspot butterfly (QCB) analysis provided in the Proposed Project's Draft Environmental Impact Report (EIR). We reviewed the QCB comments provided in the comment letter and determined that there is not any new information related to QCB that would alter the analysis, conclusions, or mitigation measures set forth in the Proposed Project EIR. Below is our response to each of the 3 main QCB comments provided in the comment letter:

The EIR Presents a Fundamentally Flawed Description of the Project's Environmental Setting. The comment letter suggests that the 2016 QCB surveys were conducted in a drought year, adult QCB are essentially unobservable in drought years, and that the EIR dismisses 2017 sightings as "incidental", irrelevant, and excluded from the EIR impact analysis.

Below average rainfall occurred in 2015, which is one of the reasons why QCB surveys were repeated in 2016 for the Proposed Project. As noted in the EIR and in the Responses to Comments on the EIR, the 2015-2016 rainfall season produced an above average QCB host plant expression and QCB adults were documented in the vicinity of the Proposed Project site during the 2016 survey period. The 2015-2016 rainfall season was close to an average rainfall year and consistent rainfall amounts occurred prior to and during the 2016 survey effort. The EIR correctly noted that no QCB were observed during the 2016 QCB surveys on the Proposed Project and that QCB were incidentally sighted by others adjacent to the Proposed Project in

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2017. As noted on page 2.4-47 of the EIR, the 2017 QCB sightings were described as incidental because they were made during a general reconnaissance of the area and not pursuant to a focused or protocol survey. The 2017 QCB sightings were not documented on the Project site, but were taken into consideration in the EIR analysis and in the Responses to Comments on the Draft EIR. Please refer to the HELIX memo[1] provided on June 20, 2019 detailing the responses on the 2019 survey data. The EIR and Responses to Comments on the Draft EIR drew specific references to the Proctor Valley region being included in the metapopulation structure for the species and that it provides potential habitat for QCB to potentially expand into. Finally, the mitigation for the proposed project requires compensatory mitigation for impacts to potential QCB habitat.

The EIR Fails to Comply with the County's Previously Adopted Mitigation for QCB. The comment letter indicates that the Dudek report on PEIR mitigation "program compliance" lacks any analysis to support its conclusions and that the USFWS has adopted the only established methods for determining QCB occupancy of a site. The basis for the Dudek conclusion in the program compliance report that QCB do not occupy the Proposed Project site is based on the 2016 protocol QCB surveys conducted for the site, as described in detail in the EIR. The comment letter suggests there is only one method for establishing QCB occupied habitat, which is to apply a 1-km radius from previous QCB sightings. It is acknowledged that using a 1-km radius from previous QCB sightings is a method for identifying potential occupancy, but is not to our knowledge the standard for determining occupied habitat by the County for project review under CEQA.

The comment letter suggests that the Proposed Project clearly violates the PEIR's mitigation measures. However, as the comment letter cites, the PEIR mitigation measure related to QCB habitat preservation includes a key component ("or approved HCP/MSCP standards"), which was not elaborated on in the comment letter. The intent of the PEIR mitigation measure for 100 percent preservation of occupied QCB habitat builds in the flexibility for incorporating measures from consultation with USFWS. The Dudek program compliance report correctly notes that the project applicant will consult with the USFWS to determine if incidental take authorization will be required and will comply with all terms and conditions imposed by USFWS. Complying with all terms and conditions to be imposed by USFWS ensures consistency with the PEIR's mitigation measures.

The EIR's Assertion that Proctor Valley Is Not a Core Area for QCB Recovery Is Wrong. The comment letter indicates that "in 2009, USFWS finalized an Update to the Quino Recovery Plan" and that the EIR fails to analyze the Project's inconsistency with this purported update to the QCB Recovery Plan. However, the statement that USFWS finalized an update to the QCB

[1] HELIX Environmental Planning, Inc. (HELIX). 2019. Response to USFWS 2019 QCB Survey Data for the Otay Ranch Proctor Valley Village 14 and Preserve Project. Memo from Shelby Howard and Barry Jones (HELIX) to Sean Kilkenny (Dudek). June 20.

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Recovery Plan is not accurate. In 2009, the USFWS completed a 5-Year Review for the QCB (5-Year Review), which is required by section 4(c)(2) of the federal Endangered Species Act. The 5-Year Review includes a number of recommendations for actions over the next 5 years, including considering an update to the QCB Recovery Plan. However, the comment letter is incorrect to suggest that in 2009, the USFWS provided an Update to the QCB Recovery Plan. There was not a Recovery Plan update included with the 5-Year Review and the QCB Recovery Plan has not been updated at this time. The EIR correctly analyzed the Proposed Project's consistency with the 2003 QCB Recovery Plan.

The comment letter also discussed the Proposed Project impacts on landscape connectivity within QCB recovery units, which would create a significant impact. The EIR does describe the project as occurring within a larger metapopulation dynamic within southern San Diego County, analyzed connectivity with areas identified as core areas in the 2003 Recovery Plan, and determined that the Proposed Project would not have a significant impact because the preserve design associated with the Proposed Project would maintain adequate connectivity for wildlife species, including QCB. Furthermore, the EIR concluded that the Proposed Project would preserve contiguous habitat with other larger blocks of open space, would provide hilltopping, nectaring resources, and host plant patches for QCB, and would maintain metapopulation dynamics for the QCB.

In conclusion, there is not any new information related to QCB provided in the comment letter that would change the QCB analysis or conclusions in the EIR. Please let us know if you have any questions.

Appendix C

Quino Checkerspot Butterfly Conservation Strategy

QUINO CHECKERSPOT BUTTERFLY CONSERVATION STRATEGY FOR OTAY RANCH VILLAGE 14 AND PLANNING AREAS 16/19

Prepared by
HELIX and DUDEK for
JPDC and GDCI
(March 3, 2020)

The following Conservation Strategy for the Quino checkerspot butterfly (QCB) addresses potential impacts to QCB and its potential habitat to the extent such impacts may result from development of Otay Ranch Village 14 and Planning Areas 16/19, located in the unincorporated area of San Diego County.

ASSUMPTIONS

1. On June 26, 2019, the project applicant (GDCI Proctor Valley LP or "Applicant") secured County approval for the Otay Ranch Village 14 and Planning Area 16/19 Project (the "Approved Project"), which contemplates development on 809.1 acres, including 794.7 acres of potential[1] QCB habitat. This same 809.1-acre Development Footprint includes 502.4 acres of federally designated critical habitat for the species. Through a combination of conveyance of land to the Otay Ranch RMP Preserve ("Preserve") and biological conservation easements, the Approved Project would preserve approximately 827.3 acres of QCB potential habitat.
2. The Approved Project Development Footprint includes areas within Village 14 known as PV1 and PV3, which, are considered by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) (collectively termed Wildlife Agencies) to be biologically important to the QCB[2].
3. The Applicant and the County have agreed to process a revised project design through a process described in the Dispute Resolution Agreement (DRA), dated June 26, 2019, and is referred to herein as the "Proposed Project Amendment". The DRA was negotiated, prepared and executed jointly by the Applicant, the Wildlife Agencies, and the County.
4. The Proposed Project Amendment is contingent on successful completion of three processes: (1) County approval of a revised Tentative Map; (2) County approval, and

[1] The term "Potential Habitat" means all areas meeting the definition of habitat areas requiring surveys under the 2016 survey protocol developed in coordination with the USFWS, County of San Diego and Building Industry Association. This 794.7 acres includes 5.3 acres of impacts within the City of Chula Vista.
[2] See comment letter from CDFW, dated April 16, 2018, describing importance of PV1 and PV3 to QCB migration and conservation.

CDFW and USFWS concurrence, of a County-initiated amendment to the County's MSCP Subarea Plan; and (3) approval by the California Wildlife Conservation Board (WCB), and USFWS consent to, the land exchange proposed in the DRA, through which the Applicant and the CDFW would exchange property and thereby allow for a more consolidated and biologically sensitive development.

5. Under the DRA, the Applicant retains the right to terminate any of the three processes described above and pursue the Approved Project.

6. The Proposed Project Amendment contemplates development on 578.6 acres, including 527.1 acres[3] of potential QCB habitat and 500.2 acres of QCB critical habitat. Through a combination of conservation mechanisms, the Proposed Project Amendment would permanently preserve 765.8 acres[4] of QCB potential habitat. The Proposed Project Amendment's contribution for the purpose of the USFWS QCB analysis[5] is the permanent preservation of approximately 613.7 acres of potential QCB habitat.

7. Some of the lands exchanged under the DRA provide (or may provide in the future) potential habitat for QCB. As such, those lands are subject to this QCB Conservation Strategy and are acknowledged in the 765.8 acre calculation, and will be considered in the Proposed Project Amendment's overall mitigation and land conservation obligations for purposes of QCB take authorization. In other words, all 765.8 acres are available for QCB restoration activities per this QCB Strategy.

8. No protocol-level surveys for QCB individuals are required under the QCB Management Plan or by this Conservation Strategy. Enough survey data exist to conclude that QCB individuals have used the Proposed Project Amendment project area in the past and may use it in the future, especially if the quality and functionality of the potential QCB habitat is protected, enhanced, and managed. Surveys are expensive and are not necessary to inform the management decisions associated with this Conservation Strategy. However, QCB monitoring is included as part of the Framework Management Strategy and will be conducted as part of the adaptive management component of the program. Additionally, surveys will be conducted every 5 years under the long-term management provided by the Otay Ranch Preserve Owner/Manager (POM). QCB sightings will be documented and shared with the POM, County, and Wildlife Agencies.

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[3] Impacts to potential habitat for Quino checkerspot butterfly include impacts to City of San Diego Cornerstone Lands, but exclude 5.3 acres of impacts associated with the improvement of Proctor Valley Road within the City of Chula Vista, as those impacts were already addressed in the City of Chula Vista's MSCP Subarea Plan as part of the Rolling Hills Ranch project. The amount of critical habitat reported does not include areas of habitat deemed unsuitable for QCB (i.e., no physical or biological features for the species), and thus not included as a part of protocol surveys.

[4] This 765.8 acres includes Otay Ranch RMP Preserve owned by the Applicant, Conserved Open Space, the R-14 Conservation Easement, as well as the excess transferred to CDFW via the land exchange. This 765.8 acres is not to be confused with the 1.188:1 RMP Conveyance Requirement, which is estimated at 556.6 acres.

[5] The USFWS calculates the conservation-to-impact ratio based on how much potential QCB habitat would be conserved *after* the land exchange proposed in the DRA occurs. Based on this approach, the Proposed Project Amendment, following the land exchange, would conserve 613.7 acres of potential QCB habitat, resulting in a conservation-to-impact ratio of **1.16 to 1**.

CURRENT QCB APPLICABLE MITIGATION MEASURES

In conjunction with the Approved Project, the County certified a Final Environmental Impact Report and adopted the following seven mitigation measures to reduce potential impacts to QCB. Each of these mitigation measures would apply equally to the Proposed Project Amendment if it were approved pursuant to the processes outlined in the DRA. The following is a summary of each of the seven mitigation measures described above for the Final Environmental Impact Report for the Approved Project (the full text of the mitigation measures is provided in the Final Environmental Impact Report). These same mitigation measures would also be applicable to the Proposed Project Amendment:

1. M-BI-1: Impacts will be minimized during construction through implementation of Best Management Practices (BMPs).
2. M-BI-3: The applicant shall convey land within the Otay Ranch RMP Preserve to the Otay Ranch Preserve Owner/Manager (POM) or its designee at 1.188 acres for each "developable acre" impacted, as defined by the Otay Ranch RMP. (Estimated at 556.6 acres for the Proposed Project Amendment[6]).
3. M-BI-4: The applicant shall record a biological open space easement for areas of Conserved Open Space, which allows for selective fire clearing by hand, and shall prepare a Resource Management Plan for those areas.
4. M-BI-5: The applicant shall install permanent fencing and signage between housing and open space.
5. M-BI-8: The applicant shall consult with the USFWS to determine if take authorization is required for impacts to potential QCB habitat.
6. M-BI-9: The applicant shall provide mitigation acreage at a ratio in excess of 1:1 (preservation of 1 acre for every 1 acres of impact) and shall adequately mitigate impacts to potential QCB habitat.
7. M-BI-10: The applicant shall prepare and implement a long-term QCB Management/Enhancement Plan that includes perpetual monitoring and management of habitat areas of potential QCB habitat, including habitat that could be restored or enhanced to provide support for the species.

[6] Represents the conveyance requirement of the Proposed Project Amendment pursuant to the Otay Ranch RMP conveyance formula and illustrates one of the mechanisms that provides for potential QCB habitat conservation. As noted above, the total potential QCB habitat conservation is 765.8 acres.

RECOMMENDED CONSERVATION STRATEGY

As indicated above, the Applicant has secured land use approvals from the County to pursue the Approved Project, and these approvals remain in place. Nevertheless, through the DRA, the Applicant has elected to prepare and pursue a revised project – the Proposed Project Amendment – as a means of addressing Wildlife Agency requests to improve preserve design and develop a Conservation Strategy that would enhance the recovery potential of QCB. Section 3.1.9 of the DRA recognizes that the Proposed Project Amendment, and in particular the designation of PV1, PV3, and Planning Area 16 as hardline preserve through a County-initiated amendment to its MSCP Subarea Plan, "contributes to the conservation of the QCB and its habitat." The next step is to develop an effective Conservation Strategy that incorporates the DRA's effort to reduce impacts on QCB potential habitat, improve preserve design, and improve recovery potential for QCB.

This Conservation Strategy consists of the following four imperatives: (1) reduce the amount of potential QCB habitat proposed for development; (2) maintain and enhance potential QCB habitat connectivity, thereby protecting QCB movement and "live in" habitat within and throughout Otay Ranch; (3) create "functional uplift" within conserved potential QCB habitat; and (4) commit to assessment, adaptation, and management of QCB habitat within the project area to ensure perpetual conservation of QCB, leading to improved recovery status. Each of these four tasks is explained in more detail below. Note that although the four imperatives listed above and discussed below were developed for application to the Proposed Project Amendment, these same imperatives, and the strategies for satisfying them, could be applied to the Approved Project as well, in the event the Proposed Project Amendment is ultimately not adopted.

1. Reduce Development within Potential QCB Habitat

The Approved Project would disturb approximately 789.4 acres[7] of potential QCB habitat. By contrast, the Proposed Project Amendment, if approved, would disturb 527.1 acres of potential QCB habitat, reflecting a 262.3-acre reduction in potential QCB habitat impacts (Table 1).

In addition, the Proposed Project Amendment, as compared to the Approved Project, would improve the conservation-to-impact ratio for suitable QCB habitat. Specifically, the Approved Project would conserve 827.3 acres of potential QCB habitat while disturbing 789.4 acres, resulting in a conservation-to-impact ratio of **1.05 to 1**. By contrast, the Proposed Project Amendment would conserve 765.8 acres of potential QCB habitat, while disturbing 527.1 acres,

[7] The Final EIR for the Approved Project states that development would impact a total of 794.7 acres of potential QCB habitat. This acreage includes the 5.3 acres of development associated with the improvement of Proctor Valley Road within the City of Chula Vista. Since QCB is a covered species within the Chula Vista Subarea Plan, this Conservation Strategy is basing the impact comparison on 789.4 acres (794.7 acres minus 5.3 acres). Potential habitat is defined as the areas of the project that meet the criteria specified by USFWS's survey protocol for protocol-level surveys for QCB.

resulting in a conservation-to-impact ratio of **1.45 to 1**. This level of preservation results in a conservation-to-impact ratio comfortably beyond the 1:1 ratio required by the County under M-BI-9. Note, however, that USFWS calculates the conservation-to-impact ratio slightly differently. Specifically, USFWS calculates the ratio based on how much potential QCB habitat would be conserved ***after*** the land exchange proposed in the DRA occurs. Based on this approach, the Proposed Project Amendment, following the land exchange, would conserve 613.7 acres of potential QCB habitat, resulting in a conservation-to-impact ratio of **1.16 to 1**. Table 2 provides a summary of the QCB habitat conservation acreage for the Proposed Project Amendment.

Table 1. Comparison of Approved Project and Proposed Project Amendment for Potential QCB Habitat Impacts and Conservation

Project Area	**Approved Project**		**Proposed Project Amendment**	
	Impacts (ac)*	Conservation (ac)	Impacts (ac)*	Conservation (ac)
Village 14	402.6		454.7	
PA 16/19	272.3		17.5	
Offsites	80.1		34.8	
LDA Impacted	12.6		-	
MSCP Preserve	21.8		20.1	
On-site Conveyance		404.8		397.7**
Conserved Open Space		72.4		24.5
Biological Open Space Easement		-		191.5
Off-site Conveyance		350.1		-
Subtotal	789.4	827.3	527.1	613.7
Land Exchange Net Conservation	NA	NA	NA	152.1***
TOTAL	**789.4**	**827.3**	**527.1**	**765.8**

*The 5.3 acres that occurs in the City of Chula Vista has been excluded from the potential QCB habitat for the Approved Project (see footnote 7 above) and has been excluded from the Proposed Project Amendment.
**This acreage excludes the portion of the Preserve that is isolated by a connector road, as shown in Figure 1 of the QCB Framework Management Plan (see Appendix A).
***The 152.1 acres of net conservation refers to the difference of potential QCB habitat owned by the Applicant within PV1, PV3, R-15, and R-16 (336.5 acres) that would be exchanged to the state and the potential QCB habitat owned by the state within Parcels A, B, C, and E (184.4 acres) that would be exchanged to the Applicant.

Thus, the Proposed Project Amendment satisfies the first imperative of this Conservation Strategy, in that it reduces the amount of potential QCB habitat that would be developed. Note also that by consolidating the development footprint in Village 14, the Proposed Project Amendment would eliminate 13.1 miles of "edge" at the development/preserve interface compared to the Approved Project.

At the request of the Wildlife Agencies, the Applicant re-evaluated the alignment of a project road (identified as Street I on the Revised TM) that is intended to provide a water transmission line and access to a water reservoir located within the RMP Preserve[8]. The current alignment of the access road, as contemplated in the Proposed Project Amendment, would result in approximately 12.6 acres of impacts (temporary and permanent) to potential QCB habitat. In an effort to reduce these impacts, the project applicant developed an optional road alignment that would locate the road directly adjacent to the Development Footprint, removing most of the road from the Preserve. The applicant, in consultation with the project engineers, has determined that this optional road alignment is feasible and would reduce impacts to potential QCB habitat by 8.3 acres. The optional road realignment would also reduce fragmentation and edge effects as compared to the alignment that would occur as part of the Proposed Project Amendment. The optional road alignment will be evaluated by the County for approval, therefore the acreages in this QCB Conservation Strategy reflect the current design for the Proposed Project Amendment. Should the County approve the optional road alignment, the acreages in this QCB Conservation Strategy will be adjusted accordingly.

Table 2. QCB Conservation Acreage Summary – Proposed Project Amendment

Project Area[1]	QCB Conservation Acres[2]
Village 14 RMP Preserve	
I	5.5
II	42.3
III	26.2
IV	162.0
V	14.9
Subtotal	250.9
PA 16/19 RMP Preserve	
VI	13.9
VII	51.3
VIII	23.3
IX	10.5
X	47.8
Subtotal	146.8
Conserved Open Space	
XI	1.2
XII	9.4
XIII	6.3
XIV	6.2
XV	1.1
XVI	0.3
Subtotal	24.5

[8] The reservoir and the water transmission line are approved facilities within the RMP Preserve.

Table 2. QCB Conservation Acreage Summary (cont.)

Project Area[1]	QCB Conservation Acres[2]
R-14 Conservation Easement	
XVII	191.5
Subtotal	191.5
TOTAL	**613.7**

[1]Project Area refers to the 17 project areas identified on Figure 1 of the Framework Management Plan.
[2]QCB Conservation Acreage refers to the amount of potential QCB habitat that occurs within each of the 17 project areas and excludes portions that do not contain physical or biological features of QCB habitat, as shown on Figure 1 of the QCB Framework Management Plan (see Appendix A). Subtotals may be off slightly due to rounding.

2. Maintain and Enhance Potential QCB Habitat Connectivity

PV1: PV1 contains important patches of QCB host plant and also lies adjacent to potential QCB habitat where QCB sightings had occurred during past surveys. One QCB larva was observed on PV1 on December 12, 2019. Therefore, where the Approved Project allows development of PV1, the Proposed Project Amendment would not. Instead, the DRA includes a process to amend the County's MSCP Subarea Plan that would designate all of PV1 – approximately 18.9 acres – as hardline preserve, thus providing for expansion of existing wildlife corridor buffer areas and additional live-in potential habitat for QCB. In addition, by including PV1 in the Preserve, the Proposed Project Amendment would eliminate the Approved Project's proposed road crossing within wildlife corridor L4, thereby enhancing QCB and wildlife movement opportunities in this area.

PV3: The Approved Project contemplates development on 120.5 acres of the 134.5 total acres within the PV3 site. The DRA includes a process to amend the County's MSCP Subarea Plan to designate hardline preserve on approximately 95% of PV3, excepting only a small 6.1-acre area of the parcel needed for a stormwater detention basin, and a short segment of Proctor Valley Road. Note that Proctor Valley Road is a County mobility element road and an essential public facility in the MSCP. Preserving approximately 95% of PV3 further enhances the existing connectivity between the QCB habitat areas to the south (Village 13) and the QCB habitat areas to the northwest (San Miguel Mountain). Preservation of PV3 would not only preserve the unrestricted QCB movement provided by the Approved Project design, it would also further expand unrestricted QCB movement along a lower elevation route to upper Otay Reservoir, as well as a broader connection to the more rugged ridgeline north of Lower Otay Reservoir.

3. Create "Functional Uplift" Within Conserved Potential QCB Habitat

Currently, no part of the Approved Project site is being managed specifically for the benefit of the QCB. Likewise, no part of the Proposed Project Amendment project area – including that portion currently owned by CDFW – is currently being actively managed for the benefit of QCB.

Through the long-term QCB Management Plan, this element of the Conservation Strategy mandates that qualified biologists monitor and report on the quality and functionality of the conserved potential QCB habitat, including status of host plant. To assist in this effort, and to comply with County mitigation measure M-BI-10, the Applicant or its designee/transferee shall prepare and implement a QCB Management Plan, which will require that the Applicant or designee (i.e., the preserve owner/manager [POM]) implement an adaptive management strategy to ensure that the functionality of the conserved potential QCB habitat be maintained in the face of changed conditions or unexpected events. The QCB Management Plan shall be subject to Wildlife Agency review and approval and shall address potential QCB habitat within those areas placed into Preserve or otherwise conserved by virtue of the Proposed Project Amendment, and shall focus on the higher quality extant QCB host plant patches and those areas targeted for restoration.

Preparation and implementation of a long-term QCB Management Plan for the Proposed Project Amendment, as required by M-BI-10, would alter this situation to create "functional uplift" within the conserved potential QCB habitat. This plan would involve, at a minimum, the following four tasks: (1) controlling invasive species and allowing for the expansion of existing host plant resources within QCB habitat nodes or other areas targeted for weeding and enhancement as identified in the QCB Framework Management Plan (Appendix A). This will include a minimum of two (2.0) acres of QCB host plant expansion; (2) seeding of more host plant (e.g., *Plantago erecta*) in Preserve areas with the proper soil and topographic characteristics; (3) monitoring and reporting as to the quality and functionality of the conserved potential QCB habitat and (4) implementing an adaptive management strategy.

As contemplated herein, the effort to control invasive species would target existing higher quality QCB host plant patches as well as areas most suitable for restoration, and the monitoring and potential replacement of newly seeded host plant would become new and perpetual responsibilities of the POM.

The goal of the plan should be to enhance the potential QCB habitat within the Preserve and thereby provide conditions suitable to support the species in perpetuity. The plan should include the following:

- Host plant seeding and removal of non-native plants in the Preserve shall take place first within QCB high density host plant areas (nodes) and in areas identified for enhancement based on QCB host plant mapping.

- A requirement to monitor the status of QCB habitat and high density QCB host plant in perpetuity.

- A requirement to monitor the status of QCB and periodically survey (non-protocol surveys) for QCB in perpetuity.

- A requirement to compare habitat monitoring data every 6 years to identify any new or significant changes to habitat. If habitat quality or functionality has significantly decreased or if it appears to be under threat based on host plant mapping and habitat assessment, the Applicant or its designee (i.e., the POM) shall initiate discussions with QCB experts, the County, and Wildlife Agencies to determine whether and to what extent management actions must be taken to prevent further degradation. Such discussions should focus on identifying specific management actions to improve habitat function, such as non-native plant removal, de-thatching, seeding of host plants and/or nectar plants, and focused habitat restoration.

- Adaptive management.

4. Fund Management and Enhancement

This element of the Conservation Strategy outlines the funding commitment. The most essential component is that the Applicant establish a Community Facilities District (CFD) or similar mechanism to fund all QCB-related management activities described herein and related to M-BI-10. As a prerequisite of CFD funding, the County, the Applicant, CDFW and/or USFWS must enter into a joint community facilities agreement or similar arrangement for management activities that would occur on State lands (the joint community facilities agreement would not apply to POM-managed lands). The timing of the CFD funding will occur upon issuance of the grading permit for the Proposed Project Amendment.

Separately, the Applicant shall provide funding for re-establishment of two acres of QCB host plant patches within the context of the larger long-term management strategy outlined in the QCB Management Plan. Funding shall include 5 years of maintenance and monitoring to ensure the successful establishment of these two acres of habitat.

5. Framework QCB Management Plan

A QCB Framework Management Plan collaboratively developed by USFWS, CDFW, the County and HELIX, is incorporated into this Conservation Strategy as Appendix A. The Framework Management Plan, this Conservation Strategy, and the Biological Assessment (to be prepared as part of the permitting with U.S. Army Corps of Engineers) shall serve as the basis for QCB Take Authorization.

6. Conclusion

To offset the Proposed Project Amendment's impacts to 527.1 acres of QCB Potential Habitat and 4.21 acres of QCB host plants, this QCB Conservation Strategy will provide the following:

- 613.7 acres of QCB Potential Habitat would be conserved
- 2.60 acres of QCB host plants would be conserved
- 1.23 acre of QCB host plants would be maintained and enhanced as part of the QCB Framework Management Plan. The acreage of QCB host plants is expected to change over time as part of adaptive management.
- 2.0 acre of QCB host plants would be established/re-established as part of a separate QCB habitat restoration effort.

The details of the 1.23-acre QCB host plant enhancement and the 2.0-acre QCB habitat restoration are provided in the QCB Framework Management Plan (Appendix A).

Memorandum

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APPENDIX A

OTAY RANCH VILLAGE 14 AND PLANNING AREA 16/19

QCB FRAMEWORK MANAGEMENT PLAN

March 3, 2020

PURPOSE: This Framework Management Plan (FMP) for Otay Ranch Village 14 and Planning Area 16/19 summarizes the management approach for Quino checkerspot butterfly (QCB), discusses three focused management scenarios, identifies the selected management scenario, and discusses long-term management based on an adaptive management approach within the Quino Checkerspot Butterfly Conservation Area (QACA)[1]. This FMP summarizes the approach collaboratively developed by USFWS, CDFW, the County, and HELIX.

There are three overall goals for long-term management:

1) Maintain and enhance habitat connectivity between core QCB populations south of the Approved Project with QCB populations northwest of the project;

2) Maintain adequate QCB host plant resources to support a viable long-term QCB occurrence complex within the Proctor Valley region in perpetuity; and

3) Assure that 4.21 acres of QCB habitat are preserved and/or restored for impacts to 4.21 acres of QCB host plant resulting from implementation of the Proposed Project Alternative[2].

The goals will be met through the following objectives. A general summary of the objectives is provided below, and the QCB Management Plan that will be provided separately will provide greater detail of each of the objectives:

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[1] The Quino Checkerspot Butterfly Conservation Area (QACA) is defined as the Otay Ranch Village 14 and Planning Area 16/19 Preserve Areas and areas exchanged from the state (i.e., PV1, PV3, R-14, R-15, and R-16), which are defined in Figure 1.

[2] The Applicant and the County have agreed to process a revised project design through a process described in the Dispute Resolution Agreement (DRA), and is referred to herein as the "Proposed Project Amendment". The DRA was negotiated, prepared and executed jointly by the Applicant, CDFW, USFWS and the County.

- Objective 1: Maintain and enhance 1.23 acres of host plants within existing nodes of QCB resources in the western portion of the QACA. This will occur through management and monitoring of 25.5 acres within node clusters. Nodes and node clusters are defined on page 3 below. Node clusters will be managed within the larger context of suitable habitat within the QACA. The long-term goal shall be to manage all 6 node clusters until they reach a low management level as defined on page 3 of this plan similar to node clusters 1 and 2. The expectation is that these 6 node clusters would reach a low management level within 10 years of implementation of the QHCP. Objective 1 would help to meet Goals 1 and 2.

- Objective 2: Expand the number of node clusters to be managed as Objective 1 is being met. For example, once a node cluster is moved from moderate maintenance to low maintenance, the management funding that is freed up can be spent on a new node cluster. The long-term goal will be to add management of 20 nodes within R-14 or other area prioritized by the habitat manager. Objective 2 would help to meet Goals 1 and 2.
- Objective 3: Provide monitoring to track the success of achieving performance standards 1 and 2. This will be accomplished through: a) Host plant mapping every 3 years to demonstrate that 1.23 acres of host plants occur within the 20 nodes and to identify host plant distribution across the QACA bearing in mind that host plant expression is highly dependent on environmental conditions, especially rainfall, and the increase will need to be considered over multiple years; b) QCB adult flight monitoring of the habitat nodes to assess occupation of the nodes (assumed 2 of every 5 years during good QCB flight years); c) Surveys of the QACA within the Otay Ranch preserve by the Otay Ranch Preserve Operator Manager (POM) every 5 years; d) Provide photo-documentation of the node clusters as part of the annual report; and e) Prepare an annual report and work plan. Objective 3 would help to meet Goals 1, 2, and 3.
- Objective 4: Re-establish 2 acres of host plant patches as part of a 5-year maintenance and monitoring effort. Host plant mapping as part of the restoration work will need to demonstrate a net increase of 2 acres within the restoration site(s). Objective 4 would help to meet Goals 1, 2, and 3.

This FMP outlines the mechanisms to assure that Goals 1, 2, and 3 are met. The detailed long-term Quino Checkerspot Butterfly Management/Enhancement Plan (QCB Management Plan), which satisfies Bio Condition M-BI-10, will be prepared, as required by the County, utilizing the FMP provided below. Note that although the FMP discussed herein was developed for application to the Proposed Project Amendment, the FMP, with some modification, could be applied to the Approved Project as well, in the event the Proposed Project Amendment is ultimately not adopted.[3]

[3] The term "Approved Project" refers to the Village 14/Planning Areas 16 and 19 project that the County Board of Supervisors approved on June 26, 2019. The applicant currently possesses County land use entitlements to develop the Approved Project. The Proposed Project Amendment, if approved, would modify the Approved Project.

PART 1 - BIOLOGIST EFFORTS

Based on these three goals, existing host plant mapping on the project area and QCB sightings for the region were reviewed, and higher density QCB host plant areas (hereafter referred to as nodes) were identified. These generally consisted of *Plantago erecta* point data and polygons that were either 100-999 individuals or 1,000-9,999 individuals in size that also occurred within close proximity of other higher host plant locations. A 50-foot buffer was then added to these point data or polygons to create each node. Where the 50-foot buffer overlapped with another node, the buffer for the two nodes was collapsed into a single polygon, and the acreage value for both nodes was combined when determining weeding requirements for both nodes (hereafter referred to as host plant node clusters). Independently, USFWS also modeled host plant data and identified polygons of higher host plant values, and these lined up well with the nodes identified by HELIX. HELIX identified a total of 41 potential host plant nodes (Figure 2).

Based on discussions with USFWS and CDFW staff, as well as a review of literature on species population viability, it was agreed that in order to meet Goals 1 and 2, a minimum of 20 nodes would need to be targeted for preservation and enhancement, and that these nodes should occur in clusters of at least 3 or 4 nodes to allow for year to year variability in weather and habitat conditions. In other words, if each node cluster consisted of 4 nodes, there would need to be a total of 5 node clusters (20 nodes divided by 4 = 5 node clusters). The area between nodes within the cluster and, where appropriate, additional habitat areas beyond the 50-foot buffer, were combined into a single boundary to form the area to be maintained for any given cluster. The area beyond the nodes within a cluster is identified as the "interstitial management area" for costing purposes. It is anticipated that goal three will be met through enhancement and expansion of existing habitat patches within these 20 habitat nodes and corresponding node clusters and through implementation of a two-acre QCB host plant rehabilitation/re-establishment plan.

HELIX, USFWS, and CDFW then conducted a site visit on December 12, 2019 to look at existing nodes and potential node clusters in the project area, and to discuss the existing conditions and management expectations in these areas. PV-1 and several sites within the southern portion of the project preserve were visited. HELIX staff further reviewed all 41 potential host plant nodes on December 18 and 20, 2019 to assess the management level for each node. HELIX and USFWS conducted an additional site visit on December 20, 2019 of the "Bus-stop" restoration site currently being restored and monitored within USFWS refuge lands northwest of the project area. HELIX then incorporated feedback from USFWS and CDFW to refine and prioritize node clusters and to develop annual maintenance costs for each of the three potential management scenarios (described in more detail below). The levels of management have been categorized into three tiers to reflect the level of effort that would be needed in the different areas:

- Low maintenance areas are nodes that are considered to be in good condition and would require minimal weeding. Efforts will focus on maintaining the existing condition.

- Moderate maintenance areas are nodes that would require a greater level of weed control as compared to low maintenance sites. These would include areas generally in good condition where QCB host plants are the dominant species present, but non-native grasses or other weed species are present and would need to be controlled. It is anticipated that moderate maintenance areas will transition over to low maintenance areas over time, and that the existing host plant polygons will expand over time as a result of weeding efforts within the 50-foot buffer area.

- High maintenance areas are nodes that would require a much higher level of focus for weed control as compared to low and moderate maintenance sites. These would include areas where non-native grasses and other weed species are more prevalent and would require more weed maintenance to remove. Seeding with host plants may be needed in these areas. It is anticipated that high maintenance areas will transition over to moderate, and eventually low maintenance areas over time, and that the existing host plant polygons will expand over time as a result of weeding efforts within the 50-foot buffer area.

- Interstitial management areas will be weeded to remove high priority target species at a lower overall effort initially than the host plant nodes and 50-foot buffer (except for the two acres of rehabilitation/re-establishment noted below). It is anticipated that these areas will be able to be weeded more intensively if needed as the 50-foot buffers become less weedy through their more intensive weeding effort.

The classification scale is intended to allow for changes in the habitat quality mapping through time. As weed maintenance occurs on an annual basis in moderate and high maintenance areas, the expectation is that these nodes will be on a trajectory towards a low maintenance classification tier.

PART 2 - MANAGEMENT AND ENHANCEMENT SCENARIOS

The following is a description of three potential management scenarios. Note, however, that other scenarios could also be identified, and that the scenarios will change over time as weeding efforts allow for additional nodes to be added to the weeding program. This is considered in the adaptive management component of the QCB Management Plan. As part of any of the management scenarios, the lands that would be managed for QCB will improve through time as active management occurs and as weed cover decreases. As areas improve through time, less management efforts will be needed for those areas, which will allow for additional areas to be added to the QCB Management Plan. It is important to bear in mind that the management scenarios described below are ***in addition to*** the QCB Management that is independently funded and performed by the Otay Ranch Preserve Operator Manager (POM) within the Otay Ranch RMP Preserve.

Furthermore, other potential management scenarios could be developed, including scenarios that could be applied to the Approved Project as well as the Proposed Project Amendment, and these would follow the methodologies included in this FMP and satisfy the four imperatives outlined in the QCB Conservation Strategy.

Scenario A – Improved/Enhanced Western Linkage

Scenario A was developed to improve connectivity and population viability in the western portion of the site beyond what was shown for the Approved Project (Figure 3). The 20 nodes include the following node clusters:

- PV-1 (5 nodes)
- Preserve Corridor (4 nodes)
- PV-3 Central (6 nodes)
- PV-3 South (5 nodes)

The total area for Scenario A node clusters is 25.5 acres.

Scenario B – Improved/Enhanced Western Linkage and R-14 Linkage

Scenario B was developed to improve connectivity and population viability in the western portion of the site beyond what was shown for the Approved Project and also enhance connectivity and population viability through R-14. The 20 nodes include the following node clusters:

- PV-1 (5 nodes)
- PV-3 Central (5 nodes)
- PV-3 South (4 nodes)
- R-14 (6 nodes)

The total area for Scenario B node clusters is 21.6 acres.

Scenario C – Preserve Enhancement

Scenario C was developed to improve population viability in the Approved Project preserve, PV-1, and R-14. The 21 nodes include the following node clusters:

- PV-1 (5 nodes)
- Preserve Corridor (5 nodes)
- PV-3 South (5 nodes)
- Preserve Southeast (4 nodes)
- Preserve Central (2 nodes)

The total area for Scenario C node clusters is 22.5 acres.

PART 3 - ESTIMATED MANAGEMENT AND ENHANCEMENT COSTS

Scenario A Cost Assumptions

Upon further discussions with USFWS and CDFW staff, it was decided to focus on Scenario A (Figure 3) for the FMP. Scenarios B and C, however, do provide illustrative examples of adaptive management options over time. Based on the above, a preliminary cost estimate for weeding was developed for Scenario A with the following assumptions:

- Low maintenance areas could be weeded at a rate of three acres per day;
- Moderate maintenance areas could be weeded at a rate of one acre per day;
- High maintenance areas could be weeded at a rate of 0.5 acre per day;
- Interstitial management areas can be weeded at a rate of four acres per day;
- The cost per crew day, including 4 crew members and a biological monitor, is $2,760;
- Two visits are assumed each year;
- Nodes 1-5 meet the criteria for low maintenance;
- Nodes 6-9, 11-15, 17, and 22-26 meet the criteria for moderate maintenance;

- There were no nodes requiring high maintenance;
- The total area receiving treatment is 25.5 acres;
- The total area of plantago patches and points is 1.23 acres;
- Nodes 1-5 (low) are in close proximity, require hiking approximately 0.2 miles to access, total 3.3 acres and can be accomplished in 1 crew day per visit;
- Nodes 6-9 (moderate) are in close proximity, have ready access, total 1.43 acres and can be accomplished in 1.5 crew days per visit;
- Nodes 11-15 and 17 (moderate) are in close proximity, have reasonable access, total 2.06 acres and can be accomplished in 2.5 crew days per visit;
- Nodes 22-26 (moderate) are in close proximity, require hiking approximately 0.6 miles to access, total 1.20 acres and can be accomplished in 1.5 crew days per visit. For cost purposes it is assumed that nodes 11-15, 17, and 22-26 will be accomplished in 4 days (2.5 for 11-15 and 17 and 1.5 for 22-26);
- Interstitial management areas total approximately 16 acres and would be accomplished in 4 days; and
- Total crew days per visit is 11 days. 11 crew days x two visits is 22 crew days.

Based on the assumptions above, the weeding costs would be approximately $60,720. This would allow for remaining funds ($14,280 based on the $75,000 funding proposed through the CFD) to be used for management, monitoring, and other activities that would benefit QCB. These are discussed under "Other Management Costs" below. See Attachment A for detailed cost estimates.

Additional Management and Enhancement Tasks and Cost Assumptions

The following additional management tasks are included in this FMP. The annual cost and funding mechanism for each is provided in parentheses as appropriate. Please note that these are separate from management activities such as access control, weeding of the preserve, focused QCB surveys every 5 years, and general biological monitoring that will be provided by the POM under the Otay Ranch RMP.

1. QCB Host Plant Mapping ($1,133; CFD). During the first year and every three years thereafter[4], map the extent and abundance of host plants within high host plant areas and adjacent moderate host plant areas for the QACA. For areas with dense patches of host plants, record the boundaries with a GPS device, number the location, and estimate population size and density (i.e., percent cover), and percent cover of invasive species, and other threats. For both the high and moderate host plant areas, conduct a visual assessment of host plant and nectaring resources, along with non-native weed cover and threats using a methodology similar to the SDMMP rare plant monitoring protocol. Based on this data, in coordination with SDMMP and other regional efforts as needed, identify host plant enhancement areas where additional non-native plant removal and/or future seeding needs to occur, as well as monitor long-term trends of overall habitat quality for the QCB. A portion of the QCB host plant mapping will be completed by the QCB monitoring biologist as part of the 20 days of full time monitoring to be conducted as part of

[4] Surveys will be planned to occur in years of rainfall/climatic conditions that maximize QCB host plant observations

the weed maintenance program. This task budget allows for an additional 20 hours of time to complete the QCB host plant mapping within the QACA.

2. Prepare and Submit Annual Reports ($3,150; CFD). Prepare and submit information regarding management and monitoring for the QCB Management Plan for inclusion in the Otay Ranch Resource Management Plan (RMP) annual report that summarizes management activities and monitoring results conducted during the year for each objective, an assessment of the success of those management tasks, and measures recommended for the coming year to achieve the goals of the QCB Management Plan.

3. Prepare and Submit Annual Workplan ($2,520; CFD). Prepare and submit information regarding the QCB Management Plan in the RMP annual workplan that spells out the specific tasks that will be implemented in the coming year to achieve the recommendations outlined in the annual report.

4. Financial Tracking ($600, CFD). Provide information regarding the QCB Management Plan funding in the RMP annual report including an accounting of funds used for management that year, a proposed budget for management in the coming year, and a summary statement of the status of the endowment fund.

5. Photo Point Monitoring ($240; CFD). During the first year of management, the designated Resource Manager will select 4 photo locations for each node cluster that can be used as photo points to document the visual status of the habitat. The photo points will be recorded using GPS and shown on a figure in the annual report. Photos will be taken once a year at each of the photo points and submitted in print and/or electronically with each annual report. Any changes observed in the photos will be explained in the report and addressed as necessary. The majority of the photo point monitoring will be completed as part of the 20 days of biological monitoring to be completed for the weed maintenance program. This task budget allows for an additional 2 hours of time to organize and complete the monitoring described in this task.

6. Update QCB Management Plan ($1,326; CFD). Conduct a review of the QCB Management Plan goals, objectives, and tasks every five years and make the appropriate modifications. Submit proposed QCB Management Plan modifications to the Wildlife Agencies for review and concurrence prior to finalizing changes.

7. Coordinate with Adjacent Property Owners ($1,200; CFD). The designated Resource manager will meet at least annually with adjacent property owners such as the POM, USFWS, CDFW, and City of San Diego to coordinate weed control actions, fire management, and public access control.

8. Additional Monitoring ($1,536; CFD). Conduct additional QCB adult surveys within high priority areas (node clusters being managed and areas with higher QCB host plant resources) of the QACA as needed to help refine management approaches, collect additional data to inform future management, conduct focused searches for QCB and/or host plants, and/or evaluate effectiveness of management. Two surveys would be performed at the peak of the flight season in good flight season years. It is assumed that there would be two days per survey event (4 days per flight year), and that the surveys would be conducted 2 out of every 5 years to account for variability of flight years.

9. Habitat Rehabilitation/Re-Establishment (Not to Exceed $250,000; Applicant). In addition to weeding and enhancement noted above, the FMP includes habitat rehabilitation/re-establishment of two (2.0) acres of QCB host plants within the 16.3 acres of interstitial management areas or another two-acre area, or combination thereof, as acceptable to the County and Wildlife Agencies. This, in combination with 2.1

acres of onsite preservation and enhancement of existing habitat patches will result in a 1:1 ratio of long-term preservation to host plant impacts for the Proposed Project Amendment. The rehabilitation/re-establishment plan shall include initial site treatment and seeding, five years of maintenance and 5 years of biological monitoring. Funding for this rehabilitation/re-establishment plan will be separate from long-term management funding and is estimated not to exceed $250,000. This FMP specifies that such funding will be secured as required by the County.

The not-to-exceed budget of $250,000 is based on the following cost assumptions

- The cost per crew day, without a biological monitor, is $1,800;
- Site preparation and installation will require 12 crew days ($21,600);
- Seed costs assume $120/pound of seed at 21 pounds per acre ($5,040);
- Three weed control visits are assumed each year, which would be a total of 75 crew days ($135,000);
- 5-year monitoring and reporting ($87,000).

Financial Reserve/Contingency

In addition to the management and enhancement tasks that would be funded above, the CFD will include a 10 percent contingency budget on an annual basis ($7,243). The "contingency" reserve funds would only be utilized in response to extraordinary, unexpected circumstances, such as efforts to shift management focus following a wildfire or vandalism. Those "contingency" reserve funds would not be used to cover cost overruns. The balance of the "contingency" funds will be tracked, and the balance will be included in each annual report. The contingency accrual will not exceed $7,243 (10 percent of the annual CFD) on an annual basis, consistent with CFD requirements.

It is also worth noting that additional funds will be earmarked on an annual basis as future financial reserve. For example, certain management tasks are not completed annually, such as QCB host plant mapping, updates to the QCB management plan, and QCB surveys. Therefore, in years when the host plant mapping is not conducted, the $1,133 that is earmarked in the annual budget will be placed in the reserve for every third year when host plant mapping is conducted.

Lastly, in years when not all tasks are completed, the unused funds will be earmarked for future financial reserve funds. For example, in drought years when not as much weed maintenance is required, the unused funds will be placed in the reserve and saved for future years when additional weeding might be needed. The balance of the reserve funds will also be tracked on an annual basis and included in the annual reports. The balance of the reserve funds will be tracked separately from the balance of the "contingency" funds.

Cost Recap

Additional Management Tasks 1 through 8 above total $11,705 and when combined with the Scenario A weeding costs of $60,720 and the 10 percent contingency costs of $7,243, the total annual cost funded in perpetuity would be $79,668. The Applicant will also directly fund habitat rehabilitation/re-establishment to assure no net loss of host plant resources. Additionally, the POM will provide funding and management in the Otay Ranch RMP preserve. These three efforts, in combination, assure that the stated QCB Conservation Strategy goals are met.

Attachments:

Attachment A: Scenario A Plus Additional Management Tasks 1-8 Cost Assumptions

Figures:

Figure 1: QCB Conservation Area Acreages

Figure 2: QCB Host Plant Nodes

Figure 3: QCB Host Plant Node Clusters

Attachment A - Scenario A Plus Additional Management Tasks 1-8 Cost Assumptions
3/3/2020

Crew Day Cost

	Crew day	Biologist	Daily Rate
Assumptions	$ 1,800	$ 960	$ 2,760

Scenario A - Improved Western Linkage Adding Interstitial Areas

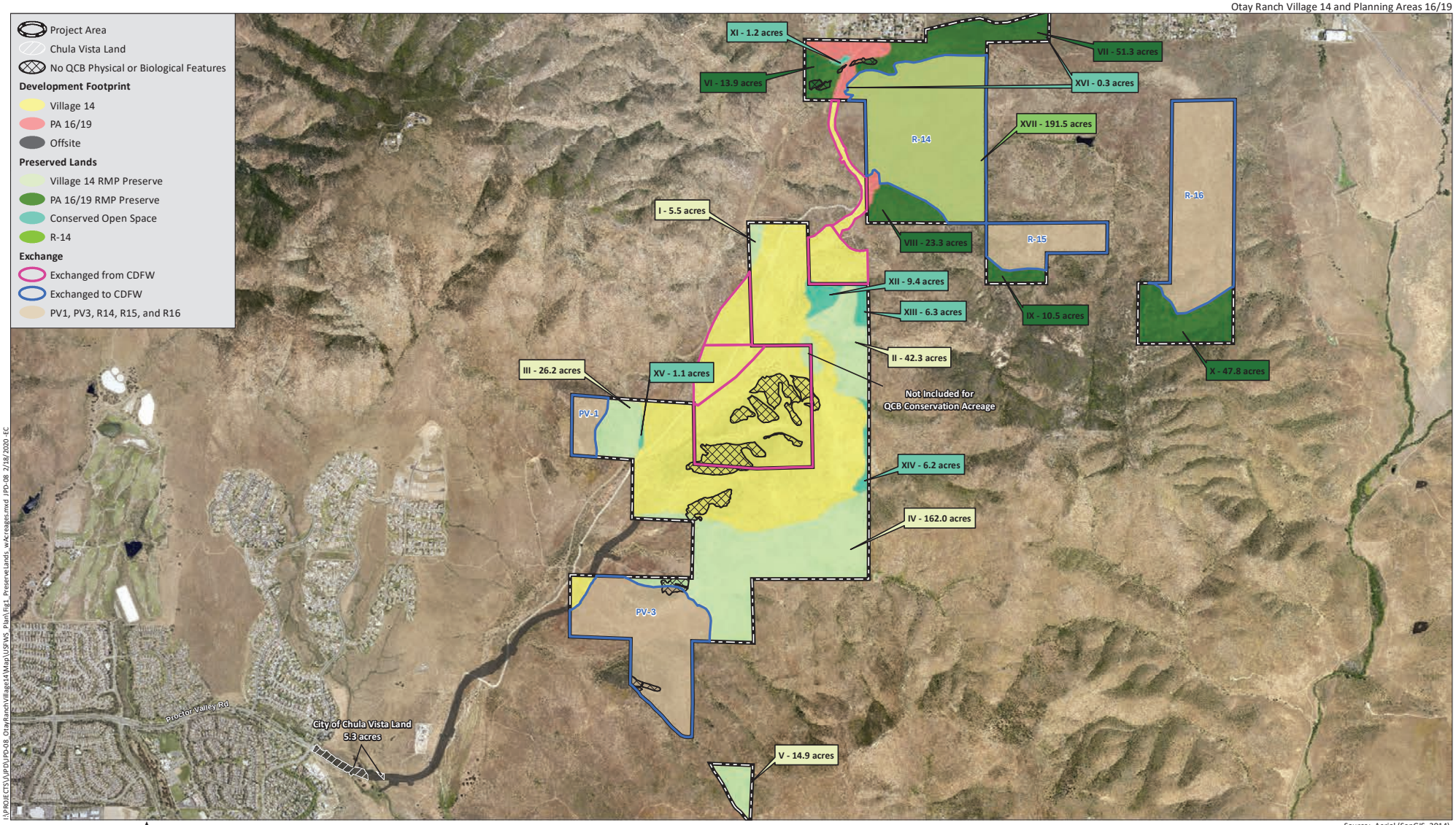
			Crew Days			
Level of effort	**Acres**	**Acres/Day**	**Single Visit**	**Two Visits**	**Total**	**Cost**
Low	3.3	3.0	1.0	2.0	2.0	$ 5,520
Insterstitial	3.3	4.0	1.0	2.0	2.0	$ 5,520
Moderate	4.7	1.0	6.0	12.0	12.0	$ 33,120
Insterstitial	13	4.0	3.0	6.0	6.0	$ 16,560
High	0	0.5	0.0	0.0	0.0	$ -
Total	**24.3**		**11.0**	**22.0**	**22.0**	**$ 60,720**

Additional Managment Tasks

Task	**Hours**	**Hourly**	**Total Cost**	**Frequency (# of Years)**	**Annual Cost**
1. Host Plant mapping	20	$ 120	$ 2,400	3	$ 800
GIS	10	$ 100	$ 1,000	3	$ 333
2. Annual report	20	$ 120	$ 2,400	1	$ 2,400
	5	$ 150	$ 750	1	$ 750
3. Annual work plan	16	$ 120	$ 1,920	1	$ 1,920
	4	$ 150	$ 600	1	$ 600
4. Financial tracking	4	$ 150	$ 600	1	$ 600
5. Photo documentation	2	$ 120	$ 240	1	$ 240
6. Update QCBMP	24	$ 120	$ 2,880	5	$ 576
	5	$ 150	$ 750	1	$ 750
7. Coordination with Adjacent Property Owners	8	$ 150	$ 1,200	1	$ 1,200
8. Additional Monitoring	32	$ 120	$ 3,840	2.5	$ 1,536
Total					**$ 11,705**

Annual Financial Reserve/Contingency (10% of Annual Budget) **$ 7,243**

GRAND TOTAL **$ 79,668**



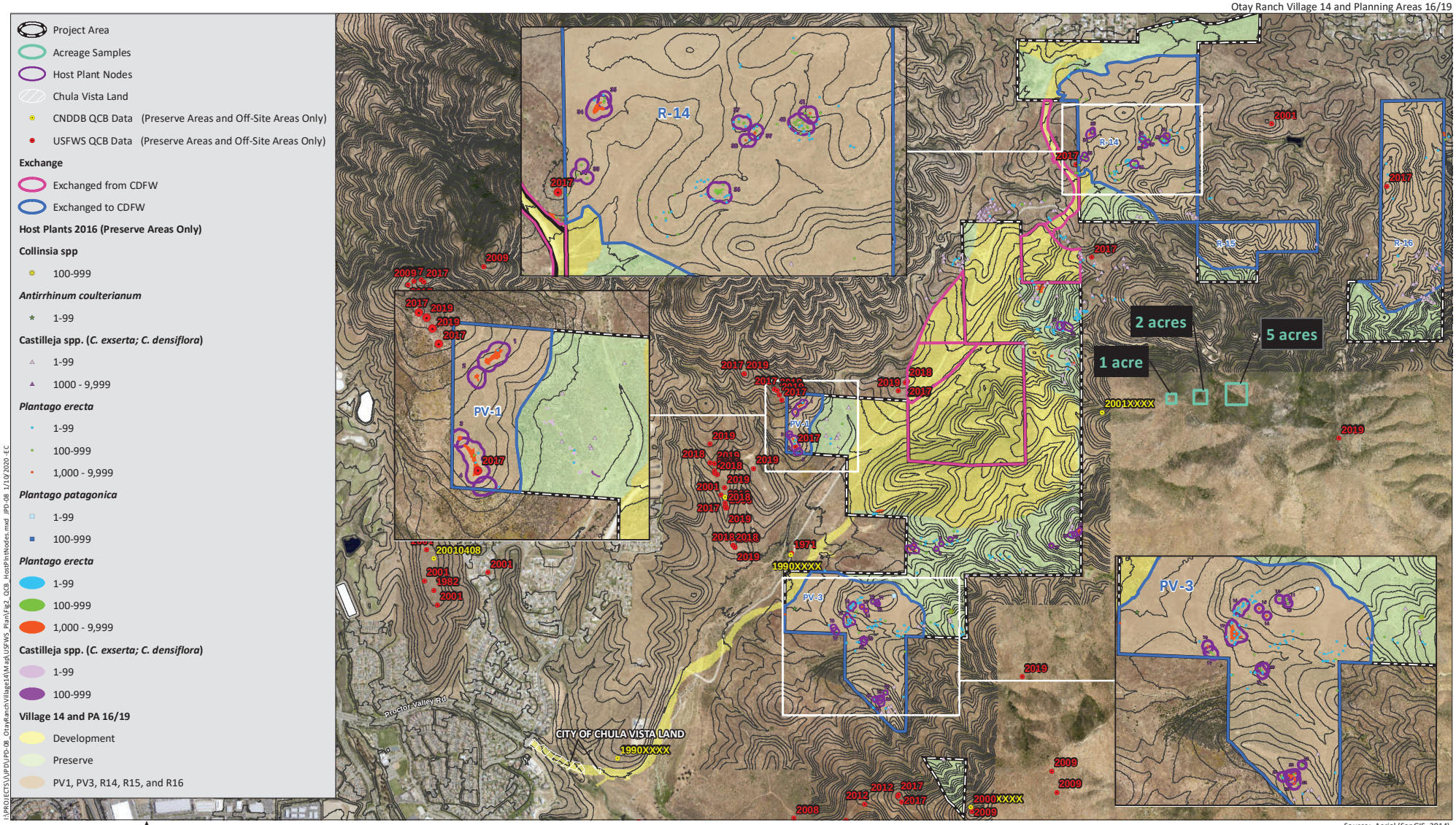
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HELIX Environmental Planning

QCB Conservation Area Acreages

Figure 1

Otay Ranch Village 14 and Planning Areas 16/19

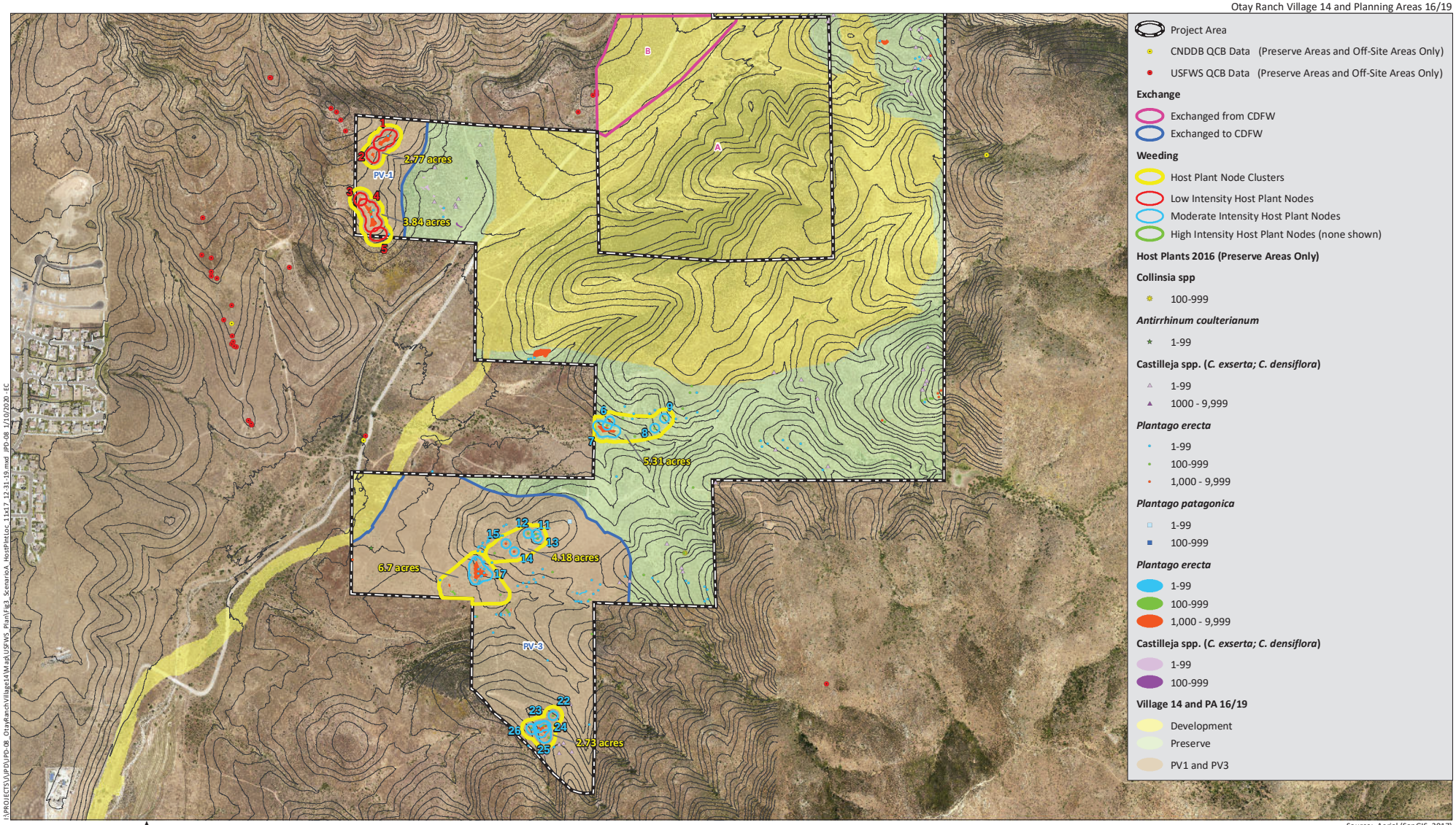


Source: Aerial (SanGIS, 2014).

HELIX Environmental Planning

QCB Host Plant Nodes

Figure 2



I:\PROJECTS\JPD\JPD_08 OtayRanchVillage14\Mxd\USFWS PlanFig3 ScenarioA HostPlntLoc 11x17 12-31-19.mxd JPD_08 1/10/2020 EC

0 1,000 Feet

Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Scenario A Host Plant Node Cluster Locations

Figure 3

Appendix ~~C~~D

Biological Mitigation Ordinance Analysis

DRAFT

Proposed Project Amendment
Biological Mitigation Ordinance Findings for
PV2 and a Portion of PV3 Located in Otay Ranch Village 14
San Diego County, California

Lead Agency:

County of San Diego

Planning and Development Services

PDS2016-SP-16-002

5510 Overland Avenue
San Diego, California 92123

Project Applicant:

GDCI Proctor Valley L.P.

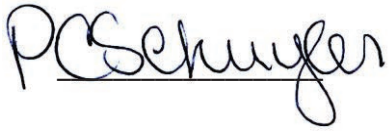
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Acronyms and Abbreviations

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

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1 Introduction

1.1 Proposed Project Amendment

On June 26, 2019, the San Diego County Board of Supervisors ("County Board") approved the Otay Ranch Village 14 and Planning Areas 16/19 project (herein referred to as "the Approved Project"). The County Board also certified the Final Environmental Impact Report (Final EIR) for the Approved Project, and adopted findings demonstrating the Approved Project's consistency with the County's Biological Mitigation Ordinance (BMO). Most of the Approved Project is exempt from the BMO, but certain parcels within Village 14 – known as Proctor Valley (PV) 1, 2, and 3 – are subject to the BMO, thus necessitating BMO consistency findings.

Shortly before the County held the June 26, 2019, hearing on the Approved Project, the project applicant attempted to resolve certain issues raised by the California Department of Fish and Wildlife ("CDFW"), most of which related to the proposed development on PV1, PV2, and PV3. As part of that effort, the applicant entered into a Dispute Resolution Agreement ("DRA") with CDFW, the U.S. Fish and Wildlife Service ("USFWS"), and the County of San Diego (County), which outlines a series of processes which, if followed successfully through to completion, could result in a project that differs in key respects from the Approved Project. The DRA was executed on June 27, 2019, but the processes described within it are expected to take between 9 to 12 months to complete. For purposes of this document, the project contemplated by the DRA processes is referred to as the "Proposed Project Amendment."

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

As indicated above, when the County approved the project, it also adopted findings demonstrating that development of PV1, PV2, and PV3 could be accomplished consistent with the BMO. The purpose of this document is to address whether those consistency findings remain valid for purposes of the Proposed Project Amendment. The Proposed Project Amendment, as compared to the Approved Project, would not change the amount of development previously contemplated at PV2. It would, however, transfer PV1 and 96% of PV3 to CDFW. To reflect this transfer, the County's proposed Subarea Plan Amendment would designate PV1 and 128 acres of PV3 as hardline Preserve. Based on these facts, the BMO consistency findings originally adopted by the County on June 26, 2019, remain valid. Below, we discuss how those consistency findings differ for the Proposed Project Amendment. Again, however, the conclusion remains the same in both cases – that is, the Approved Project and the Proposed Project Amendment can both be implemented consistent with the BMO.

The Proposed Project Amendment proposes 1,266 homes within a Project Area of 1,543 acres. The actual Development Footprint would be approximately 578.6 acres. Of the 1,266 residential units, 1,253 residential units would be located in Village 14, and 13 estate lots would be located in Planning Area 19. The Proposed Project Amendment requires a Specific Plan Amendment and Revised Tentative Map, both of which must be approved by the County.

1.2 Proposed Project Amendment Background

In 1993, the County Board approved the Otay Ranch General Development Plan/Subregional Plan ("GDP/SRP") and certified the Final Program EIR for that project (the "1993 GDP/SRP FEIR"). As part of its impact analysis, the 1993 GDP/SRP FEIR evaluated the effects of the GDP/SRP on biological resources within Village 14, including those located on three parcels known as PV1, PV2, and PV3 (Figure 1, Otay Ranch Village 14 and Planning Areas 16/19). The same parcels, and the biological resources within them, were assessed again in 2011 as part of the County's General Plan Update ("2011 GPU") and Program EIR. The 1993 GDP/SRP and the 2011 GPU, as well as the County's Otay Ranch Resource Management Plan (RMP), all designate PV1, PV2, and PV3 as development, and identify them as zoned for residential uses (i.e., "Village Residential").

On June 26, 2019, the County Board approved the Approved Project, certified its Final EIR, and adopted the BMO consistency findings – all of which contemplated development of PV1, PV2, and PV3 as part of the overall project.

The Multiple Species Conservation Program (MSCP) County of San Diego Subarea Plan (MSCP County Subarea Plan) Implementing Agreement between the County and the Wildlife Agencies, Section 10.5.A.2, Assembly and Protection of the MSCP Plan Open Space Preserve – Application of Mitigation to Development, states, "The County shall require the following mitigation in order to complete the segments of the Subarea Plan. . . . Protection of the areas identified as preserved in the boundaries of the Otay Ranch project including approximately 11,375 acres and an additional approximate 1,166 acres of limited development areas" (USFWS et al. 1998). Exhibit 24 of the Otay Ranch RMP identifies the 11,375 acres of Preserve that is referenced in Section 10.5.2 of the Implementing Agreement. PV1, PV2, and PV3 are not included in the 11,375-acre Otay Ranch RMP Preserve (City of Chula Vista and County of San Diego 1996). As discussed further in Section 1.3 (Biological Mitigation Ordinance Purpose and Need as Related to the Proposed Project Amendment) and Section 2.1 (Biological Mitigation Ordinance Sections 86.502, 86.503, and 86.504), PV1, PV2, and PV3 are shown on the MSCP Boundary Map (Attachment A of Document No. 0769999 on file with the clerk of the Board) but are not exempt from the BMO (Attachment B of Document No. 0769999) (County of San Diego 2010).

1.3 Biological Mitigation Ordinance Purpose and Need as Related to the Proposed Project Amendment

Section 86.502, Application of Regulations, of the BMO states that, unless exempt, the BMO "shall apply to all land within San Diego County shown on the MSCP Boundary Map (Attachment A of Document No. 0769999 on file with the Clerk of the Board)" (County of San Diego 2010). Section 86.503 outlines instances when an exemption applies from the BMO requirements. Subsection (a)(4) provides an exemption for "any Take Authorization Area approved by the Board of Supervisors and the Wildlife Agencies as part of the County Subarea Plan, as shown on Attachment B of Document No. 0769999 on file with the Clerk of the Board or any approved Habitat Loss Permit issued pursuant to 16 U.S.C. Sec. 1533(d)" (County of San Diego 2010, Section 86.503, Item a[4]). Section 86.503 of the BMO, Exemptions, identifies 11 criteria for exemptions. PV1, PV2, and PV3 do not qualify for any of these exemptions. In addition, Attachment B of the BMO shows the entire approved Otay Ranch GDP/SRP Development Footprint for the proposed Otay Ranch Village 14 and Planning Areas 16/19 Project (Proposed Project), with the exception of PV1, PV2, and PV3, as exempt from the BMO (County of San Diego 2010).

The DRA described above sets in motion various processes which, if completed successfully, could lead to the County's adoption of the Proposed Project Amendment. As currently contemplated, the Proposed Project Amendment would require incidental take authorization for development on PV2 and a small portion of PV3. Such take authorization would be secured through the County MSCP Subarea Plan and the County's existing Section 10(a) permit.[1] To accomplish this goal, the County must make findings demonstrating that the development activities contemplated on PV2 and the identified portion of PV3 conform to the BMO criteria.

Accordingly, this BMO findings report analyzes the Proposed Project Amendment's contemplated development activities on PV2 and the identified portion of PV3 and determines whether such activities are consistent with the requirements of the BMO.

1.4 Summary of Biological Mitigation Ordinance Findings Report

This BMO Findings Report evaluates the Proposed Project Amendment's development impacts on all of PV2 and a small portion of PV3 within Village 14, pursuant to the requirements of the County's BMO. The areas evaluated are as follows:

- PV2 is composed of approximately 44.6 acres and was originally designated for L2 (i.e., low-density residential) development under the Otay Ranch GDP/SRP and as Specific Plan Area in the County's General Plan.
- PV3 is composed of approximately 134.5 acres and was originally designated for LM2 and LM3 development (i.e., low-medium density residential) under the Otay Ranch GDP/SRP and as Specific Plan Area in the County's General Plan. The Proposed Project Amendment proposes development within a small portion of PV3 (6.1 acres) for construction of a basin and realignment of Proctor Valley Road.
- Thus, of the 198 acres that comprise PV1, PV2, and PV3 – all of which was assessed in the BMO findings adopted by the County on June 26, 2019, as part of the Approved Project – the Proposed Project Amendment would affect only 50.7 acres (approximately 25%). This BMO Findings Report focuses only on those 50.7 acres.

This analysis does not apply the County's BMO requirements to other areas of Village 14 because these areas are explicitly exempt pursuant to Section 86.503(a)(4) of the BMO (County of San Diego 2010.). Although this BMO Findings Report references Village 14 and the Proposed Project Amendment as a whole, the discussion is only to provide context for the BMO findings of PV2 and a portion of PV3.

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

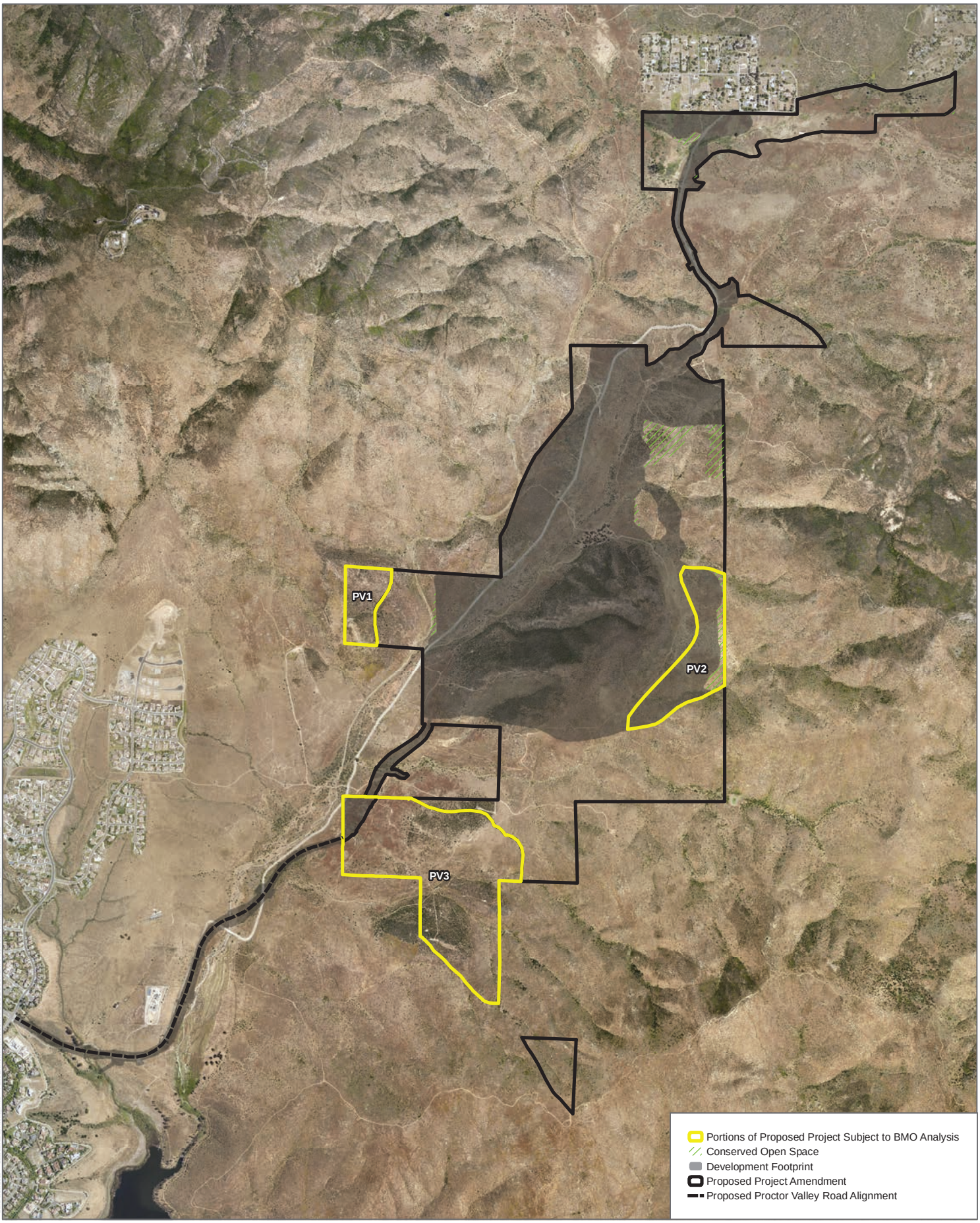
[1] PV1 and the remainder of PV3 are not a part of the Proposed Project Amendment; therefore, they do not require take authorization and thus are not analyzed in this document.

Note the following facts:

- PV2 and PV3 are not shown within the MSCP Preserve boundary as designated in the County of San Diego MSCP Subarea Plan Implementing Agreement.
- The 11,375-acre Otay Ranch RMP Preserve footprint, which is a component of the MSCP Preserve, would not be changed.
- The impacts resulting from development of PV2 and a portion of PV3 would be mitigated by conveying habitat to the Otay Ranch RMP Preserve, along with any additional habitat and species-specific mitigation identified in this BMO Findings Report; findings would be provided.
- The Otay Ranch Preserve Owner/Manager (POM) would manage and maintain the Otay Ranch RMP Preserve. The applicant would be required to establish a funding mechanism for the management and maintenance of dedicated Preserve areas. The Preserve conveyance requirement serves to mitigate throughout the Otay Ranch Preserve and, therefore, enables the Otay Ranch RMP Preserve system designed for Otay Ranch to be assembled and conveyed to the Otay Ranch POM to be managed by one entity regardless of ownership.
- The Preserve Edge Plan requirements would provide a buffer between the Otay Ranch RMP Preserve and development in PV2 and PV3.
- 6.2 acres of Conserved Open Space would be preserved within PV2 and would either be conveyed into the Otay Ranch RMP Preserve at a future date or self-managed under a separate RMP. This is in addition to the Otay Ranch RMP Preserve Conveyance Obligation.

18.9 acres of PV1 and 128.4 acres of PV3 are currently in the Wildlife Conservation Board process as part of a land exchange. These parcels are proposed to be transferred in fee title to CDFW and, if the transfer is approved by the Wildlife Conservation Board and escrow closes, they will not be developed. Instead, they will be placed into permanent MSCP Preserve via an amendment to the MSCP Subarea Plan initiated by the County. These lands, which will be owned and managed by CDFW, are not currently Preserve lands. They are located immediately adjacent to other Preserve lands, and therefore incorporation of these lands to the Preserve through the land exchange creates a larger interconnected Preserve system.

It is important to note that the BMO criteria below focuses on PV2 and a small portion of PV3, which together total 50.7 acres. However, the particular concepts of clustering (as discussed in Section 2.2.2) and Preserve design (as discussed in Section 2.2.5) provide additional habitat protection benefits that would be enhanced through implementation of the of the DRA processes. With respect to those processes, the DRA requires that the proposed land exchange be approved by the Wildlife Conservation Board, the Proposed Project Amendment be approved by the County, and the amendment to the County's Subarea Plan be approved by the County with concurrence from CDFW and USFWS. If all of these approvals are obtained, the result would be an overall reduced development footprint (311.6 acres), which consolidates/connects preserve and consolidates/clusters development on a much larger scale (see Figure 2, Project Area).



SOURCE: SANGIS 2017; Hunsaker 2019

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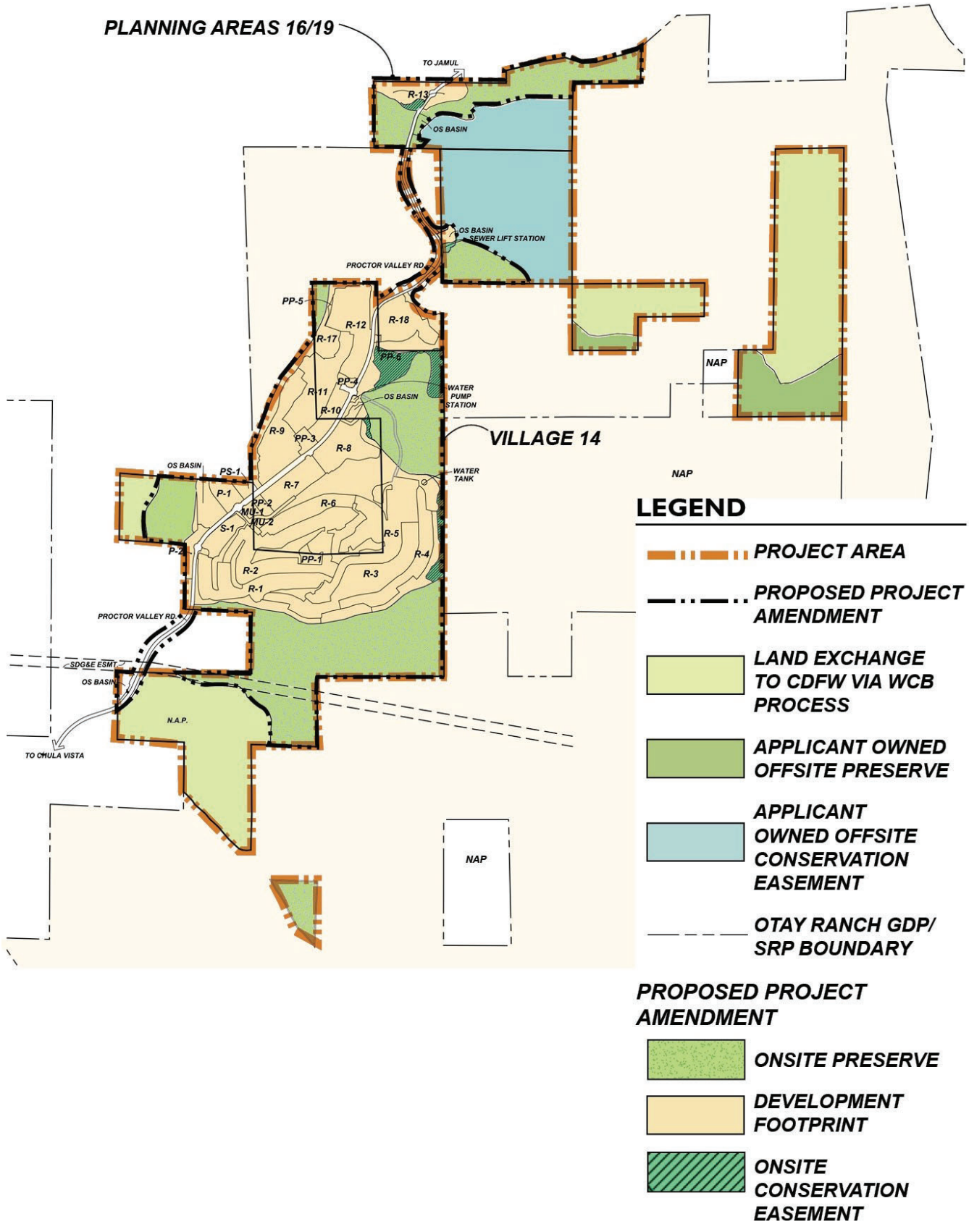
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FIGURE 1

Otay Ranch Village 14 and Planning Areas 16/19

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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SOURCE: Hunsaker 2019

FIGURE **2**

Project Area

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2 Biological Mitigation Ordinance Analysis and Findings as Applied to the Proposed Project Amendment

As discussed below, the Proposed Project Amendment's contemplated development on PV2 and a portion of PV3 conforms to the BMO and the County of San Diego MSCP Subarea Plan Implementing Agreement, as discussed in this analysis.

The Final EIR certified by the County Board of Supervisors on June 26, 2019, analyzed the Approved Project's impacts on biological resources, including those anticipated to occur within PV1, PV2, and PV3, and recommended mitigation measures to address those impacts identified as significant (County of San Diego 2019). This revised BMO Findings Report, however, is limited to the Proposed Project Amendment and its contemplated impacts on PV2 (38.4 acres) and a small portion of PV3 (6.1 acres). Because the Proposed Project Amendment does not contemplate development on PV1, it is not discussed in this document.

Table 1 summarizes the impacts and required mitigation for Tier II and Tier III vegetation communities within PV2 and PV3. Attachment K of the BMO outlines the tier levels for vegetation communities (County of San Diego 2010). The mitigation requirements in Attachment M of the BMO are based on those tier levels and the locations of the impacts and mitigation sites. The BMO does not outline mitigation ratios for impacts to waters or streambeds. These resources are regulated by the Resource Agencies (i.e., U.S. Army Corps of Engineers [ACOE], Regional Water Quality Control Board [RWQCB], and CDFW), and would be fully addressed and mitigated during the permitting process with input and direction from the Resource Agencies. Impacts to sensitive wildlife would be mitigated through habitat conveyance; however, the Proposed Project would also implement specific mitigation measures to address impacts to coastal California gnatcatcher (*Polioptila californica californica*). Impacts to sensitive plant species would be mitigated through habitat conveyance; however, the Proposed Project Amendment would implement additional mitigation to address impacts to San Diego marsh-elder (*Iva hayesiana*).

Table 1 Mitigation Requirements for Impacts to Tier II and III Habitats within PV2 and a Portion of PV3

Habitat Types/ Vegetation Communities	Code[a]	Impacts PV2 and PV3	Required Mitigation – BRCA		Preservation	
			Mitigation Ratio	*Required Mitigation*	*On-Site PV2*	*Otay Ranch RMP Preserve[b]*
Tier II						
Diegan coastal sage scrub	32500	37.2	1.5:1	55.8	6.2	49.6
Diegan coastal sage scrub (disturbed)	32500	4.8	1.5:1	7.2	—	7.2
Subtotal of Tier II Habitats[c]		*42.0*	—	*63.0*	*6.2*	*56.8*
Tier III						
Non-native grassland	42200	0.8	1:1	0.8	—	0.8
Subtotal of Tier III Habitats		*0.8*	*1:1*	*0.8*	—	*0.8*

Table 1 Mitigation Requirements for Impacts to Tier II and III Habitats within PV2 and a Portion of PV3

Habitat Types/ Vegetation Communities	Code[a]	Impacts PV2 and PV3	Required Mitigation – BRCA		Preservation	
			Mitigation Ratio	*Required Mitigation*	*On-Site PV2*	*Otay Ranch RMP Preserve[b]*
Total for Tier II and III Habitats[c]		**42.8**	**—**	**63.8**	**6.2**	**57.6**
Jurisdictional Aquatic Resources						
Waters/streambed[d]	64200	0.05	1:1	0.05	0.01	0.04
Subtotal of Jurisdictional Aquatic Resources[c]		0.05	—	0.05	0.01	0.04

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

2.1 Biological Mitigation Ordinance Sections 86.502, 86.503, and 86.504

Section 86.502 of the BMO states that, unless exempt, the BMO "shall apply to all land within San Diego County shown on the MSCP Boundary Map (Attachment A of Document No. 0769999 on file with the Clerk of the Board)." The BMO applies upon application for a discretionary approval subject to the California Environmental Quality Act, and no project requiring a discretionary permit "shall be approved unless a finding is made that the project is consistent with the MSCP Plan, the County Subarea Plan, and the provisions of [the BMO]" (County of San Diego 2010).

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

However, two areas within Village 14, PV2 and PV3, are not exempt from the BMO as specifically as set forth in Section 86.503(a)(4), Attachment B of the BMO (Document No. 0769999 on file with the Clerk of the Board). Therefore, a BMO consistency analysis was conducted for all of PV2 (44.6 acres) and a small portion of PV3 (6.1 acres) that would be affected by the Proposed Project Amendment. For projects not exempt from the BMO, Section 86.504, Administrative Process and Evaluations, outlines the requirements for submitting an environmental Initial Study pursuant to the San Diego County California Environmental Quality Act Guidelines. When it was processing what became the Approved Project, the applicant submitted an Initial Study for County review. Later, the applicant submitted to the County a Biological Resources Technical Report containing all relevant biological studies. The Biological Resources Technical Report and the studies cited therein were later incorporated into the Final EIR for the Approved Project, which assessed all project-related biological impacts, including those contemplated to occur within PV1, PV2, and PV3 (County of San Diego 2019).

Since approval of the Approved Project (June 26, 2019), the project applicant, the County, USFWS, and CDFW have entered into a DRA, which, among other things, contemplates that the applicant will process a Revised Tentative Map for the Proposed Project Amendment. A Biological Resources Technical Report Memorandum has been prepared to provide a summary of the biological resources and impacts on those resources specific to the Proposed Project Amendment. Therefore, the requirements of this section have been fulfilled.

2.2 Biological Mitigation Ordinance Section 86.505 – Project Design Criteria

Section 86.505 of the County's BMO (County of San Diego 2010) describes five design criteria that should be used to avoid and minimize impacts to the following resources: (1) critical populations of sensitive plant species within the MSCP Subarea (Attachment C of the BMO); (2) significant populations of rare, narrow endemic animal species within the MSCP Subarea (Attachment D of the BMO); (3) narrow endemic plant species within the MSCP Subarea (Attachment E of the BMO); (4) San Diego County sensitive plants, as defined in the County's BMO; and (5) impacts to land determined to be a Biological Resource Core Area (BRCA). These five design criteria as they apply to PV2 and PV3 are described in Sections 2.2.1 through 2.2.5 herein, and include minimization of Proposed Project Amendment impacts, clustering of development, slope encroachment, road standards, and Preserve design.

2.2.1 Criterion 1 – Minimization of Impacts to Habitat

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

Discussion Specific to PV2 and PV3: Development of the 50.7 acres within PV2 and PV3 would result in impacts to 42.8 acres of Tier II and III upland vegetation communities and 0.05 acres of impacts to waters/streambed regulated by the Resource Agencies (see Table 2 and Figure 3, Biological Resources). Within PV2, the Proposed Project Amendment would preserve 6.2 acres of land currently designated as low-density residential development within the Otay Ranch GDP/SRP as Conserved Open Space. Areas of Conserved Open Space would be protected by a biological open space easement or conveyed to the Otay Ranch RMP Preserve. The land designation of areas of Conserved Open Space would not be changed from development to Otay Ranch RMP Preserve unless the decision is made to convey the land to the Otay Ranch POM through the boundary adjustment process. The Conserved Open Space within PV2, which is designated for development under the Otay Ranch GDP/SRP and County General Plan, is located along the eastern edge of development and the Preserve boundary. Development in this area of PV2 is proposed to be eliminated to minimize impacts to Tier II Diegan coastal sage scrub immediately adjacent to MSCP Preserve owned by the Bureau of Land Management (Table 2; Figure 3).

This portion of the Proposed Project Amendment area was chosen as Conserved Open Space because it is adjacent to the Otay Ranch RMP Preserve, is composed principally of Tier II coastal sage habitat, includes habitat for coastal California gnatcatcher, and include steep slopes. Although the BMO allows for encroachment into steep slopes if it reduces impacts to biological resources, within the boundaries of PV2, development within steep slopes would result in further impacts to sensitive biological resources, as discussed in Section 2.2.3, Criterion 3 – Slope Encroachment.

In addition, development of PV2 was designed to include a 100-foot Preserve edge, providing a buffer between the Proposed Project Amendment's Development Footprint and the Otay Ranch RMP Preserve. The 100-foot buffer requirements are described in detail in the Preserve Edge Plan for the Proposed Project Amendment (RH Consulting Group et al. 2019). Within the Development Footprint of PV2, approximately 26%, or 9.9 acres, is included within the 100-foot Preserve edge buffer. Development of the road and basin within PV3 would not require a Preserve edge buffer.

Further reduction in the Development Footprint of PV2 would limit the ability of the Proposed Project Amendment to achieve the density and land use policies set forth in the County's General Plan and the Otay Ranch GDP/SRP. Density transfer to other areas of Village 14 is not feasible because it would increase the density and reduce lot sizes beyond what is allowed in the Otay Ranch GDP/SRP and the County's General Plan, and would result in inconsistencies in achieving the guiding principles and goals outlined in both of these regulatory documents. The BMO allows for mitigation off site for impacts to habitat that cannot be avoided on site. Development within PV3 is restricted to realignment of Proctor Valley Road and construction of a basin along the road, resulting in 6.1 acres of impact. The remaining 128.4 acres of PV3 are anticipated to be exchanged to CDFW and placed within the MSCP Preserve if the Wildlife Conservation Board land exchange process results in close of escrow.

Table 2 Vegetation Communities and Land Cover Types in PV2 and a Portion of PV3

Habitat Types/Vegetation Communities (Code[a])	PV2		PV3	Total Acres
	Development Footprint (acres)	*Conserved Open Space (acres)*	*Development Footprint (acres)*	
Diegan Coastal Sage Scrub (32500)	37.2	6.2	—	43.4
Diegan Coastal Sage Scrub; Disturbed (32500)	—	—	4.8	4.8
Subtotal of Tier II Habitats	*37.2*	*6.2*	*4.8*	*48.2*
Non-Native Grassland (42200)	0.8	—	—	0.8
Subtotal of Tier III Habitats	*0.8*	—	—	*0.8*
Subtotal for Tier II and Tier III Habitats	*38.0*	*6.2*	*4.8*	*49.0*
Disturbed Habitat (11300)	0.4	<0.1	1.1	1.5
Urban/Developed (12000)	—	—	0.1	0.1
Subtotal of Tier IV Habitats	*0.4*	*<0.1*	*1.2*	*1.6*
Subtotal Habitats	*38.4*	*6.2*	*6.1*	*50.7*
Totals[b]	**44.6**		**6.1**	**50.7**
Waters/Streambed	0.05	0.01	—	0.05
Subtotal of Jurisdictional Aquatic Resources[c]	*0.05*	*0.01*	—	*0.06*

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

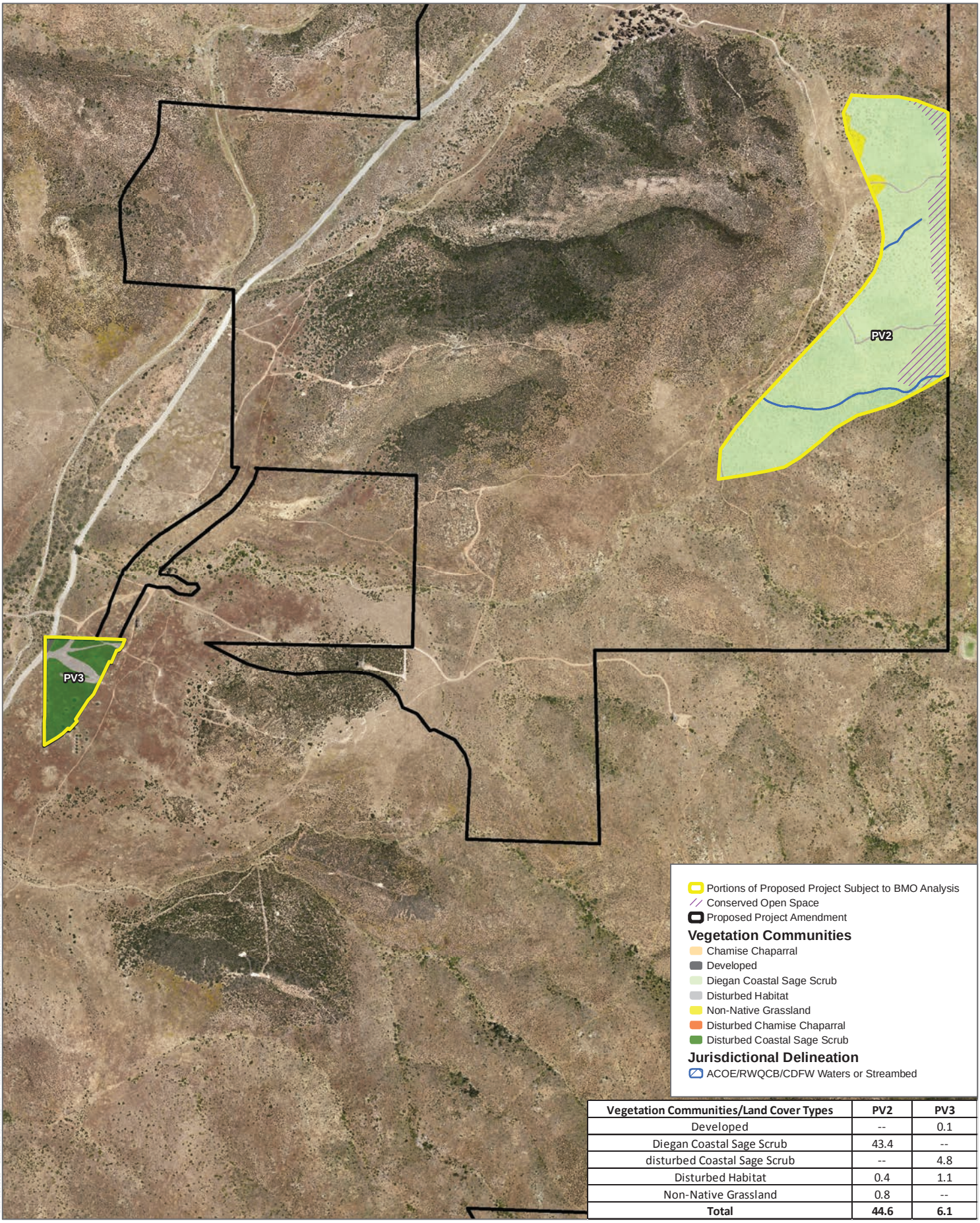
Discussion in the Context of the Otay Ranch RMP Preserve: Impacts to biological resources within PV2 and PV3 were identified and analyzed in conjunction with the original Otay Ranch GDP/SRP approval, including the Otay Ranch PEIR (City of Chula Vista and County of San Diego 1993a). The County designated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

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

Analyzing the region, the Otay Ranch GDP/SRP and related environmental documents designated 5,517.2 acres of the 7,895.0-acre Otay Ranch Proctor Valley Parcel as Otay Ranch RMP Preserve. The Village 14 Development Footprint was generally sited to minimize impacts to the highest-value resource areas in the Otay Ranch GDP/SRP. As described in detail herein, the Development Footprint for PV2 and PV3 would not impact the highest-value resource areas, and impacts to biological resources would be further minimized with an additional 6.2 acres in PV2 and 128.4 acres in PV3 conserved beyond what was anticipated by the Otay Ranch GDP/SRP and the Otay Ranch RMP, and implementation of the 100-foot Preserve edge buffer.

Findings: Based on the discussion above, the Proposed Project Amendment would minimize impacts to habitat because an additional 6.2 acres of habitat that is designated for development under the Otay Ranch GDP/SRP within PV2 would be preserved in Conserved Open Space areas, avoiding impacts to sensitive coastal sage scrub habitat and habitat for coastal California gnatcatcher, and providing more Preserve/development buffer; PV2 would pull development back 100 feet from the edge of any interface with the Otay Ranch RMP Preserve, creating a 9.9-acre undevelopable buffer; and, pursuant to the original Otay Ranch GDP/SRP and Otay Ranch RMP approvals, on a subregional level, development areas in Otay Ranch, including PV2 and PV3, were located in areas designed to minimize impacts to habitat, while the more sensitive/higher-priority habitat was included in the 11,375-acre Otay Ranch RMP Preserve. Development in PV2 was sited to minimize impacts to habitat. By providing additional preservation of 6.2 acres of habitat beyond what was originally identified within the Otay Ranch GDP/SRP and Otay Ranch RMP approvals, the proposed development within PV2 would be in conformance with this criterion. Impacts to habitat that are not avoided within PV2 and PV3 would be mitigated through conveyance of acreage to the Otay Ranch RMP Preserve, which is a component of the MSCP Preserve, and through additional BMO requirements (see Section 2.3, Section 86.506 – Habitat-Based Mitigation).

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Vegetation Communities/Land Cover Types	PV2	PV3
Developed	--	0.1
Diegan Coastal Sage Scrub	43.4	--
disturbed Coastal Sage Scrub	--	4.8
Disturbed Habitat	0.4	1.1
Non-Native Grassland	0.8	--
Total	**44.6**	**6.1**

SOURCE: SANGIS 2017; Hunsaker 2019

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0 462.5 925 Feet

FIGURE **3**

Biological Resources

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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2.2.2 Criterion 2 – Clustering of Development

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

Discussion Specific to PV2 and PV3: PV2 and PV3 have been reviewed in conjunction with this BMO Findings Report to determine if additional clustering within those boundaries was feasible.

PV2 is located adjacent to Otay Ranch GDP/SRP–designated development for Village 14 and has similar planned densities. The eastern edge of PV2's Development Footprint has been pulled back (i.e., the area adjacent to the Otay Ranch RMP Preserve and Bureau of Land Management land) to create a 6.2-acre area of Conserved Open Space. The Conserved Open Space would have a permanent open space easement recorded against it, ensuring it would not be developed. In addition, the 100-foot Preserve edge buffer between development and the Otay Ranch RMP Preserve around PV2 comprises 9.9 acres of the 38.4-acre Development Footprint in PV2 (26%).

Within PV3, development is restricted to a basin and the realignment of Proctor Valley Road (6.1 acres of the entire 134.5-acre parcel). The Proposed Project Amendment would relocate the existing Proctor Valley Road, an approved MSCP County Subarea Plan Mobility Element facility, onto PV3 to avoid potential impacts to vernal pools and fairy shrimp areas within the City of San Diego MSCP Cornerstone Lands. The remainder of PV3 would be preserved and managed by CDFW.

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

Findings: Clustering of development to the maximum extent permitted by County regulations has been considered. PV2 clusters residential lots to the extent feasible under existing Otay Ranch GDP/SRP land use designations of Low Density Residential (L) The Conserved Open Space and the 100-foot Preserve edge buffer would reduce the Development Footprint within PV2 by 9.9 acres (a 26% reduction). It is not feasible to further cluster development and still meet land use designations. Should the Wildlife Conservation Board land exchange process results in a close of escrow, development within PV3 would be reduced by 96% and would be focused toward the center of Village 14, resulting in additional clustering. Therefore, the proposed development within PV2 and PV3 would be in conformance with this criterion.

2.2.3 Criterion 3 – Slope Encroachment

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

Discussion: The Otay Ranch RMP is deemed the functional equivalent of the County Resource Protection Ordinance (County of San Diego 2007) for Otay Ranch (City of Chula Vista and County of San Diego 1996, p. P-1). Otay Ranch projects are exempt from the provisions of the Resource Protection Ordinance "if determined to be consistent with

a Comprehensive Resource Management and Protection program which has been adopted by the Board of Supervisors for the 'Otay Ranch'" (i.e., the Otay Ranch RMP) (City of Chula Vista and County of San Diego 1996, p. P-1; Resource Protection Ordinance Article V, Section 9 [County of San Diego 2007]).

Development of PV2 would avoid approximately 4 acres of allocated Otay Ranch RMP steep slope impacts, and would be consistent with the Otay Ranch RMP steep slope requirements. Since the majority of the vegetation within PV2 would be considered habitat for special-status species (Table 2), encroachment into steep slopes would not help avoid impacts to habitat. Encroachment into the steep slopes within areas designated as Conserved Open Space would not avoid impacts to habitat because these areas are composed of coastal sage scrub habitat. Thus, encroachment into steep slopes would result in additional impacts to biological resources.

Findings: Encroachment into steep slopes beyond the proposed Development Footprint would not avoid impacts. The steep slopes within the Conserved Open Space contain coastal sage scrub. Development within PV2 would not impact steep slopes beyond what was anticipated by the Otay Ranch RMP because doing so would not avoid impacts to habitat. The proposed development within PV2 would be in conformance with this criterion.

2.2.4 Criterion 4 – Road Standards

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

Discussion: The Otay Ranch GDP/SRP designated Proctor Valley Road as a four-lane major roadway. The County downsized Proctor Valley Road from four lanes to two lanes in its 2011 General Plan Update (County of San Diego 2011). The June 26, 2019, Approved Project's General Plan Amendment (GPA) designated Proctor Valley Road as a two-lane facility through PV3 consistent with the County's effort to downsize the road. Included in the June 26, 2019, amendment to the Otay Ranch GDP/SRP was a reclassification of Proctor Valley Road to a two-lane light collector within Otay Ranch Village 14 and north to Jamul. Amending the Otay Ranch GDP/SRP to reclassify Proctor Valley Road as a two-lane road would minimize environmental impacts, as discussed in the Final EIR and associated Biological Resources Technical Report for the Approved Project. In addition, the June 26, 2019, GPA realigned Proctor Valley Road into PV3 to avoid impacts to the City of San Diego MSCP Cornerstone Lands.

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

Findings: As discussed previously, the County has considered reduction in road standards to the maximum extent consistent with public safety considerations. The Proposed Project Amendment is consistent with the June 26, 2019, GPA, which reduced Proctor Valley Road to a two-lane facility through PV3, consistent with the County's effort to downsize the road. This design criterion is met because Proctor Valley Road has previously been reduced in width, and further reductions in internal road standards are not feasible due to public safety issues.

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

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

2.2.5.1 Preserve Design Criteria (Attachment G)

This section provides the Preserve Design Criteria, as outlined in Attachment G of the BMO (County of San Diego 2010), and analyzes whether PV2 and PV3 conform to those criteria.

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

   Discussion: Development of PV2 would result in the loss of 0.05 acres of unvegetated stream channel. There are no jurisdictional resources within PV3. The following mitigation would ensure that PV2 would result in no net loss of jurisdictional resources, as required by the Otay Ranch RMP:

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

   Findings: The Otay Ranch GDP/SRP is exempt from the Resource Protection Ordinance and is instead regulated by the Otay Ranch RMP, which requires no net loss of wetlands (Policy 2.10). Development of PV2 would result in the loss of 0.05 acres of unvegetated stream channel within the jurisdiction of ACOE, RWQCB, and CDFW. This impact would be mitigated at the minimum of 1:1 impact-to-creation ratio set forth in the Otay Ranch RMP. Therefore, the no-net-loss standards of the Otay Ranch RMP and the BMO would be met.

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

   Discussion Specific to PV2 and PV3: PV2 and the portion of PV3 proposed for development are composed of habitats found throughout the Otay Ranch RMP Preserve and Proctor Valley Parcel, as well as other conserved land within the MSCP Preserve. Although PV2 and PV3 contain sensitive habitat, the parcels do not support unique habitats not otherwise found within the region. PV2 and PV3 are not identified as Preserve in the Otay Ranch GDP/SRP, the County General Plan, or the MSCP County Subarea Plan. Impacts to habitat within PV2

and PV3 would be mitigated through conveyance habitat within the Otay Ranch RMP Preserve (see Section 2.3), which is a component of the MSCP Preserve. The habitat conveyed to the Otay Ranch RMP Preserve is anticipated to be similar to, or of higher quality than, the habitat being impacted. If feasible, an area that is structurally diverse and includes unique habitats and habitat features would be selected for mitigation.

Provided the processes outlined in the DRA are completed successfully, including the Wildlife Conservation Board's approval of the proposed land exchange, the majority of PV3 (96%) would be preserved per the property transfer between CDFW and the Proposed Project Amendment applicant, and development would be clustered in Village 14. Under the Proposed Project Amendment, the only development within PV3, consisting of 6.1 acres, would be associated with construction of a basin and realignment of Proctor Valley Road.

In addition, 6.2 acres of habitat would be conserved in PV2. These 6.2 acres would be designated as Conserved Open Space, and a permanent open space easement would be recorded or the land would be conveyed to the Otay Ranch RMP Preserve. All 6.2 acres of Conserved Open Space would consist of native coastal sage scrub vegetation with a very small area of disturbed habitat. As discussed previously in this BMO Findings Report, the 6.2 acres of Conserved Open Space would include habitat for coastal California gnatcatcher and is contiguous to MSCP Preserve, which contains high habitat structural diversity and unique habitats and features.

The Conserved Open Space in PV2 would include 0.1 acres of Hermes copper butterfly (*Lycaena hermes*) survey areas[2] (Figure 4, Hermes Copper Survey Area) and a population of Quino checkerspot butterfly (*Euphydryas editha quino*) host plant (dwarf plantain [*Plantago erecta*] and woolly plantain [*P. patagonica*]), as well as 6.2 acres of suitable habitat for Quino checkerspot butterfly (Figure 5, Quino Checkerspot Butterfly Host Plants). In addition, the Conserved Open Space would include 0.01 acres of waters/streambed. As previously discussed, the Otay Ranch GDP/SRP designated these areas for development – a designation that was reconfirmed when the County approved the 2011 GPU and again when the County approved the Approved Project on June 26, 2019. In addition, the Otay Ranch RMP Preserve lands and Conserved Open Space within the Proposed Project Amendment area and the R14 Conservation Easement include 1.93 acres of Quino checkerspot butterfly host plant and 9.2 acres of Hermes copper butterfly host plant. Approximately 1.87 acres of stream channel within the Proposed Project Amendment area either would remain un-impacted and be conveyed to the Otay Ranch RMP Preserve, or would be restored to pre-project conditions.

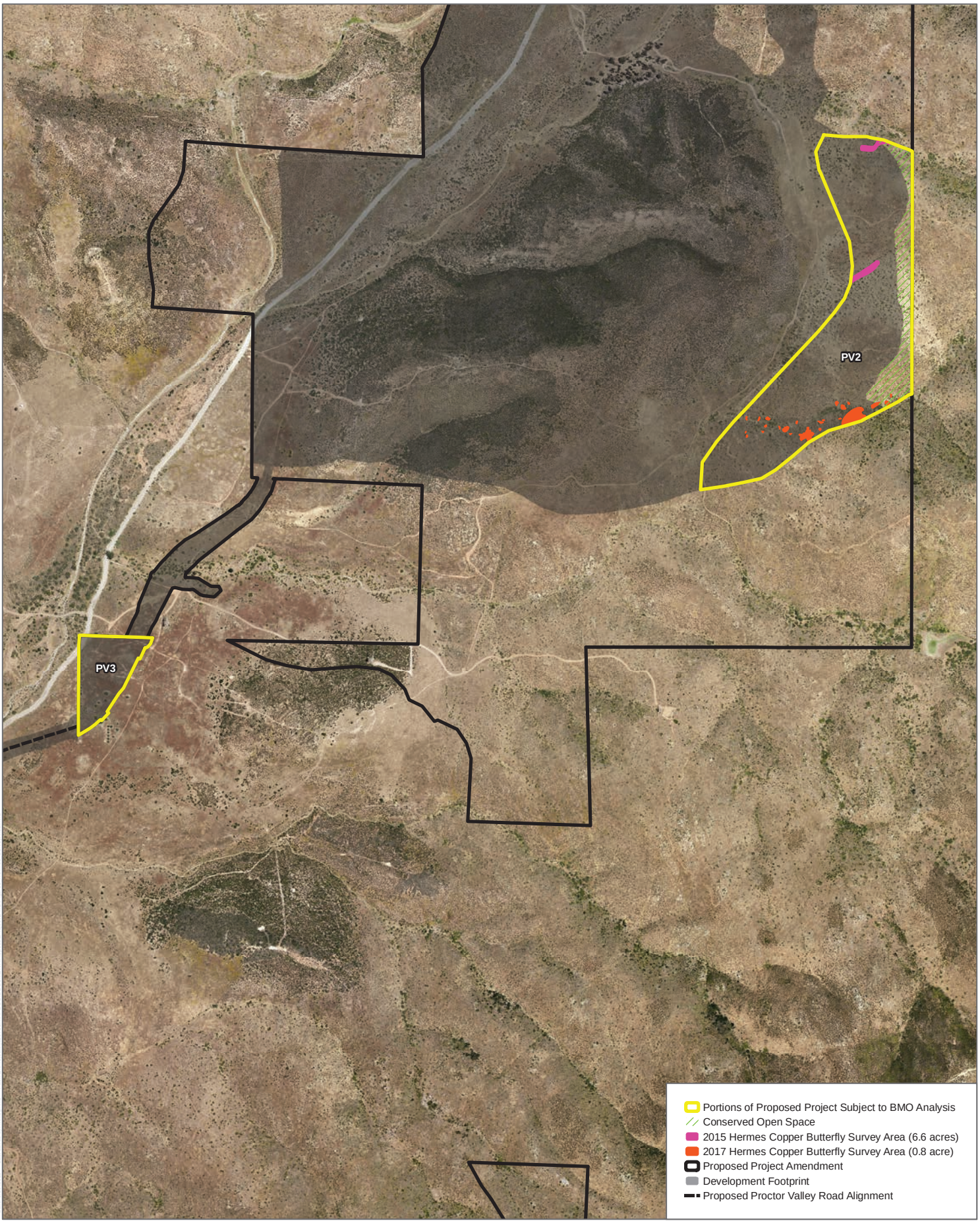
Discussion in the Context of the Otay Ranch RMP: After years of extensive analysis, the County and the City of Chula Vista approved the Otay Ranch GDP/SRP and Otay Ranch RMP and, in so doing, designated development areas and Otay Ranch RMP Preserve areas. During the Otay Ranch PEIR analysis, and prior to the County's and the City of Chula Vista's approval of the Otay Ranch GDP/SRP and Otay Ranch RMP, more than seven alternative land plans were considered for the Proctor Valley Parcel, which includes PV2 and PV3, taking into consideration sensitive habitat and species, wildlife corridors, topography, surrounding land uses, and proposed circulation systems. Impacts to biological resources and mitigation for those impacts were analyzed extensively during the Otay Ranch GDP/SRP planning of the Proposed Project to maximize the structural habitat diversity of conserved areas; conserve unique habitats and habitat features; and ensure that efforts were made to limit development, where feasible, to areas with the least-sensitive habitat. The Proposed Project Amendment, including the proposed development within PV2 and a small portion of PV3, would not change the Otay Ranch RMP Preserve footprint. As previously stated, the

[2] The Hermes copper survey area includes locations of redberry buckthorn (*Rhamnus crocea*) within 15 feet of Eastern Mojave buckwheat (*Eriogonum fasciculatum*).

Otay Ranch RMP Preserve was designated to encompass the highest-value resource areas as Preserve land (County of San Diego 1997, p. 3-15). Per the requirements of the BMO, the impacts to habitat in PV2 and PV3 would be mitigated by using like kind or up-tiered habitat within the Otay Ranch RMP Preserve.

Findings: The Proposed Project Amendment would maximize habitat structural diversity of conserved areas by providing preservation of areas within PV2 that include a population of Quino checkerspot butterfly host plant and 6.2 acres of suitable habitat for this species, and 0.1 acres of Hermes copper butterfly host plant. In addition, the Conserved Open Space would include 0.01 acres of waters/streambed. These areas would have otherwise been developed under the Otay Ranch GDP/SRP and County General Plan. The Otay Ranch RMP Preserve essentially functions as Otay Ranch's mitigation bank, and possesses characteristics of high to very high habitat structural diversity and conservation of unique habitats and habitat features. Therefore, the proposed development within PV2 would be in conformance with this criterion.

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SOURCE: SANGIS 2017; Hunsaker 2019

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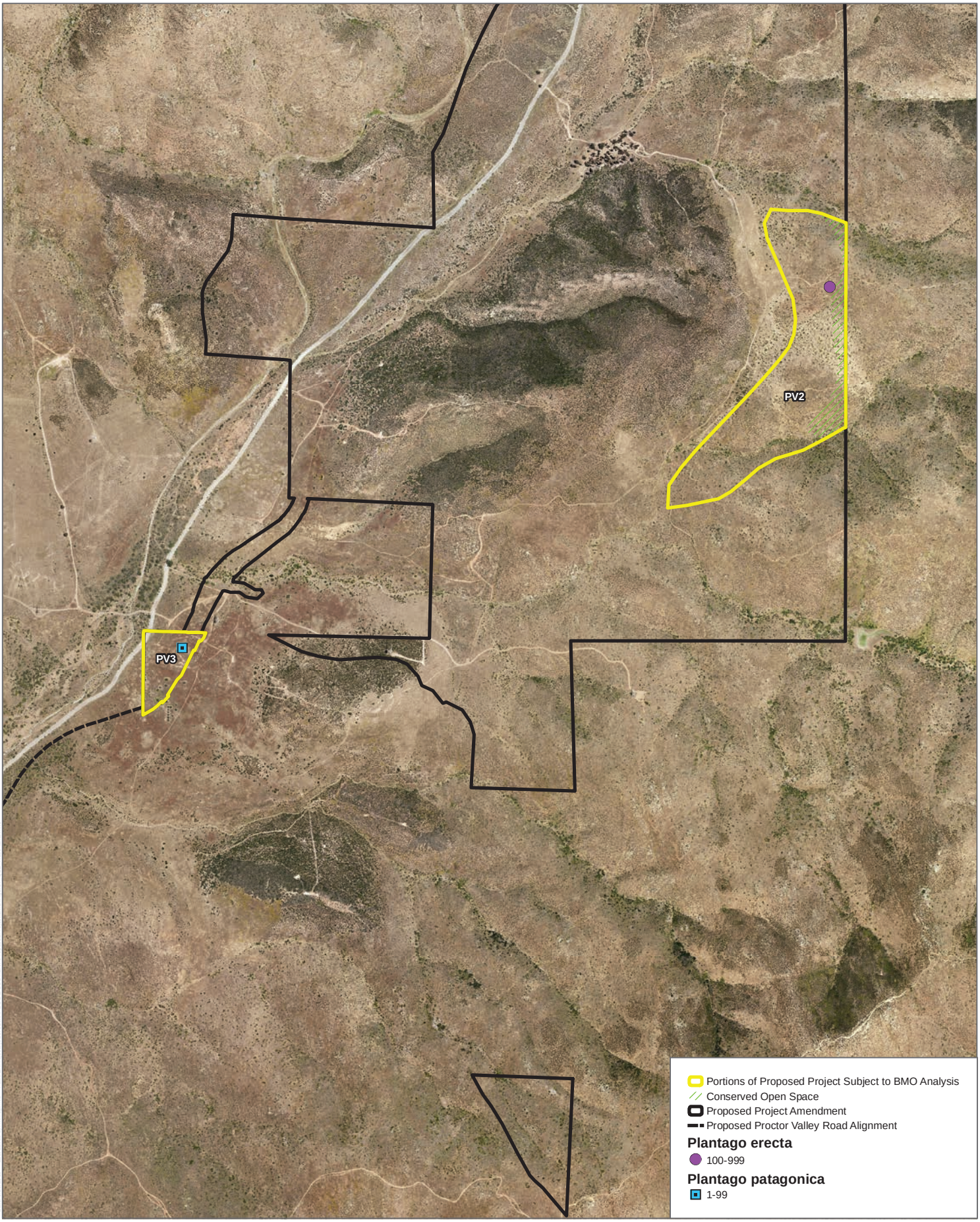
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FIGURE **4**

Hermes Copper Survey Area

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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SOURCE: SANGIS 2017; Hunsaker 2019; Helix 2016

DUDEK

0 550 1,100 Feet

FIGURE **5**

Quino Checkerspot Butterfly Host Plants

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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

   Discussion Specific to PV2 and PV3: Per Figure 4-1, Habitat Evaluation Model, of the MSCP County Subarea Plan (County of San Diego 1997), of the 44.6 acres within PV2, 21.2 acres is considered to have very high habitat value, 9.2 acres is considered to have high habitat value, and 14.3 acres is considered to have moderate habitat value (Figure 6, Habitat Evaluation Model). Within PV3, the 6.1 acres proposed for impact is considered to have very high habitat value. Proposed development within PV2 and PV3 would have impacts to 32 acres of coastal sage scrub categorized as high or very high habitat value, but would conserve 6.2 acres of coastal sage scrub that would otherwise be subject to development under the Otay Ranch GDP/SRP. The 6.2 acres of coastal sage scrub within Conserved Open Space is considered to have moderate to high habitat value.

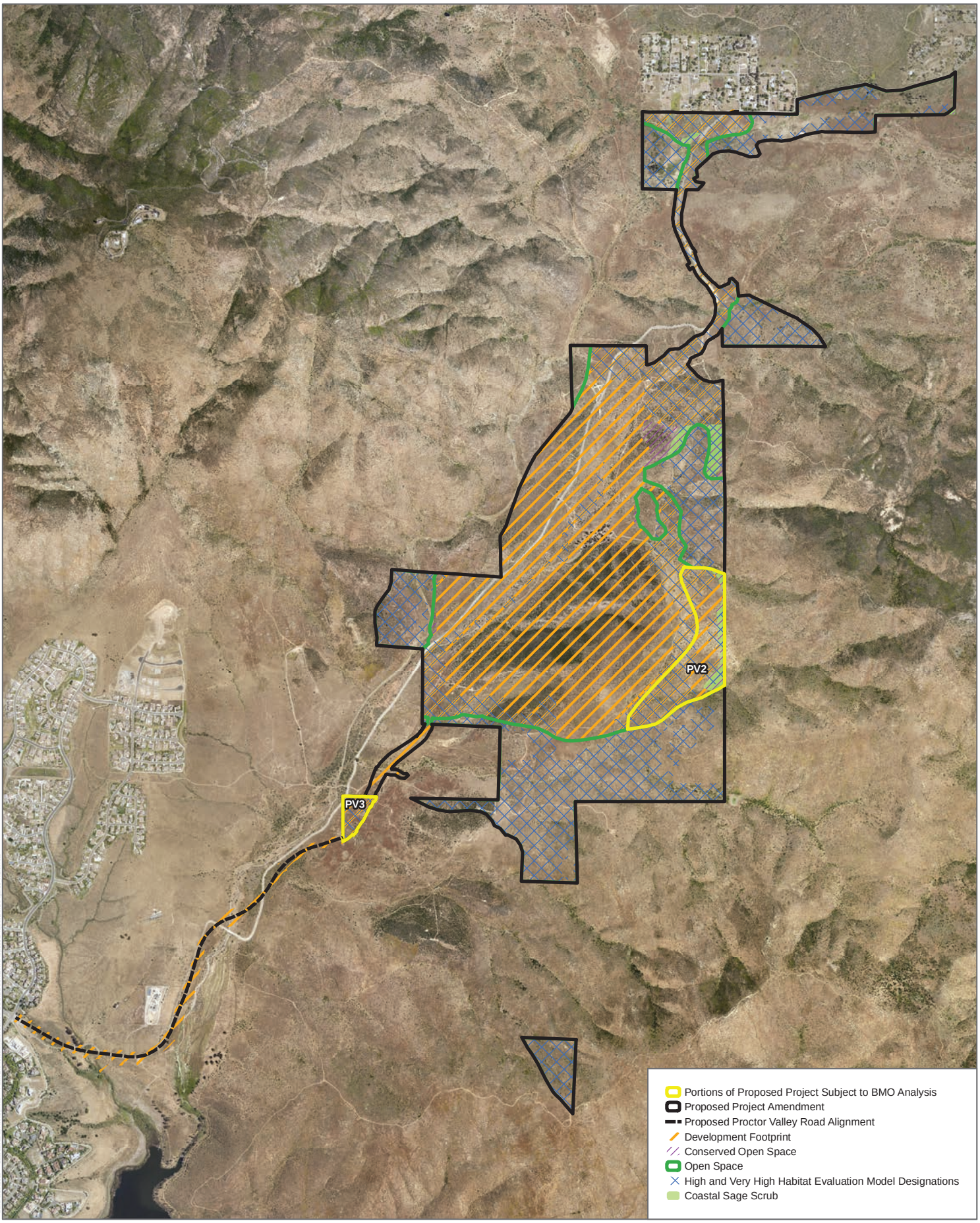
   Discussion in the Context of the Otay Ranch RMP Preserve: The overall mitigation requirements for the Proposed Project, including development on PV2 and PV3, are set forth in the conveyance obligation outlined in the Otay Ranch RMP. Pursuant to the Otay Ranch RMP Preserve Conveyance Obligation, the Proposed Project would convey 1.188 acres of Otay Ranch RMP Preserve for every 1 acre of Otay Ranch development, which may be satisfied with any acre of Otay Ranch RMP Preserve regardless of location, ownership, or habitat value. According to these requirements, the Proposed Project Amendment would be required to convey approximately 551.5 acres to the Otay Ranch RMP Preserve. For PV2 and PV3, conveyance would equal 52.4 acres, which would be conveyed to mitigate the impacts of the development (see Section 2.3).

   Beyond the mitigation requirements of the Otay Ranch RMP, the BMO mitigation ratios would require additional acreage to mitigate the impacts of development on PV2 and PV3 (see Section 2.3). The additional acres of mitigation would be located in either the on-site Otay Ranch RMP Preserve or the on-site Conserved Open Space areas, and would be like-kind (or up-tiered) habitat. For example, development of PV2 and PV3 would impact 42 acres of coastal sage scrub. Based on the BMO-required mitigation ratios, the mitigation requirement for PV2 and PV3 would be 63 acres of coastal sage scrub; however, because there are 6.2 acres of coastal sage scrub within Conserved Open Space in PV2, the remaining mitigation required is 56.8 acres. In the Proposed Project Amendment area, there is 415.9 acres of coastal sage scrub in the Otay Ranch RMP Preserve and R14 Conservation Easement area and an additional 14.7 acres of coastal sage scrub within Conserved Open Space, for a total of 430.6 acres. Therefore, there is more than sufficient like-kind habitat (430.6 acres) within the Proposed Project Amendment area to mitigate the coastal sage scrub impacts from development of PV2 and PV3. The majority of this like-kind habitat is of high to very high habitat value (212.1 acres [49%] is designated as very high habitat value and 84.3 acres [20%] is designated as high habitat value), with much of it found in large patches.

   Therefore, with the Otay Ranch RMP Preserve Conveyance Obligation requirements for impacts from development of PV2 and PV3, and additional mitigation required by the BMO mitigation ratios (see Section 2.3), the like-kind mitigation conveyed for impacts within PV2 and PV3 would provide for the conservation of spatially representative examples of extensive patches of coastal sage scrub and other habitat types that are ranked as having high and very high biological value by the MSCP County Subarea Plan habitat evaluation model.

   Findings: As discussed previously, impacts to coastal sage scrub and other sensitive habitat types within PV2 and PV3 would be mitigated through either conveyance management and funding of habitat within

the Otay Ranch RMP Preserve, or preservation and management of Conserved Open Space on site through a conservation program and long-term funding. This mitigation would provide for conservation of spatially representative, extensive patches of coastal sage scrub and other high and very high biological-value habitat. Preservation in PV2 would include 6.2 acres of Conserved Open Space, of which 3.8 acres is high/very high habitat value and contiguous to other areas considered to have high habitat value in the Otay Ranch RMP Preserve. As shown in Table 1, the 6.2 acres of Conserved Open Space helps to meet the habitat-based mitigation requirements of this BMO Findings. As stated previously, the Otay Ranch RMP Preserve is a component of the MSCP Preserve. Development of PV2 and PV3 would be consistent with this criterion.



SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK

0 1,100 2,200 Feet

FIGURE **6**

Habitat Evaluation Model

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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

   Discussion Specific to PV2 and PV3: The Approved Project included a Preserve Edge Plan, which the County Board adopted on June 26, 2019. That Preserve Edge Plan addressed development on PV1, PV2, and PV3 and was based, in part, on the BMO consistency findings that were part of the Approved Project's review package. With respect to the Proposed Project Amendment, the same Preserve Edge Plan applies, but with certain modifications reflecting the fact that the County's proposed Subarea Plan Amendment would designate PV1 and all but 6.1 acres of PV3 as hardline Preserve.

   Under the Preserve Edge Plan, the Proposed Project Amendment, like the Approved Project, would create a 100-foot buffer between the Otay Ranch RMP Preserve and development on PV2. The Preserve Edge Plan identifies the limited uses and functions allowed within the 100-foot-wide Preserve edge, and provides a list of plant species that are appropriate adjacent to the Otay Ranch RMP Preserve. The Preserve Edge Plan addresses drainage, toxic substances, lighting, noise, fuel modification, fencing, and invasive species in accordance with Chapter 3 of the Otay Ranch RMP and additional MSCP County Subarea Plan guidelines. The Preserve edge would reduce development within PV2 and adjacent to the Otay Ranch RMP Preserve by 9.9 acres (RH Consulting Group et al. 2019).

   In addition, development would be prohibited in 6.2 acres of area currently designated in the Otay Ranch GDP/SRP and County General Plan as low-density residential for development in PV2, which would instead be categorized as Conserved Open Space, which would be protected under a Biological Open Space Easement. The 6.2 acres of Conserved Open Space along the eastern edge of PV2 is immediately adjacent to proposed development. Providing an additional 6.2 acres of Conserved Open Space along the entire development edge would pull development away from designated Preserve and add to the adjacent open space habitat blocks. Since the 6.2 acres of PV2 is adjacent to development, fragmentation of large blocks of habitat would not occur.

   In regard to PV3, the Proposed Project Amendment is consistent with the June 26, 2019, GPA, which relocates the existing Proctor Valley Road, an approved MSCP County Subarea Plan Mobility Element facility, onto PV3 to avoid potential impacts to vernal pools and fairy shrimp within the City of San Diego MSCP Cornerstone Lands. The improvements necessary to implement the realignment of Proctor Valley Road would result in 6.1 acres of impact within PV3. Under the Proposed Project Amendment the remainder of PV3, consisting of 128.4 acres, would not be developed, further reducing the development footprint and associated edge effects related to this parcel.

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

   Findings: Within PV2, development would not occur within 6.2 acres adjacent to the significant blocks of habitat in the existing Otay Ranch RMP Preserve. These 6.2 acres was previously designated for development in the Otay Ranch GDP/SRP and County General Plan; however, these acres are now proposed to be protected from development as Conserved Open Space with a biological open space easement and, as such, would reduce the Preserve/development interface and contribute to large adjacent blocks of habitat. PV2 would include a 100-foot buffer along the Otay Ranch RMP Preserve, as required in the

Preserve Edge Plan (RH Consulting Group et al. 2019), to assist in regulating access, non-native predators, non-native species, illumination, drain water, and urban runoff. In addition, the alignment of Proctor Valley Road would be shifted onto PV3. These actions would reduce edge effects along the Preserve/development interface, and contribute to the preservation of additional lands adjacent to existing Preserve lands. As noted previously, the Otay Ranch Preserve is a component of the larger MSCP Preserve, which interconnects to other open space blocks under agency ownerships. Thus, the proposed development of PV2 and PV3 would be consistent with this criterion.

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

   Discussion Specific to PV2 and PV3: As discussed in Section 2.2.1, Criterion 1 – Minimization of Impacts to Habitat, the majority of PV2 and PV3 contains sensitive habitat areas, with the exception of 1.5 acres of disturbed habitat and 0.1 acres of existing development. To reduce impacts to sensitive habitats, areas of Conserved Open Space are proposed for PV2, which would reduce the Development Footprint as designated under the Otay Ranch GDP/SRP by 6.2 acres. All 6.2 acres of Conserved Open Space is mapped as coastal sage scrub, which is a Tier II vegetation community under the BMO, with a very small area (less than 0.1 acres) mapped as disturbed habitat. In addition, the Proposed Project Amendment would only impact a small portion of PV3 (4%), with the remainder preserved and managed by CDFW.

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

   Findings: As described previously, the incentives to develop in the least-sensitive areas of Otay Ranch were provided through designation of the Development Footprint and Otay Ranch RMP Preserve boundary in the Otay Ranch GDP/SRP. PV2 and PV3 were previously designated as developable areas within the Otay Ranch GDP/SRP after extensive consideration of the on-site habitat values, wildlife corridors, topography, and other existing constraints within the Proposed Project area, as well as the entire Otay Ranch overall. Thus, development of PV2 and PV3 would be consistent with the incentives to develop in the least-sensitive areas within Otay Ranch. In addition, the impacts to sensitive habitat would be further reduced compared to the previously designated Development Footprint because (1) the Proposed Project Amendment would reduce the amount of development within PV2 by 6.2 acres and (2) the County's proposed Subarea Plan Amendment would designate the vast majority of PV3 (128.4 of 134.5 acres) as hardline Preserve. Thus, the proposed development within PV2 and a small portion of PV3 would be in conformance with this criterion.

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

   No narrow endemic plant or wildlife species were observed within PV2 or the portion of PV3 proposed for development; therefore, this criterion does not apply.

7. *Preserve the biological integrity of linkages between BRCAs.*

   Discussion Specific to PV2 and PV3: The linkages identified in the MSCP Plan are based on the Baldwin Otay Ranch Wildlife Corridors Studies Report (Wildlife Corridors Studies Report) (Ogden 1992). The Wildlife Corridors Study Report identified two BRCAs overlapping the Proposed Project Amendment area. There are

no identified linkages within or surrounding PV2 or PV3. PV2 and PV3 and the immediately surrounding areas are currently undeveloped, with the exception of the adjacent existing Proctor Valley Road, which means that wildlife can move freely throughout the landscape. The wildlife corridor study identified specific local and regional corridors, which are not included in the boundaries of PV2 or PV3, used by wildlife. Although wildlife may currently move throughout PV2 and PV3, these two parcels are not considered habitat linkages (Ogden 1992). Additionally, the MSCP Plan provides designated BRCA and linkages, which are appropriate for this analysis, in Figure 2-2 (MSCP 1998).

Because PV2 and PV3 would be consistent with the originally designated Otay Ranch GDP/SRP and Otay Ranch RMP Preserve boundaries, development of these two areas would not impact identified habitat linkages.

Discussion in the Context of the Otay Ranch RMP: The Wildlife Corridors Studies Report identified local and regional corridors used by wildlife that would be maintained in the Otay Ranch RMP Preserve. There are no linkages within or surrounding the Proposed Project Amendment area as identified in Figure 2-2 of the MSCP Plan. The designated Otay Ranch RMP Preserve areas adjacent to and surrounding PV2 and PV3 provide for wildlife corridors and movement to those linkages, but are not identified linkages in the MSCP Plan (MSCP 1998).

Findings: As shown in Figure 7, Biological Resource Core Areas, PV2 and PV3 do not contribute directly to the defined linkages as identified in the MSCP Plan (MSCP 1998). Thus, the proposed development on these two parcels would not impede existing linkages or otherwise compromise their functionality.

8. *Achieve the conservation goals for Covered Species and habitats.*

No MSCP covered plant species have been observed within PV2 or within the portion of PV3 proposed for development. Ten MSCP covered wildlife species have a high potential to occur. The following text discusses these species and how PV2 and PV3 achieve conservation goals for Covered Species and their habitats. The conservation goals for Covered Species are presented in Table 3-5 of the MSCP Plan (MSCP 1998).

Discussion of Covered Wildlife Species Specific to PV2 and PV3: Neither PV2, PV3, nor the Proposed Project Amendment as a whole, contain key regional populations of covered wildlife species. However, there is a high potential for some covered wildlife species to occur in these areas (Table 3) (Figures 8A and 8B, Special-Status Species Occurrences).

Impacts specifically associated with PV2 and PV3 are also provided in Table 3. Impacts to covered wildlife species that are known to occur, or those that have a high potential to occur, within the entire Proposed Project Amendment area, are also outlined in Table 3. Table 3 also provides data regarding on-site preservation of habitat. Impacts and Preserve acreage for the entire Proposed Project Amendment are included in this analysis to provide the context for the BMO Findings of PV2 and PV3. Conservation goals, as outlined in Table 3-5 of the MSCP Plan (MSCP 1998), for each of the covered wildlife species listed in Table 3 were reviewed to ensure that development within PV2 and PV3 would not impede these conservation goals.

Table 3 Permanent Impacts to MSCP Covered Wildlife Species Present within the On-site Development Footprint of the Proposed Project Amendment (Including PV2 and a Portion of PV3) or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/State/ MSCP/County	Basis for Impact Evaluation	Total Proposed Project Amendment Development Footprint[a]	Non-Impacted Portions of the Proposed Project Amendment	
				Conserved Open Space and R14 Conservation Easement (acres)	*Otay Ranch RMP Preserve (acres)*[b]
orange-throated whiptail (*Aspidoscelis hyperythra*)	USFWS: None CDFW: WL MSCP: Covered County: Group 2	High potential to occur. There is 1,071.9 acres of modeled habitat within the Proposed Project Amendment area. Modeled habitat for this species includes chamise chaparral, disturbed chamise chaparral, coastal sage scrub, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, and southern mixed chaparral.	483.9 acres, of which 43.5 acres are in PV2 and PV3 combined.	187.2 (6.2 of Conserved Open Space in PV2)	382.8
Blainville's horned lizard (*Phrynosoma blainvillii*)	USFWS: None CDFW: SSC MSCP: Covered County: Group 2	Observed within the Biological Study Area (see Chapter 3, Glossary) but not specifically within PV2 or PV3. There is 1.185.3 acres of modeled habitat within the Proposed Project Amendment area. Modeled habitat for this species includes chamise chaparral, disturbed chamise chaparral, coastal sage scrub, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, non-native grassland, and southern mixed chaparral.	530.6 acres, of which 44.3 acres are in PV2 and PV3 combined.	215.6 (6.2 of Conserved Open Space in PV2)	415.1
Cooper's hawk (*Accipiter cooperii*) (nesting)	USFWS: None CDFW: WL MSCP: Covered County: Group 1	Observed within the Biological Study Area but not specifically within PV2 or PV3. There is 6.5 acres of modeled nesting habitat and 1,169.0 acres of modeled foraging habitat within the Proposed Project Amendment area. Nesting modeled habitat for this species includes eucalyptus woodland and oak riparian forest. Foraging modeled habitat for this species includes chamise chaparral,	3.0 acres of nesting and 516.9 acres of foraging habitat, of which 0 acres of nesting and 42.8 acres of foraging habitat are	0 nesting; 211.4 foraging (6.2 of Conserved Open Space in PV2)	3.4 nesting; 418.0 foraging

Table 3 Permanent Impacts to MSCP Covered Wildlife Species Present within the On-site Development Footprint of the Proposed Project Amendment (Including PV2 and a Portion of PV3) or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/State/ MSCP/County	Basis for Impact Evaluation	Total Proposed Project Amendment Development Footprint[a]	Non-Impacted Portions of the Proposed Project Amendment	
				Conserved Open Space and R14 Conservation Easement (acres)	*Otay Ranch RMP Preserve (acres)*[b]
		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.	in PV2 and PV3 combined. There is no nesting habitat in PV2 or PV3.		
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	USFWS: None CDFW: WL MSCP: Covered County: Group 1	Observed within the Biological Study Area but not specifically within PV2, or PV3. There is 1,154.6 acres of modeled nesting/foraging habitat within the Proposed Project Amendment area. Nesting and foraging modeled habitat for this species includes chamise chaparral, disturbed chamise chaparral, coastal sage scrub, disturbed coastal sage scrub, mulefat scrub, non-native grassland, and southern mixed chaparral.	513.0 acres, of which 42.8 acres are in PV2 and PV3 combined.	211.1 (6.2 of Conserved Open Space in PV2)	407.8
golden eagle (*Aquila chrysaetos*) (nesting and wintering)	USFWS: BCC CDFW: FP, WL MSCP: Covered County: Group 1	Observed within the Biological Study Area but not specifically within PV2 or PV3. There is 1,155.0 acres of modeled foraging habitat within the Proposed Project Amendment 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 Proposed Project Amendment specific data.	512.9 acres of foraging habitat, of which 42.8 acres are in PV2 and PV3 combined.	211.1 foraging (6.2 of Conserved Open Space in PV2)	407.1 foraging

Table 3 Permanent Impacts to MSCP Covered Wildlife Species Present within the On-site Development Footprint of the Proposed Project Amendment (Including PV2 and a Portion of PV3) or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/State/ MSCP/County	Basis for Impact Evaluation	Total Proposed Project Amendment Development Footprint[a]	Non-Impacted Portions of the Proposed Project Amendment	
				Conserved Open Space and R14 Conservation Easement (acres)	*Otay Ranch RMP Preserve (acres)*[b]
burrowing owl (*Athene cunicularia*) (burrow sites and some wintering sites)	USFWS: BCC CDFW: SSC MSCP: Covered County: Group 1	Direct observations of these 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 Biological Study Area during rare plant surveys (not within PV2). There is 115.3 acres of burrowing owl survey areas mapped within the Proposed Project Amendment area based on the burrowing owl habitat assessment conducted for the entire Biological Study Area.	71.8 acres, none of which are in PV2 and PV3.	0 (0 in PV1 and PV2)	29.6
coastal California gnatcatcher (*Polioptila californica californica*)	USFWS: FT CDFW: SSC MSCP: Covered County: Group 1	Observed within the Biological Study Area but not within PV2 or PV3. There is 1,041.2 acres of modeled nesting/foraging habitat within the Proposed Project Amendment area. Nesting and foraging modeled habitat for this species includes chamise chaparral, disturbed chamise chaparral, coastal sage scrub, disturbed coastal sage scrub, mulefat scrub, and southern mixed chaparral.	466.3 acres, of which 42.0 acres are in PV2 and PV3 combined.	182.7 (6.2 of Conserved Open Space in PV2)	375.5
western bluebird (*Sialia mexicana*)	USFWS: None CDFW: None MSCP: Covered County: Group 2	Observed within the Biological Study Area but not within PV2 or PV3. There is 707.3 acres of modeled foraging habitat within the Proposed Project Amendment 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.	174.7 acres, of which 44.3 acres are in PV2 and PV3 combined.	206.7 (6.2 of Conserved Open Space in PV2)	302.8

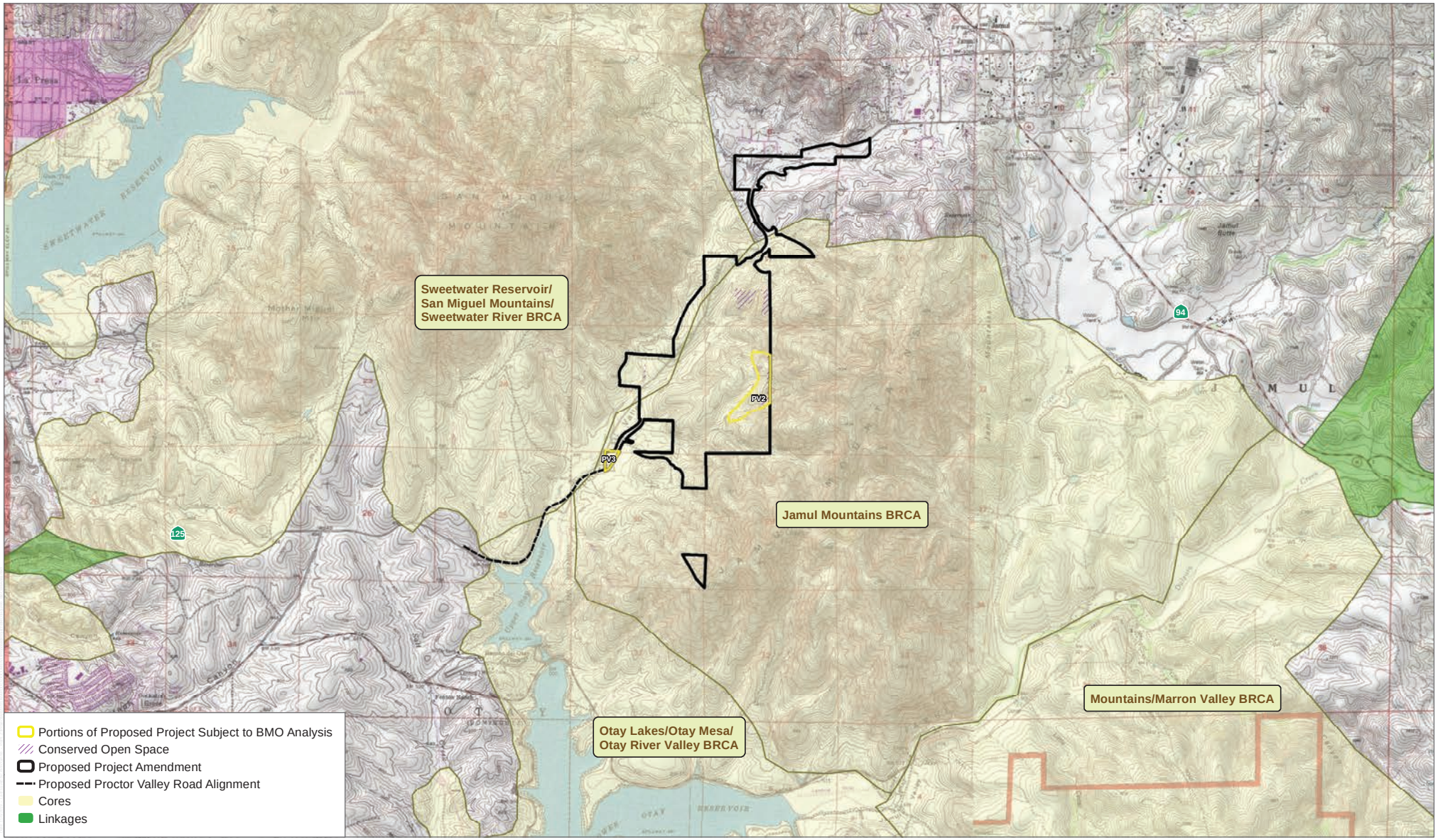
Table 3 Permanent Impacts to MSCP Covered Wildlife Species Present within the On-site Development Footprint of the Proposed Project Amendment (Including PV2 and a Portion of PV3) or with High Potential to Occur

Species Common Name (Scientific Name)	Regulatory Status: Federal/State/ MSCP/County	Basis for Impact Evaluation	Total Proposed Project Amendment Development Footprint[a]	Non-Impacted Portions of the Proposed Project Amendment	
				Conserved Open Space and R14 Conservation Easement (acres)	*Otay Ranch RMP Preserve (acres)*[b]
mule deer (*Odocoileus hemionus*)	USFWS: None CDFW: None MSCP: Covered County: Group 2	Observed within the Biological Study Area. There is 1,201.7 acres of modeled habitat within the Proposed Project Amendment area. Modeled habitat for this species includes chamise chaparral, cismontane alkali marsh, coastal sage scrub, developed, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, non-native grassland, and southern mixed chaparral.	538.4 acres, of which 44.4 acres are in PV2 and PV3 combined.	215.9 (6.2 of Conserved Open Space in PV2)	422.3
cougar (*Puma concolor*)	USFWS: None CDFW: None MSCP: Covered County: Group 2	Observed within the Biological Study Area (indirect observation of scat) but not within PV2 or PV3. There is 1,185.3 acres of modeled habitat within the Proposed Project Amendment area. Modeled habitat for this species includes chamise chaparral, disturbed chamise chaparral, coastal sage scrub, disturbed coastal sage scrub, disturbed habitat, eucalyptus woodland, mulefat scrub, oak riparian forest, non-native grassland, and southern mixed chaparral.	530.6 acres, of which 44.3 acres are in PV2 and PV3 combined.	215.6 (6.2 of Conserved Open Space in PV2)	415.1
American badger (*Taxidea taxus*)	USFWS: None CDFW: SSC MSCP: Covered County: Group 2	Observed within the Biological Study Area by sign only but not within PV2 or PV3. There is 1,119.5 acres of modeled habitat within the Proposed Project Amendment area. Modeled habitat for this species includes coastal sage scrub, chamise, disturbed chamise chaparral, disturbed coastal sage scrub, disturbed habitat, mulefat scrub, and non-native grassland.	527.6 acres, of which 44.3 acres are in PV2 and PV3 combined.	215.6 (6.2 of Conserved Open Space in PV2)	355.6

CDFW = California Department of Fish and Wildlife; MSCP = Multiple Species Conservation Program; RMP = Resource Management Plan; USFWS = U.S. Fish and Wildlife Service.

[a] Total development footprint acreage does not include off-site impacts. The off-site impacts are within lands owned by the City of Chula Vista and City of San Diego and both impacts and mitigation within those areas are subject to their respective planning documents.
[b] Otay Ranch RMP Preserve acreages exclude 13.1 acres of permanent impacts within the Preserve.

Status Legend
Federal
BCC: Bird of Conservation Concern
FT: Federally Threatened
State
SSC: Species of Special Concern
WL: Watch List
FP: Fully Protected
MSCP
Covered: Covered Species under the MSCP Plan
County of San Diego
Group 1
Group 2



SOURCE: USGS 7.5-minute Topographic Map; Hunsaker 2019; SANGIS 2016

DUDEK

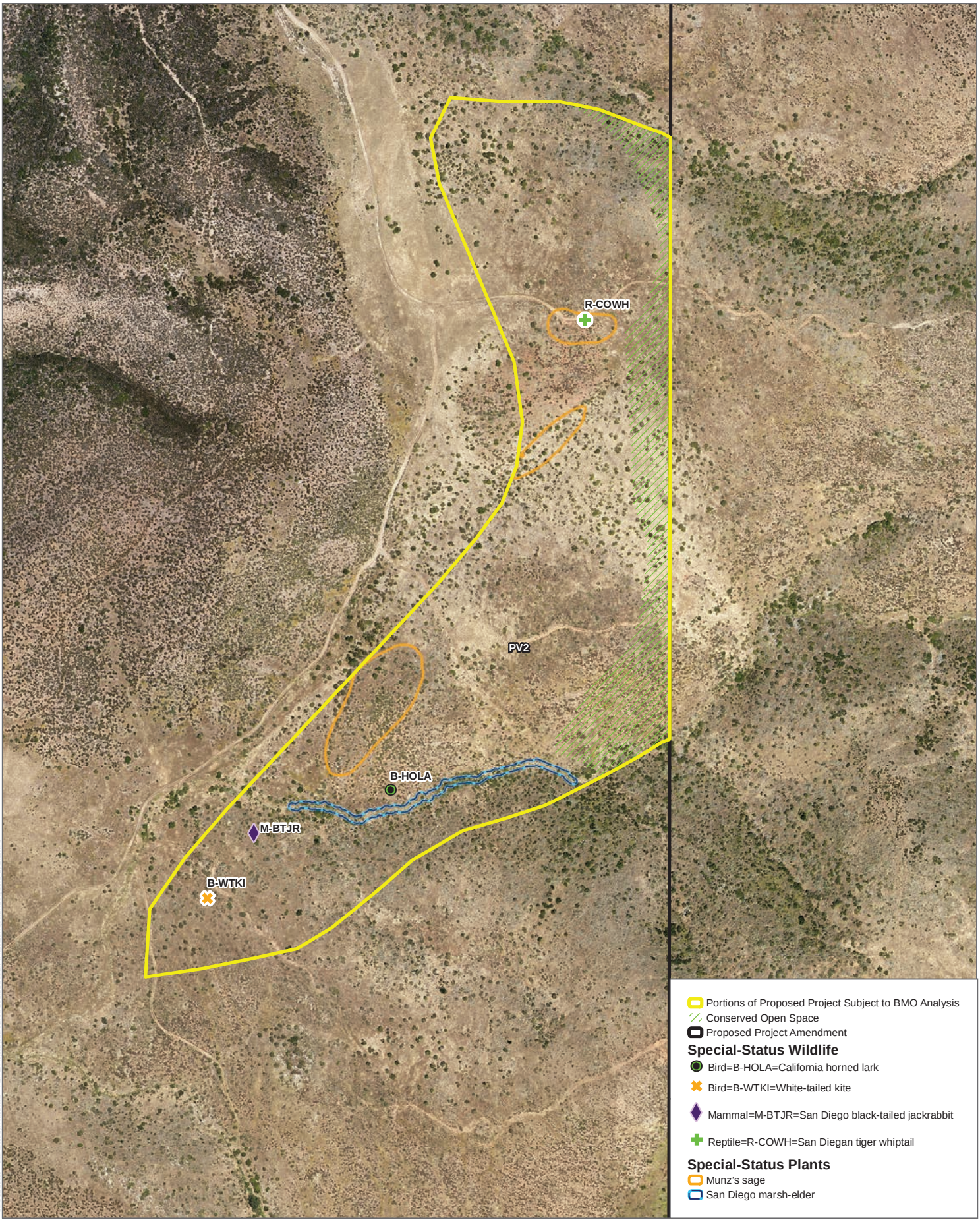
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FIGURE 7

Biological Resource Core Areas

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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SOURCE: SANGIS 2017; Hunsaker 2019

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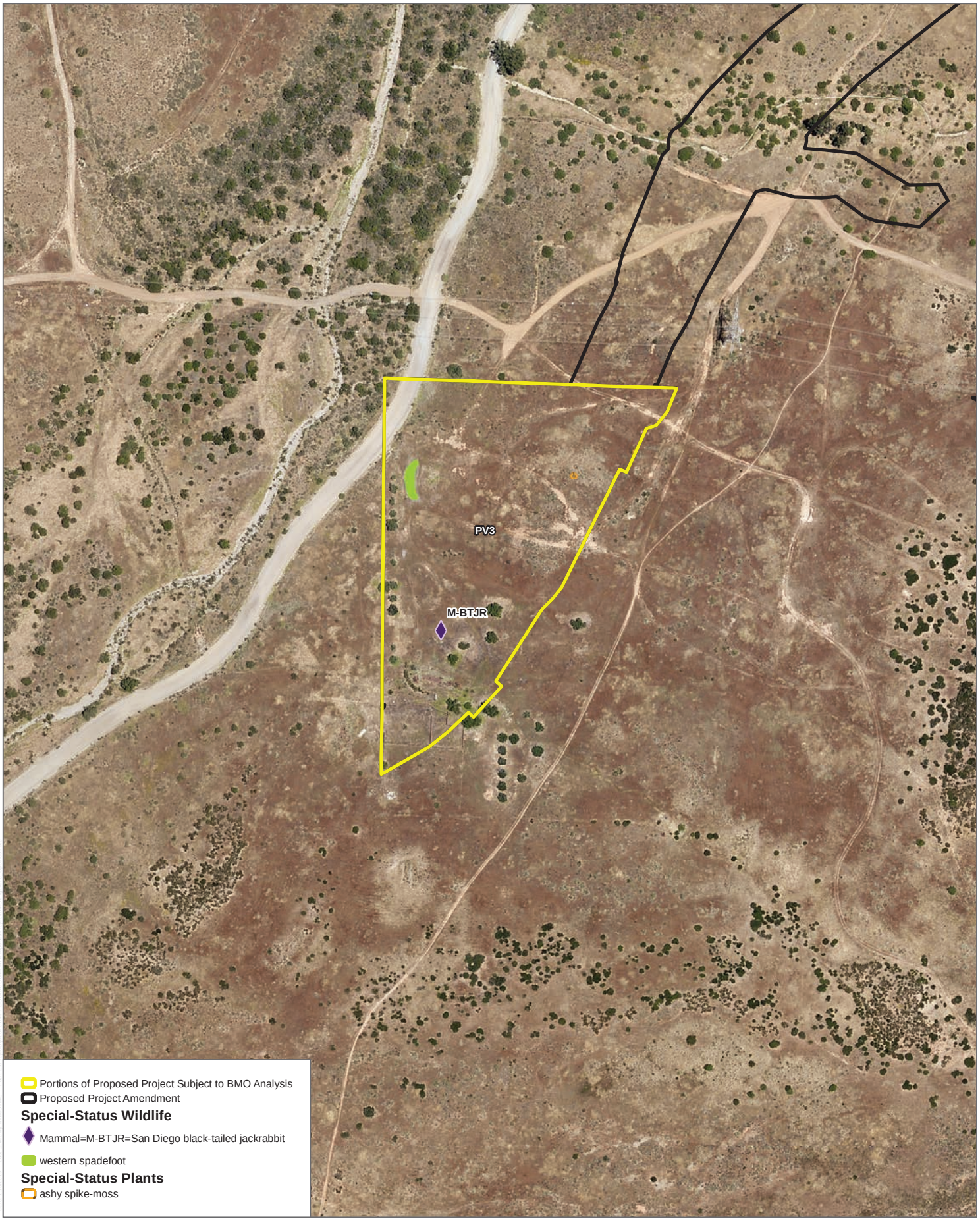
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FIGURE 8A

Special-Status Species Occurrences

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK

0 125 250 Feet

FIGURE 8B

Special-Status Species Occurrences

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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Orange-Throated Whiptail: Orange-throated whiptail (*Aspidoscelis hyperythra*) was not observed within PV2 or PV3; however, there is high potential for this species to occur. A total of 43.5 acres of modeled habitat for orange-throated whiptail would be impacted by development in PV2 and PV3, and 6.2 acres of modeled habitat would be preserved as Conserved Open Space. The conservation goals within the MSCP Plan outline preservation of known locations and potential habitat. Because PV2 or PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), and the Proposed Project Amendment would meet its conveyance requirements, development within these two areas would not impede the conservation goals for this species as outlined in Table 3-5 of the MSCP Plan (MSCP 1998).

Blainville's Horned Lizard: Blainville's horned lizard (*Phrynosoma blainvillii*) has a high potential to occur in PV2 or PV3. A total of 44.3 acres of modeled habitat for Blainville's horned lizard would be impacted by development in PV2 or PV3, and 6.2 acres of modeled habitat would be preserved as Conserved Open Space. The conservation goals within the MSCP Plan outline preservation of known locations and potential habitat. Because PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), and the Proposed Project Amendment would meet its conveyance requirements, development within these two areas would not impede the conservation goals for this species, as outlined in Table 3-5 of the MSCP Plan (MSCP 1998).

Cooper's Hawk: A Cooper's hawk (*Accipiter cooperii*) was observed flying overhead during biological surveys in 2014, but since much of the Proposed Project Amendment area is likely used by this species, the observations were not mapped. This species has a high potential to forage within PV2 and PV3; however, these areas do not contain suitable nesting habitat. A total of 42.8 acres of modeled habitat for Copper's hawk would be impacted by development in PV2 and PV3, and 6.2 acres of modeled habitat would be preserved as Conserved Open Space. The conservation goals within the MSCP Plan outline preservation of known locations and potential habitat (both foraging and nesting). Because PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), and the Proposed Project Amendment would meet its conveyance requirements, development within these two areas would not impede the conservation goals for this species, as outlined in Table 3-5 of the MSCP Plan (MSCP 1998).

Southern California Rufous-Crowned Sparrow: Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) was not observed in PV2 or PV3. Based on observations in coastal sage scrub habitat elsewhere in the Proposed Project Amendment area, there is a high potential for this species to occur in these parcels. A total of 42.8 acres of modeled habitat for this species would be impacted by development in PV2 and PV3. A total of 6.2 acres of modeled habitat would be preserved as Conserved Open Space. The conservation goals within the MSCP Plan outline preservation of known locations and potential habitat. Because PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), and the Proposed Project Amendment would meet its conveyance requirements, development within these two areas would not impede the conservation goals for this species, as outlined in Table 3-5 of the MSCP Plan (MSCP 1998).

Golden Eagle: Golden eagle (*Aquila chrysaetos*) was not observed within PV2 or PV3. There is a high potential for this species to forage in these parcels. A total of 42.8 acres of modeled foraging habitat for this species would be impacted by development in PV2 and PV3. A total of 6.2 acres of modeled habitat would be preserved as Conserved Open Space within PV2.

Table 3-5 of the MSCP Plan (MSCP 1998) and the County's Section 10 permit require that approved development avoid lethal take of any golden eagle and avoid human disturbance of any active golden eagle nest. In addition, approved development projects must maintain a 4,000-foot disturbance avoidance buffer around any active golden eagle nest within Preserve lands. PV2 and PV3 are not within 4,000 feet of an active golden eagle nest. Since the Proposed Project Amendment area, which includes PV2 and a portion of PV3, remains within the designated Otay Ranch RMP Preserve and Development Footprint, development of these areas would not result in loss of golden eagle foraging habitat beyond that described in Table 3-5 of the MSCP Plan (MSCP 1998). A full analysis regarding golden eagle habitat is provided in Appendix C of the Biological Resources Technical Report prepared for the Approved Project (Harvey 2017). Importantly, 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 Ranch Village 15, and Daley Ranch, and each include suitable golden eagle foraging habitat that was expected to be developed but would now be preserved.

Development of PV2 and PV3 would not have a significant impact on golden eagle because such development would (1) not cause lethal take of the species, (2) not disturb any active golden eagle nest, and (3) not place human activity within 4,000 feet of any active golden eagle nest located inside the MSCP Preserve. In addition, as discussed previously, the Proposed Project Amendment area, which includes PV2 and PV3, would be consistent with the MSCP Plan's assumptions regarding preservation of golden eagle foraging habitat (total preservation of 53% for the MSCP Plan and 54% for the MSCP County Subarea Plan).

Burrowing Owl: In 2014, a habitat assessment and focused surveys for burrowing owl (*Athene cunicularia*) were conducted within the Proposed Project Amendment area as required in Table 3-5 of the MSCP Plan. During these surveys, no burrowing owl or sign were observed in PV2 or PV3. In 2015, burrowing owl sign consisting of white wash, feathers, and pellets were observed at one location in the central portion of the Proposed Project Amendment area (outside of PV2 and PV3) during rare plant surveys. Development of PV2 and PV3 would not result in impacts to mapped burrowing owl habitat. The conservation goals within the MSCP Plan outline preservation of known locations and preservation of both known and potential habitat. Because PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), because the Proposed Project Amendment would meet its conveyance requirements, and because there are no known locations of burrowing owl within the PV2 or PV3, development of these two areas would not impede the conservation goals for this species, as outlined in Table 3-5 of the MSCP Plan (MSCP 1998).

Coastal California Gnatcatcher: Within PV2, 37.2 acres of modeled habitat for this species would be impacted by development, and 6.2 acres of modeled habitat would be preserved as Conserved Open Space. Within PV3, 4.8 acres of suitable habitat for coastal California gnatcatcher would be impacted. Conservation provided through implementation and conformance with the Otay Ranch RMP and BMO habitat mitigation requirement would provide mitigation for direct impacts to covered sensitive species, including coastal California gnatcatcher, to reduce impacts to less than significant.

The conservation goals within the MSCP County Subarea Plan outline preservation of both known and potential habitat, as well as core areas where the species occurs and known locations. As a condition of coverage, Table 3-5 of the MSCP Plan states, "No cleaning [sic] of occupied habitat within the cities' MHPAs [Multiple Habitat Planning Areas] and within the County's Biological Resource Core Areas may occur between March 1 and August 15" (County of San Diego 1997). The Proposed Project Amendment includes

mitigation measures that would reduce impacts to any special-status bird species occurring within the Development Footprint. Those measures include biological monitoring to prevent disturbance outside of the limits of grading, temporary construction fencing, and noise-reduction measures during the nesting season. Specific to coastal California gnatcatcher, no clearing, grading, or grubbing activities may occur within habitat identified by a qualified biologist as being occupied by coastal California gnatcatcher during the nesting season for the species (February 15 through August 15 annually). If construction occurs during the nesting season, a nesting survey for coastal California gnatcatcher must be conducted prior to the onset of construction. Construction may occur if active breeding territories can be avoided, and construction activities can be managed to limit noise levels in occupied habitat within 500 feet of the Proposed Project Amendment area, or if noise attenuation measures, such as temporary sound walls, would be implemented to reduce noise levels to below 60 A-weighted decibels (dBA) equivalent sound level (L_{eq}) or below existing ambient noise levels (whichever is greater).

Development of PV2 and PV3 would not impede the conservation goals for coastal California gnatcatcher as outlined in Table 3-5 of the MSCP Plan (MSCP 1998) for the following reasons: (1) PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), (2) the Proposed Project Amendment would meet its conveyance and BMO mitigation requirements, (3) suitable habitat would be preserved within Conserved Open Space, and (4) mitigation measures that would reduce impacts to any special-status bird species occurring within the Development Footprint have been incorporated.

Western Bluebird: Western bluebird (*Sialia mexicana*) was not observed within PV2 or PV3 during surveys conducted within the Proposed Project Amendment area. There is a high potential for this species to occur in these parcels. A total of 44.3 acres of modeled habitat for this species would be impacted by development in PV2 and PV3, and 6.2 acres of modeled habitat would be preserved as Conserved Open Space. The conservation goals within the MSCP Plan outline preservation of potential habitat. Because PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), and the Proposed Project Amendment would meet its conveyance requirements, development of these two areas would not impede the conservation goals for this species as outlined in Table 3-5 of the MSCP Plan (MSCP 1998).

Mule Deer: Mule deer (*Odocoileus hemionus*) was not observed within PV2 or PV3 during surveys conducted within the Proposed Project Amendment area. There is a high potential for this species to occur in these areas. A total of 44.4 acres of modeled habitat for this species would be impacted by development in PV2 and PV3, and 6.2 acres of modeled habitat would be preserved as Conserved Open Space. The conservation goals within the MSCP Plan outline preservation of BRCAs and associated linkages. PV2 and PV3 are located within the Jamul Mountains BRCA (also identified as BRCA 6 in the MSCP Plan), which is included in the conservation goals. Because PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), and the Proposed Project Amendment would meet its conveyance requirements, development of these two areas would not impede the conservation goals for this species as outlined in Table 3-5 of the MSCP Plan. In addition, the Proposed Project Amendment would include three wildlife crossings outside the boundaries of PV2 and PV3, which would help ensure that this species can continue to move throughout the BRCAs as associated linkages.

Cougar: Cougar (*Puma concolor*) sign was not observed within PV2 or PV3 during surveys conducted within the Proposed Project Amendment area. There is a high potential for this species to occur in these areas. A total of 44.3 acres of modeled habitat for this species would be impacted by development in PV2 and PV3,

and 6.2 acres of modeled habitat would be preserved as Conserved Open Space. Similar to mule deer, the conservation goals within the MSCP Plan outline preservation of BRCAs and associated linkages, and BRCAs 6 and 7 are included in the goals for this species. Because PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), and the Proposed Project Amendment would meet its conveyance requirements, development within these two areas would not impede the conservation goals for this species as outlined in Table 3-5 of the MSCP Plan (MSCP 1998). In addition, the Proposed Project Amendment would include three wildlife crossings outside the boundaries of PV2 and PV3, which would help to ensure that this species can continue to move throughout the BRCAs as associated linkages.

American Badger: American badger (*Taxidea taxus*) was not mapped specifically within PV2 or PV3. There is a high potential for this species to occur. A total of 44.3 acres of modeled habitat for this species would be impacted by development in PV2 and PV3, and 6.2 acres of modeled habitat would be preserved as Conserved Open Space. The conservation goals within the MSCP Plan outline preservation of potential habitat. Because PV2 and PV3 do not encroach into the 11,375-acre hardline Otay Ranch RMP Preserve (which is a component of the MSCP Preserve), and the Proposed Project Amendment would meet its conveyance requirements, development of these two areas would not impede the conservation goals for this species as outlined in Table 3-5 of the MSCP Plan (MSCP 1998).

Discussion of Covered Wildlife Species in the Context of the Otay Ranch RMP: The Otay Ranch RMP outlines objectives and policies for the preservation of sensitive wildlife species within Otay Ranch (Policies 2.5, 2.8, and 2.11) (City of Chula Vista and County of San Diego 2015b). As stated in Section 3.3.3.7 of the MSCP County Subarea Plan, "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). Because the MSCP County Subarea Plan and Implementing Agreement incorporate the Otay Ranch RMP into the MSCP Preserve, any Otay Ranch project that participates in, and is consistent with, the MSCP Plan is deemed to have mitigated its California Environmental Quality Act impacts on any affected Covered Species.

Preservation goals for select sensitive wildlife species are identified and outlined within these policies, which apply Ranch-wide (City of Chula Vista and County of San Diego 1996). The Otay Ranch RMP requires preservation of a minimum of 52% of Otay Ranch populations of coastal California gnatcatcher; preservation of a minimum of 75% of Otay Ranch populations of wildlife species recognized as Category 2 candidate species by USFWS (see Table 5 of the Otay Ranch RMP; City of Chula Vista and County of San Diego 1993b); and preservation of raptor nesting, roosting, and foraging habitat. Since the Otay Ranch RMP is a component of the MSCP County Subarea Plan, these Ranch-wide goals are incorporated into the MSCP County Subarea Plan. As stated in Section 3.3.3.7 of the MSCP County Subarea Plan, "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 percentage of populations retained within the Otay Ranch RMP Preserve, as shown in Table 5 of the Otay Ranch RMP, includes the population estimates at the time of Otay Ranch RMP approval. Because the Proposed Project Amendment, which includes PV2 and PV3, conforms to the original Otay Ranch GDP/SRP boundary, any populations recorded within the portions of the Otay Ranch RMP Preserve within the Proposed Project Amendment area would contribute to attainment of the Ranch-wide Otay Ranch RMP

conservation goals. Pursuant to the Otay Ranch RMP, the Proposed Project Amendment, which includes PV2 and PV3, is not required to meet the Ranch-wide standard. Rather, the Otay Ranch RMP Preserve Conveyance Obligation satisfies the conservation goals. In the context of the Otay Ranch RMP Preserve conveyance, which is part of the MSCP Preserve, the Proposed Project Amendment's habitat contribution with respect to individual species' habitat is described below.

Orange-Throated Whiptail: The Proposed Project Amendment would convey 382.8 acres of on-site suitable habitat for orange-throated whiptail to the Otay Ranch RMP Preserve, with an additional 187.2 acres designated as Conserved Open Space or preserved under the R14 Conservation Easement. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

Blainville's Horned Lizard: The Proposed Project Amendment would convey 415.1 acres of on-site suitable habitat for Blainville's horned lizard to the Otay Ranch RMP Preserve with an additional 215.6 acres designated as Conserved Open Space or preserved under the R14 Conservation Easement. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

Cooper's Hawk: The Proposed Project Amendment would convey 418.0 acres of on-site foraging habitat and 3.4 acres of suitable nesting habitat for Cooper's hawk. An additional 211.4 acres of suitable foraging habitat is designated as Conserved Open Space or preserved under the R14 Conservation Easement. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

Southern California Rufous-Crowned Sparrow: The Proposed Project Amendment would convey 407.1 acres of on-site suitable habitat for Southern California rufous-crowned sparrow to the Otay Ranch RMP Preserve, with an additional 211.1 acres designated as Conserved Open Space or preserved under the R14 Conservation Easement. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

Golden Eagle: The Proposed Project Amendment would convey 407.1 acres of on-site foraging habitat for golden eagle to the Otay Ranch RMP Preserve, with an additional 211.1 acres designated as Conserved Open Space or not impacted by the Proposed Project Amendment. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

Burrowing Owl: The Proposed Project Amendment would convey 29.6 acres of on-site suitable habitat for burrowing owl to the Otay Ranch RMP Preserve. There is no burrowing owl habitat within PV2 or PV3.

Coastal California Gnatcatcher: The Proposed Project Amendment would provide for the preservation of habitat surrounding three pairs of coastal California gnatcatcher. Specifically, within the Proposed Project Amendment boundaries, approximately 375.5 acres of coastal sage scrub would be conveyed to the Otay Ranch RMP Preserve, with an additional 182.7 acres designated as Conserved Open Space or preserved under the R14 Conservation Easement. There is 6.2 acres of coastal sage scrub specifically located in PV2 Conserved Open Space that could be conveyed to the Otay Ranch RMP Preserve in the future. Much of the coastal sage scrub that would be conveyed to the Otay Ranch RMP Preserve is found in large patches within Village 14 and has been designated as very high habitat value.

Western Bluebird: The Proposed Project Amendment would convey 302.8 acres of on-site suitable habitat for western bluebird to the Otay Ranch RMP Preserve, with an additional 206.7 acres designated as Conserved Open Space or preserved under the R14 Conservation Easement. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

Mule Deer: The Proposed Project Amendment would convey 422.3 acres of on-site suitable habitat for mule deer to the Otay Ranch RMP Preserve, with an additional 215.9 acres designated as Conserved Open Space

or preserved under the R14 Conservation Easement. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

Cougar: The Proposed Project Amendment would convey 415.1 acres of on-site suitable habitat for cougar to the Otay Ranch RMP Preserve, with an additional 215.6 acres designated as Conserved Open Space or preserved under the R14 Conservation Easement. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

American Badger: The Proposed Project Amendment would convey 355.6 acres of on-site suitable habitat for American badger to the Otay Ranch RMP Preserve, with an additional 215.6 acres designated as Conserved Open Space or preserved under the R14 Conservation Easement. There is 6.2 acres of suitable habitat within Conserved Open Space in PV2.

Because PV2 and PV3 do not contain areas of designated Otay Ranch RMP Preserve, the conservation of Covered Species and their habitat would be satisfied by conveyance of habitat to the Otay Ranch RMP Preserve pursuant to the Otay Ranch RMP Preserve Conveyance Obligation.

Findings

Covered Wildlife: PV2 contains habitat that could support 11 covered wildlife species (Table 3), including golden eagle and coastal California gnatcatcher. Development of PV2 and PV3 would result in impacts to suitable habitat for all 11 Covered Species.

PV2 and PV3 are governed by the conservation goals of the Otay Ranch RMP, which is incorporated into the MSCP Plan. Mitigation of impacts would be achieved through (1) conveyance to the Otay Ranch RMP Preserve as required by the Otay Ranch RMP Preserve Conveyance Obligation, (2) additional habitat-based mitigation required under this BMO Findings, and (3) additional MSCP and Otay Ranch RMP measures applied to coastal California gnatcatcher. Compliance with the Otay Ranch RMP Preserve Conveyance Obligation, coupled with additional mitigation for golden eagle and coastal California gnatcatcher, would meet the conservation goals for Covered Species and habitats outlined in Table 3-5 of the MSCP Plan and conservation goals in the Otay Ranch RMP. Thus, the proposed development of PV2 and PV3 would be consistent with this criterion.

2.2.5.2 Design Criteria for Linkages and Corridors (Attachment H)

Criterion 5 requires that PV2 and PV3 comply with the applicable MSCP design criteria outlined in Attachment H (Design Criteria for Linkages and Corridors) of the BMO. Attachment H outlines 11 design criteria developed to protect the biological values of linkages and corridors within the MSCP Plan boundaries. The BMO defines “linkage” as “an area of land which supports or contributes to the long-term movement of wildlife and genetic material,” whereas a “corridor” is defined as “a specific route that is used for movement and migration of species. A corridor may be different from a ‘Linkage’ because it represents a smaller or narrower avenue for movement” (County of San Diego 2010, p. 14). The Otay Ranch RMP Preserve within the Proposed Project Amendment area contains large blocks of habitat that support surrounding linkages as identified in the Final MSCP Plan (Figure 2-2, MSCP 1998). There are no MSCP-identified linkages within the Proposed Project Amendment area, which includes PV2

and PV3. The following provides the criteria described in Attachment H, and analyzes whether PV2 and PV3 conform to those criteria.

1. *Habitat linkages as defined by the Biological Mitigation Ordinance, rather than just corridors, will be maintained.*

   Discussion: The linkages identified in the MSCP Plan are based on the Wildlife Corridors Studies Report (Ogden 1992). Although the wildlife corridor study identified a BRCA overlapping the Proposed Project Amendment area, there are no identified linkages within or surrounding the Proposed Project Amendment area, and specifically PV2 and PV3. The Proposed Project Amendment area, which includes PV2 and PV3, is currently undeveloped, with the exception of the existing Proctor Valley Road. Wildlife can move freely throughout the Proposed Project Amendment area and surrounding undeveloped landscape. The Wildlife Corridors Studies Report identified specific local and regional corridors used by wildlife in the region (Ogden 1992). Although wildlife may move throughout PV2 and PV3, these two parcels are not considered habitat linkages. Additionally, the MSCP Plan provides designated BRCA and linkages, which are appropriate for this analysis, in Figure 2-2 (MSCP 1998).

   The designated Otay Ranch RMP Preserve areas adjacent to and surrounding PV2 and PV3 provide for wildlife corridors and movement to those linkages but are not identified linkages in the MSCP Plan. Because PV2 and PV3 would be consistent with the originally designated Otay Ranch GDP/SRP and Otay Ranch RMP Preserve boundaries, development of these areas is not expected to impede wildlife movement along identified habitat linkages.

   Findings: As shown in Figure 7, PV2 and PV3 do not contribute directly to the defined linkages as identified in the MSCP Plan. Thus, the proposed development on these two areas would not impede existing linkages or otherwise compromise their functionality. The proposed development of PV2 and PV3 would be consistent with this criterion.

2. *Existing movement corridors within linkages will be identified and maintained.*

   Discussion Specific to PV2 and PV3: As previously discussed, the MSCP Plan does not identify linkages within the Proposed Project Amendment area, which includes PV2 and PV3. This discussion focuses on the movement corridors identified within the Proposed Project Amendment area. The Wildlife Corridors Studies Report (Ogden 1992) identifies several local and regional wildlife corridors in the Proposed Project Amendment area. Figure 9, 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 exist between large areas of open lands. As shown on Figure 9, 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. None of the corridors identified in the Wildlife Corridors Studies Report occur within PV2; therefore, development of these areas would not impact previously identified wildlife movement corridors.

   Specifically, the regional corridor identified as regional corridor (R1) is located within the Otay Ranch RMP Preserve north of PV3. In accordance with the Otay Ranch GDP/SRP, R1 was designed to facilitate movement to the adjacent BRCA, with a required minimum width of 1,300 feet at the northwestern end to 2,200 feet at the southeastern end (City of Chula Vista and County of San Diego 2015a). As shown on Figure 9, development of PV2 would not impede use of this corridor, and removal of the majority of

development from PV3 would ensure that a large expanse of open space is provided to support wildlife movement in R1. Development of PV2 and a very small portion of PV3 would respect and maintain the corridor requirements of the original approvals, and would protect the topographic and vegetative cover for the corridors. Development surrounding R1 has been sited so that the entire canyon from rim-to-rim is protected from development. When the delineation of rim-to-rim topography is not obvious, there would be approximately 800 feet of width extending up each side of the ravine away from the center of the corridor, creating a 1,600-foot-wide corridor (Ogden 1992). Development north of the corridor would be located at an elevation approximately 30 feet above the corridor and would not encroach into the corridor. Under the Proposed Project Amendment, development south of the corridor would be avoided. A wildlife crossing would be provided to funnel wildlife under Proctor Valley Road.

Discussion in the Context of the Otay Ranch RMP and Otay Ranch GDP/SRP: Additionally, as described in the Otay Ranch RMP (City of Chula Vista and County of San Diego 2015b), the original Otay Ranch GDP/SRP revised the Proctor Valley Development Footprint to resolve general Preserve design and wildlife habitat connectivity issues. After analyzing more than seven different land plan alternatives for the Proctor Valley Parcel, revisions to the original Otay Ranch New Town Plan application were made to identify and maintain wildlife movement within linkages, as follows:

Significant areas of development were eliminated from the proposed development in central Proctor Valley on both the northern and southern boundaries of the regional wildlife corridor.

The proposed conference center in the middle of the Proctor Valley Parcel was eliminated to avoid any encroachment into the wildlife corridor.

Development in the inverted L was eliminated from the ravine and moved onto the ridgetop so that animals could access the ravine, which leads them northwest over the saddle and into the Sweetwater Reservoir.[3]

The proposed housing along the ridgetop above the lake at the southern entrance to Proctor Valley and the southernmost portions of the proposed development bubble in central Proctor Valley were eliminated to reduce impacts to coastal sage scrub and the local wildlife corridor from Jamul Mountains to Proctor Valley.

These revisions were incorporated into the Otay Ranch GDP/SRP, and the Proctor Valley R1 was designed to become an extensive linkage with a required minimum width of 1,300 feet at the northwestern end to 2,200 feet at the southeastern end. As shown on Figure 9, the design of the Development Footprint for PV2 and PV3 would be consistent with these requirements.

Findings: Existing movement corridors within linkages as identified in the Otay Ranch GDP/SRP technical documents would be defined, established, and maintained, and not impacted by the development of PV2 and PV3. Specifically, the Proposed Project Amendment as a whole would help ensure that the corridors identified in the Wildlife Corridors Studies Report are maintained by conveying habitat surrounding and including the identified corridors. Because PV2 and PV3 would be consistent with the originally designated Otay Ranch GDP/SRP and Otay Ranch RMP Preserve boundaries, the functions and values of the movement areas identified in the Wildlife Corridors Studies Report (Ogden 1992), and the BRCAs identified in the MSCP Plan, movement corridors would be maintained. Thus, the proposed development of PV2 and PV3 would be consistent with this criterion.

3 The inverted L is not a part of this analysis and has been subsequently acquired for Preserve.

3. *Corridors with good vegetative and/or topographic cover will be protected.*

   Discussion: As discussed in detail under the previous criterion, development of the Proposed Project Amendment would be consistent with the originally designated Otay Ranch GDP/SRP and Otay Ranch Preserve boundaries, and would maintain and protect the originally designated regional corridor (R1), including the good vegetative (coastal sage scrub) and topographic cover (R1 corridor is located in a valley) for this corridor.

   For the Proposed Project Amendment, the on-site conveyed Preserve lands would support the linkages and corridors as described in Section 2.2.5.2, Design Criteria for Linkages and Corridors. A total of 651.4 acres of land within the Proposed Project Amendment area would be conveyed to the Otay Ranch RMP Preserve (435.2 acres), preserved as Conserved Open Space (24.5 acres), or conserved with a Conservation Easement (191.5 acres). Of this 651.4 acres, 638.9 acres is native habitat. Approximately 12.1 acres of the 638.9 acres of native habitat would be used for roads and associated infrastructure, which would leave 626.8 acres of coastal sage scrub, chaparral, and riparian vegetative cover within the Otay Ranch RMP Preserve lands.

   Findings: PV2 and PV3 do not function as or include wildlife corridors. However, one corridor (R1) is located south of PV2. Because the Development Footprint of PV2 and PV3 would be consistent with the designated Otay Ranch GDP/SRP and Otay Ranch RMP Preserve boundaries, the functionality of the R1 corridor located within the Otay Ranch RMP Preserve would be maintained; therefore, the good vegetative (i.e., coastal sage scrub) and/or topographic cover of the corridors would be protected. Thus, the proposed development of PV2 and PV3 would be consistent with this criterion.

4. *Regional linkages that accommodate travel for a wide range of wildlife species, especially those linkages that support resident populations of wildlife, will be selected.*

   Discussion: The focal species chosen for the Wildlife Corridors Studies Report (Ogden 1992) include larger mammals such as mule deer, cougar, and bobcat (*Lynx rufus*), and the following two bird species: coastal California gnatcatcher and coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*). These five species were chosen as the focal species for the Wildlife Corridor Studies Report because they "naturally occur in low densities and that are unwilling or unable to cross large areas of developed or otherwise unfavorable habitat" (Ogden 1992). The corridor recommendations provided in the Wildlife Corridors Studies Report were based on the ability of the corridor to accommodate travel for these species. As previously stated, although there are no MSCP-defined linkages within the Proposed Project Amendment area (consisting of PV2 and PV3), there is one regional corridor as defined in the Wildlife Corridors Studies Report (R1). This regional corridor is the basis for evaluating PV2 and PV3 in conjunction with this criterion.

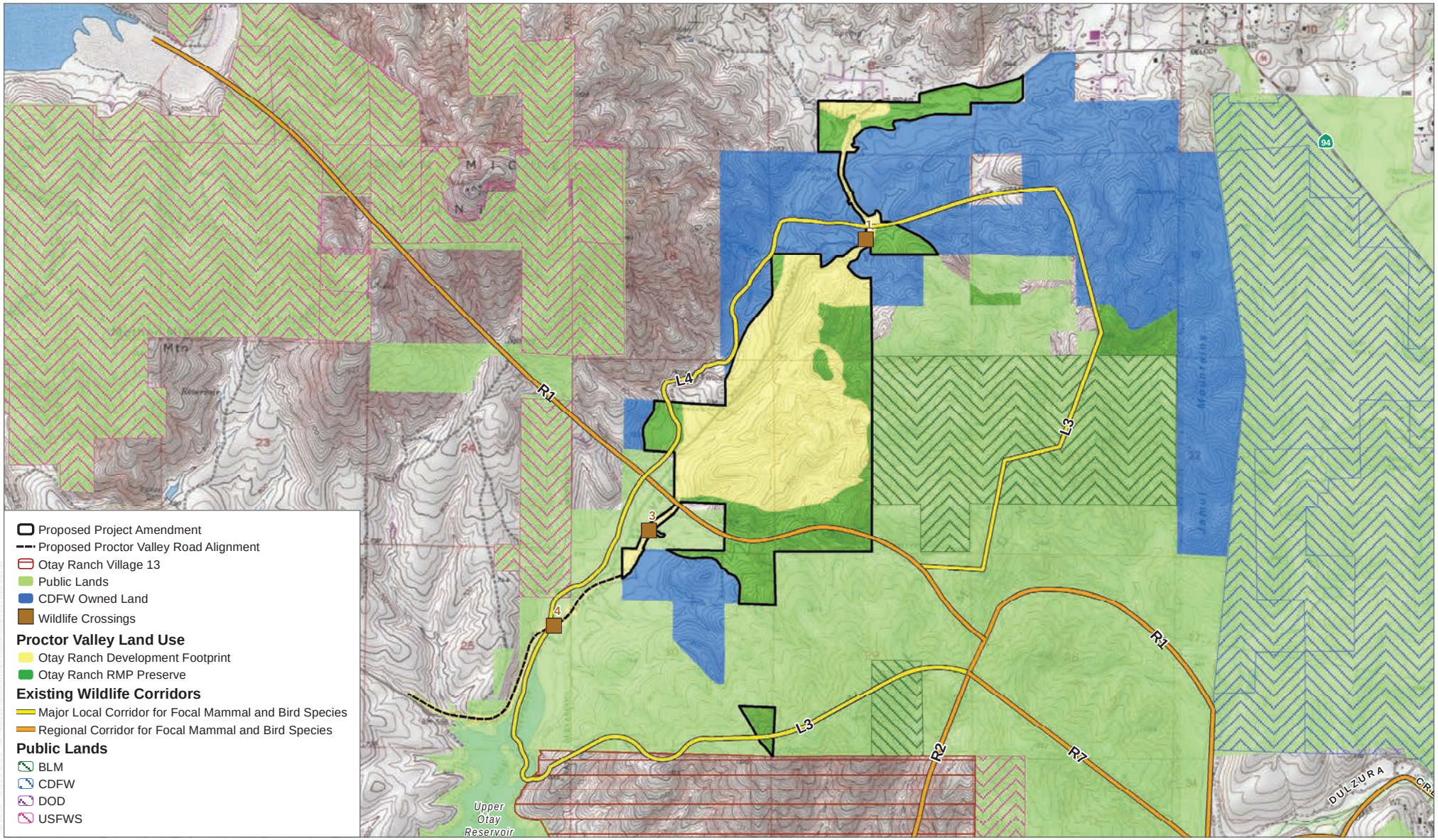
   Even after development, the Proposed Project Amendment would accommodate travel for a wide range of wildlife species through R1. The Development Footprint would adhere to the required widths to protect that corridor; development would be located at an elevation above the corridor and pulled back from the edge of the ridgetop; a minimum of a 100-foot buffer between development and Preserve would be provided for in the Development Footprint; and a wildlife crossing would be provided under Proctor Valley Road. In addition, the Proposed Project Amendment's design, including the design for development in PV2 and PV3, would be consistent with the Otay Ranch GDP/SRP and Otay Ranch RMP Preserve, which was based on the Wildlife Corridors Studies Report and designed specifically to preserve regional linkages.

   Findings: PV2 and PV3 are not considered regional linkages or located adjacent to regional linkages as identified in the MSCP Plan. PV2 and PV3, as designed, would be consistent with the Otay Ranch GDP/SRP and Otay Ranch RMP Preserve. In addition, the Proposed Project Amendment's design would include the

recommendations for corridors described in the Wildlife Corridors Studies Report (Ogden 1992). Therefore, development of PV2 and PV3 would be consistent with this criterion.

The Proposed Project Amendment does not contemplate development on the majority of PV3. In addition, as shown on Figure 9, adjacent to PV2, the Proposed Project Amendment area would provide an open corridor width well beyond what was originally designated for corridor R1 in the Otay Ranch GDP/SRP and Otay Ranch RMP.

Findings: Development of PV2 and PV3 would maintain the linkage width as specified in the Wildlife Corridors Studies Report (Ogden 1992). The corridor study recommends R1 maintain a width of 1,300 to 2,200 feet through Proctor Valley. The widths of the corridors were based on providing cover and passage for five species (three large mammals and two bird species). For the five focal wildlife species to use the regional and local corridors identified for Proctor Valley, the Proposed Project Amendment would avoid development on the majority of PV3, and thus would provide an expansive corridor beyond what was anticipated by the Otay Ranch GDP/SRP and Otay Ranch RMP. Development of PV2 would therefore be consistent with this criterion.



SOURCE: USGS 7.5-minute Topographic Map; Hunsaker 2019; SANGIS 2003; OGDEN 1992

DUDEK

0 1,150 2,300 Feet

FIGURE **9**

Wildlife Corridor and Habitat Linkages

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment - BMO Analysis

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

   Discussion: See Criteria 2 and 5 in this section, which provide detailed information regarding the widths of wildlife corridor R1, which is adjacent to PV2 and PV3. As stated in the Wildlife Corridors Studies Report (Ogden 1992), the overall length of R1 is more than 6 miles long, with a varying width of 1,100 to 2,200 feet, depending on topography. Within the confines of the Proposed Project Amendment area, R1 is approximately 3,800 feet long. As previously discussed, the Development Footprint for the Proposed Project Amendment, which includes PV2 and a small portion of PV3, was designed based on the recommendations provided in the Wildlife Corridors Studies Report. The designated Development Footprint surrounding R1 provides a corridor greater than 1,000 feet to facilitate movement for large mammals and birds, and also reaches rim-to-rim along the drainage.

   Findings: Existing movement corridors within linkages were identified in the Otay Ranch GDP/SRP technical documents and would be defined, established, and maintained, and not impacted by development of PV2 and a small portion of PV3. Specifically, the Proposed Project Amendment as a whole would help ensure that the corridors identified in the Wildlife Corridors Studies Report are maintained by conveying habitat surrounding and including the identified corridors. Because PV2 and PV3 would be consistent with the originally designated Otay Ranch GDP/SRP and Otay Ranch RMP Preserve boundaries, the functions and values of the movement areas identified in the Wildlife Corridors Studies Report (Ogden 1992), and the BRCAs identified in the MSCP Plan, movement corridors would be maintained at the recommend length and width. Thus, the proposed development of PV2 and PV3 would be consistent with this criterion.

6. *Visual continuity (i.e., long lines-of-sight) will be provided within movement corridors. This makes it more likely that the animals will keep moving through it. Developments along the rim of a canyon used as a corridor should be set back from the canyon rim and screened to minimize their visual impact.*

   Findings: As stated in Section 2.2.2 regarding Criteria 2, designated development within PV2 and PV3 was sited to maintain the corridor widths recommended within the Wildlife Corridors Studies Report (Ogden 1992). Development would be set back from the rim of the R1 corridor, and a 100-foot Preserve edge buffer is included as a part of the Proposed Project Amendment to provide screening of development from wildlife moving within the R1 corridor. No development would be placed within the corridors.

   Discussion: Development of PV2 and PV3 would not impede the recommendations provided in the Wildlife Corridors Studies Report and the requirements outlined in the Otay Ranch RMP. Therefore, development of PV2 and PV3 would be in conformance with this criterion.

7. *Corridors with low levels of human disturbance, especially at night, will be selected. This includes maintaining low noise levels and limiting artificial lighting.*

   Discussion: The corridor within the vicinity of PV2 and PV3 (R1) has already been identified by the Otay Ranch GDP/SRP and the Otay Ranch RMP. As discussed throughout this section, the Otay Ranch GDP/SRP and the Otay Ranch RMP adapted the corridor locations and recommendations provided in the Wildlife Corridors Studies Report. Corridor selection is not required or allowed as a part of the Proposed Project Amendment. The discussion provided in support of this criterion is based on the measures identified for

the Proposed Project Amendment (PV2 and a portion of PV3), which reduce the levels of human disturbance on those identified corridors.

A Preserve Edge Plan has been developed to identify allowable uses for areas adjacent to the Otay Ranch RMP Preserve within the Preserve edge (RH Consulting Group et al. 2019). The Preserve edge is a 100-foot-wide strip of land within the designated development that is adjacent to the Otay Ranch RMP Preserve. The Preserve edge assumes that areas of Conserved Open Space are still within designated development. In accordance with Policy 7.2 of the Otay Ranch RMP, a Preserve Edge Plan is required to be developed for all specific plans that contain areas adjacent to the Preserve (City of Chula Vista and County of San Diego 2015b). The Preserve Edge Plan summarizes and evaluates the policies contained within the Otay Ranch GDP/SRP, Otay Ranch RMP, MSCP County Subarea Plan, and City of San Diego MSCP Cornerstone Lands as they relate to those areas within the Preserve edge. Lighting requirements include shielded lighting designs that avoid spillover light in the Otay Ranch RMP Preserve. Lighting plans and a photometric analysis would be prepared in conjunction with improvement plans for development areas adjacent to the Preserve to illustrate the location of proposed lighting standards and type of shielding measures. Lighting plans and accompanying photometric analyses must also be prepared in conjunction with street and other improvements proposed within the Otay Ranch RMP Preserve to demonstrate that light spillage into the Preserve would be avoided to the greatest extent possible.

Increased human activity in PV2 and PV3 (specifically Proctor Valley Road) is expected to result in long-term noise effects in the area. Noise is expected to be greatest during daylight hours and, therefore, would be more of a disturbance to those species that are active during the daytime. Nocturnal wildlife are not expected to be significantly impacted while foraging or moving in open space areas. Noise pollution is not anticipated to decrease breeding of any special-status species. Development-related noise, such as traffic, operation of landscape maintenance equipment and tools (e.g., mowers, blowers, trimmers, wood chippers), recreation at parks, and loud music from vehicles and residences, can have an effect on wildlife. The Preserve Edge Plan provides for a 100-buffer between the Otay Ranch RMP Preserve and development (RH Consulting Group et al. 2019). The Preserve edge would act as a buffer for noise generated from development. In addition, when single-family homes are located adjacent to the Otay Ranch RMP Preserve, 6-foot-high solid walls would provide additional noise attenuation. Uses in or adjacent to the Otay Ranch RMP Preserve that would have noise impacts that are not reduced by the Preserve edge would 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.

Findings: PV2 and PV3 are located in proximity to an identified corridor and may have an indirect impact on wildlife movement within those corridors. The Preserve Edge Plan provides specific requirements necessary to reduce human disturbances such as noise and lighting (e.g., lighting standards, type of bulb, wattage, and shielding restrictions into the Preserve). Additional measures within the Preserve Edge Plan include park setbacks, limitations on uses, no structures, walls along the perimeter of homes located adjacent to the Preserve, and berms or walls constructed adjacent to commercial areas and/or parks (RH Consulting Group et al. 2019). With these measures, the Proposed Project Amendment would reduce human disturbances on corridor R1. Development within PV2 and PV3 would be in conformance with this criterion.

8. *Barriers, such as roads, will be minimized. Roads that cross corridors should have 10-foot-high fencing that channels wildlife to underpasses located away from interchanges. The length-to-width ratio for wildlife underpasses is less than 2, although this restriction can be relaxed for underpasses with a height of greater than 30 feet.*

   Discussion: PV2 and PV3 do not cross any wildlife corridors. As discussed throughout this section, PV3 is located adjacent to the R1 wildlife corridors, and the Proposed Project Amendment would avoid development within the majority of PV3, and therefore would expand upon the required width to facilitate wildlife movement within this corridor. Therefore, the development within PV2 and PV3 would not create barriers to wildlife corridors. Three wildlife crossings would be provided under Proctor Valley Road to allow for wildlife movement through natural topography in conformance with the Otay Ranch GDP/SRP and Otay Ranch RMP requirements (Figure 9), and would be designed to comply with all necessary length-to-width ratios and fencing requirements. The wildlife crossings would be designed in conformance with accepted standards and are discussed in detail within the Biological Resources Technical Report for the Approved Project (Dudek 2018).

   Findings: The Development Footprint of PV2 and PV3 would not include any wildlife corridors and, thus, would not involve construction of barriers within corridors or linkages. Development would not occur within the majority of PV3, and three wildlife crossings would be provided along Proctor Valley Road. These three Proctor Valley Road crossings are not located within PV2 or PV3. Since PV2 and PV3 would not create barriers to wildlife movement within R1, development of PV2 and PV3 would be in conformance with this criterion.

9. *Where possible at wildlife crossings, road bridges for the vehicular traffic rather than tunnels for wildlife use will be employed. Box culverts will only be used when they can achieve the wildlife crossing/movement goals for a specific location. Crossings will be designed as follows: sound insulation materials will be provided; the substrate will be left in a natural condition 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.*

   As stated in Item 8, above, wildlife crossings are not required within PV2 and PV3; therefore, this criterion does not apply.

10. *If continuous corridors do not exist, archipelago (or steppingstone) corridors may be used for short distances. For example, the gnatcatcher may use disjunct patches of sage scrub for dispersal if the distance involved is under 1–2 miles.*

    Discussion: A continuous corridor (R1) is located outside of PV2 and PV3. As discussed in detail in this section, the Proposed Project Amendment would maintain the width for this corridor as recommended in the Wildlife Corridors Studies Report (Ogden 1992), and provides measures to reduce human disturbances on the corridor, required wildlife crossings, and a 100-foot buffer between the corridor and habitable structures. Since continuous corridors exist within the Proposed Project Amendment area but outside of PV2 and PV3, archipelago (or steppingstone) corridors are not required.

    Findings: Continuous corridors exist adjacent to the Proposed Project Amendment area, which includes PV2 and PV3; therefore, archipelago (or steppingstone) corridors are not required.

2.3 Section 86.506 – Habitat-Based Mitigation

Section 86.506 of the BMO outlines the process for determining mitigation requirements for sensitive habitats (County of San Diego 2010). To determine the mitigation requirements for the impacts to habitat from the development of PV2 and PV3, it first must be determined whether the impact site and the proposed mitigation site qualify as BRCAs.

Section 86.506 outlines the requirements for determining whether land qualifies as a BRCA. The impact site is a BRCA if it meets one or more of the following criteria (County of San Diego 2010):

a. The land is shown as pre-approved mitigation area on the wildlife agencies' the pre-approved mitigation map (Attachment F of the BMO).
b. The land is located within an area of habitat that contains biological resources that support or contribute to the long-term survival of sensitive species, which determination is based on a biological analysis approved by the Director, and is adjacent or contiguous to preserved habitat that is within the pre-approved mitigation area on the wildlife agencies pre-approved mitigation map (as shown on Attachment F of the BMO).
c. The land is part of a regional linkage/corridor.
d. The land is shown on the Habitat Evaluation Map (Attachment J of the BMO) as very high or high and links significant blocks of habitat.
e. The land consists of or is within a block of habitat greater than 500 acres in an area of diverse and undisturbed habitat that contributes to the conservation of sensitive species.
f. The land contains a high number of sensitive species and is adjacent or contiguous to surrounding undisturbed habitats, or contains soil derived from geological formations known to support sensitive species.

In addition to the previously mentioned criteria, the MSCP Plan (MSCP 1998) identifies 16 BRCAs and associated habitat linkages within the MSCP study area. Figure 2-2, Generalized Core and Biological Resources Area and Linkages, in the MSCP Plan depicts PV2 and PV3 entirely within the Jamul Mountains BRCA (Figure 7).

PV2 and PV3 would be considered part of the larger BRCAs because they meet the following requirements: the parcels are shown on the pre-approved mitigation map, each parcel contains biological resources that support or contribute to the long-term survival of sensitive species and is adjacent to preserved habitat, portions of the parcels are very high or high quality habitat, and each parcel is within a block of habitat greater than 500 acres.

Impacts from development of PV2 and PV3 would be mitigated within the Otay Ranch RMP Preserve and be in an area designated as a BRCA. If mitigation is not located within a BRCA, then the mitigation ratios would be revised, and additional mitigation would be required. Impacts and mitigation requirements are outlined in Table 4. Tiers are based on the List of San Diego County Vegetation Communities and Tier Levels within the MSCP County Subarea Plan (County of San Diego 1997, Table 4-7) and Attachment J of the BMO (County of San Diego 2010). Mitigation ratios are based on the mitigation ratios in the MSCP County Subarea Plan (Table 4-8) and Attachment K of the BMO. The Development Footprint acreages in PV2 and PV3 represented in Table 4 do not include 6.2 acres of Conserved Open Space. Although this 6.2-acre area is currently designated as development, this area has been identified as potential mitigation for Proposed Project Amendment impacts and would not be impacted by development of PV2.

Table 4. Mitigation Requirements for Impacts to Tier II and III Habitats Based on MSCP County Subarea Plan Tier Requirements

Habitat Types/Vegetation Communities	Code*	PV2 and PV3 Development Footprint (acres)	Mitigation Site – BRCA		Mitigation Site – Not BRCA	
			Mitigation Ratio	*Required Mitigation (acres)*	*Mitigation Ratio*	*Required Mitigation (acres)*
Tier II						
Diegan coastal sage scrub	32500	37.2	1.5:1	55.8	2:1	74.4
Diegan coastal sage scrub (disturbed)	32500	4.8	1.5:1	7.2	2:1	9.6
Subtotal of Tier II Habitats		*42.0*	—	*63.0*	—	*84.0*
Tier III						
Non-native grassland	42200	0.8	1:1	0.8	1.5:1	1.2
Subtotal of Tier III Habitats		*0.8*	—	*0.8*	—	*1.2*
Totals (acres)		**42.8**	**63.8**		**85.2**	

MSCP = Multiple Species Conservation Program; BRCA = Biological Resource Core Area.
* Oberbauer et al. 2008.

Mitigation for Otay Ranch impacts, including impacts to PV2 and PV3, must conform to the provisions of the Otay Ranch RMP, including the requirement that the applicant convey to the Otay Ranch RMP Preserve 1.188 acres of land for every 1 acre slated for development (Otay Ranch RMP Preserve Conveyance Obligation). This Otay Ranch RMP mitigation requirement, including its 1.188 land conveyance ratio, is referenced in Section 10.5.A.2 of the County of San Diego MSCP Subarea Plan Implementing Agreement where the County's required mitigation for the MSCP County Subarea Plan includes the contribution of the 11,375-acre Otay Ranch RMP Preserve (USFWS et al. 1998).

The Otay Ranch RMP excludes areas that include common uses, such as schools, parks, and arterial roadways, from the required mitigation/conveyance. Within PV2, 3.6 acres of common uses is associated with the on-site water tank and access road. Common uses within PV3 include Proctor Valley Road within the Development Footprint (3.0 acres). Thus, PV2 and PV3, which would impact 50.7 acres, would be required to convey 52.4 acres of Otay Ranch RMP Preserve lands (50.7 acres minus 6.6 acres of common uses (44.1 acres) × 1.188 = 52.4 acres). Because the BMO mitigation requirements are more stringent for certain types of habitat, the BMO requires an additional 11.4 acres of mitigation beyond the 52.4 acres required by the Otay Ranch RMP Preserve Conveyance Obligation, for a total of 63.8 acres. The mitigation provided for impacts to PV2 and PV3 would be like-kind or up-tiered habitat.

2.4 Section 86.507 – Species-Based Mitigation

Section 86.507 of the BMO specifies the process for determining mitigation requirements for sensitive plant and wildlife populations.

2.4.1 Sensitive Plant Populations

1. ***Critical Populations of Sensitive Plant Species. During project design, first priority shall be given to avoidance of impacts populations of sensitive plant species listed on the Critical Populations of Sensitive Plant Species Within the MSCP subarea (Attachment C of Document No. 0769999 on file with the Clerk of the Board). Where complete avoidance is infeasible, County staff will work with the project proponent to design the project to minimize impacts to the Critical Population to the maximum extent practicable.***

   Discussion: Development of PV2 and PV3 would not result in impacts to any of the plant species listed in Attachment C, Critical Populations of Sensitive Plant Species within the MSCP Subarea, of the BMO. Therefore, this criterion is not applicable.

   Findings: Since development of PV2 and PV3 would not result in impacts to any of the plant species listed in Attachment C of the BMO, this criterion is not applicable.

2. ***Avoidance of Sensitive Plants. Impacts to Narrow Endemic Plant Species Within the MSCP Subarea (Attachment E of Document No. 0769999 on file with the Clerk of the Board), or Sensitive Plant Species, as defined, that meet the criteria in Group A or B shall be avoided to the maximum extent practicable. Where complete avoidance is infeasible, encroachment may be authorized depending on the sensitivity of the individual species and the size of the population except that encroachment shall not exceed 20% of the population on-site. Where impacts are allowed, in-kind preservation shall be required at a 1:1 to 3:1 ratio depending on the sensitivity of the species and population size, as determined in a biological analysis approved by the Director.***

   Discussion: Development of PV2 and PV3 would result in impacts to County Group B species (Table 5).

Table 5. Impacts and Required Mitigation for Sensitive Plant Populations within PV2 and PV3

Species	Regulatory Status: Federal/State/ County/CRPR	PV2 and PV3 Total Impacts[a]	Mitigation Ratio	Required Mitigation	On-Site Preservation[b]	Remaining Mitigation Required
County Group B						
San Diego marsh-elder (*Iva hayesiana*)	None/None/Not Covered/2B.2	2,000	1:1	2,000	1,772	228
Munz's sage (*Salvia munzii*)	None/None/Not Covered/2B.2	372	1:1	372	5,139	N/A
County Group D						
Ashy spike-moss (*Selaginella cinerascens*)	None/None/Not Covered/4.1	<0.01 acres	N/A		2.9 acres	N/A

CRPR = California Rare Plant Rank; County = County of San Diego; N/A = not applicable.

[a] Numbers are individuals unless otherwise noted.

[b] On-site preservation includes populations within the on-site Otay Ranch RMP Conserved Open Space and R-14 in Planning Area 16.

Status Legend
County
Covered = Covered Species in the MSCP Plan
CRPR
2B: Plants rare, threatened, or endangered in California but more common elsewhere

4: Plants of limited distribution – a watch list
Threat Ranks
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% of occurrences threatened/moderate degree and immediacy of threat)

Mitigation for San Diego marsh-elder would include preservation of off-site populations of the species, incorporation of this species within a conceptual upland and wetlands restoration plan, restoration of disturbed areas within the Otay Ranch RMP Preserve, or incorporation into a conceptual wetlands mitigation plan. Mitigation for Munz's sage would be provided through the preservation of locations within the Otay Ranch RMP Preserve (Table 5).

Findings: Mitigation for San Diego marsh-elder and Munz's sage would be provided at a 1:1 ratio. The Otay Ranch RMP Preserve, which is a component of the MSCP Preserve, associated with the Proposed Project Amendment, contains the required mitigation for Munz's sage.

3. ***Mitigation for Sensitive Plant Species in Groups C and D. Sensitive Plant Species, as defined, in Groups C and D shall be protected by using the design requirements and habitat-based mitigation requirements set forth in Section 86.505 and Section 86.506. Notwithstanding the foregoing, when said design requirements and habitat-based mitigation would have the effect of substantially reducing the viability of the affected population or the species, mitigation shall be in-kind, and the mitigation required will be set at a ratio based on the sensitivity of the species and population size, as determined in a biological analysis approved by the Director***.

Discussion: Development within PV3 would result in impacts to one County Group D species: ashy spike-moss (*Selaginella cinerascens*) (Table 5). Mitigation would be provided through use of and adherence to the design requirements and habitat-based mitigation requirements set forth in Sections 86.505 and 86.506 of the BMO. The Group D species observed within PV3 is a California Rare Plant Rank 4.1 species and is known to occur in numerous surrounding areas. Direct impacts to this species are not expected to impact its local, long-term survival. Suitable habitat for this species is present within areas that would be conveyed to the Otay Ranch RMP Preserve; therefore, species-specific and ratio-based mitigation are not required. As shown in Table 5, the areas of preservation within the Proposed Project Amendment area (including Otay Ranch RMP Preserve, Planning Area 16, and areas of Conserved Open Space) would provide preservation of known populations of ashy spike-moss.

Findings: Although development within PV3 would result in impacts to a County Group D species, this species is known to occur in numerous surrounding areas, and no impacts to its local, long-term survival are expected. Mitigation would be provided through preservation of suitable habitat for this species within the Otay Ranch RMP Preserve, which is a component of the MSCP Preserve; therefore, this criterion is met.

2.4.2 Sensitive Animal Populations

1. **Rare, Narrow, Endemic Animal Species. Impacts to Rare, Narrow Endemic Animal Species Within the MSCP subarea (Attachment D of Document No. 0769999 on file with the Clerk of the Board) shall be avoided to the maximum extent practicable. Avoidance requirements shall meet any species specific requirements set forth in Table 3-5 of the MSCP [County Subarea] Plan including any applicable limitations on clearing of occupied habitat. Where complete avoidance is infeasible, projects shall be designed to avoid any significant reduction in species viability.**

   Discussion: The following species listed in Attachment D of the BMO do not have a potential to occur within the Proposed Project Amendment area: Pacific pocket mouse (*Perognathus longimembris pacificus*), American peregrine falcon (*Falco peregrinus anatum*), California least tern (*Sternula antillarum browni*), Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), Ridgway's rail (*Rallus obsoletus levipes*), California black rail (*Laterallus jamaicensis coturniculus*), yellow-billed cuckoo (*Coccyzus americanus*), southwestern willow flycatcher (*Empidonax traillii extimus*), coastal cactus wren, least Bell's vireo (*Vireo bellii pusillus*), northwestern pond turtle (*Actinemys marmorata*), arroyo toad (*Anaxyrus californicus*), California red-legged frog (*Rana draytonii*), tidewater goby (*Eucyclogobius newberryi*), and Riverside fairy shrimp (*Streptocephalus woottoni*).

   Two wildlife species listed in Attachment D of the BMO, golden eagle and San Diego fairy shrimp (*Branchinecta sandiegonensis*), are known to occur within the overall Proposed Project Amendment area. One species, burrowing owl, has a potential to occur but has not been directly observed. Based on surveys conducted between 2014 and 2016, no occurrences of San Diego fairy shrimp were detected within PV2 or PV3, and no observations of burrowing owl occurred. Surveys for San Diego fairy shrimp were conducted in road ruts within PV3. There are no vernal pools located within PV2 or PV3. Although the MSCP Plan identifies San Diego fairy shrimp as a Covered Species, the County has taken the position that, based on a 2006 federal court decision, the MSCP Plan's protections for this species are inadequate for purposes of providing take coverage under the federal Endangered Species Act. Therefore, impacts to San Diego fairy shrimp or its habitat must be assessed and mitigated on a project-specific basis. The Proposed Project Amendment would avoid all vernal pools and 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 preventive mitigation measures for this species that, if a take permit is required, includes compliance with any permit conditions required by USFWS for take of San Diego fairy shrimp. Focused surveys conducted within the Proposed Project Amendment area delineated suitable habitat for burrowing owl, but no suitable habitat occurs within PV2 or PV3. Preconstruction surveys for burrowing owl would be conducted within the Development Footprint to ensure that these species have not migrated onto PV2 or PV3. Discussion of golden eagle is provided in Section 2.2.5.1, Preserve Design Criteria (Attachment G), under Item 8.

   Findings: Three species listed in Attachment D of the BMO are known to occur or have the potential to occur within the Proposed Project Amendment area: San Diego fairy shrimp, burrowing owl, and golden eagle. San Diego fairy shrimp and burrowing owl have not been observed within PV2 or PV3; consequently, no significant impacts to these species are expected. Nevertheless, the County is requiring the following preventive mitigation measures for these species: if a take permit is required for San Diego fairy shrimp, the Proposed Project Amendment must comply with any permit conditions required by USFWS, and preconstruction surveys must occur for burrowing owl within the Development Footprint to ensure that the

species has not migrated into areas proposed for grading or other disturbance. Discussion of golden eagle is provided in Section 2.2.5.1 under Item 8. Section 2.2.5.1 provides an analysis of impacts to suitable foraging habitat and preservation of such habitat, along with a discussion on how development of PV2 and PV3 would not interfere with the conservation goals for golden eagle as outlined in Table 3-5 of the MSCP Plan. Therefore, this criterion is met.

2. **Impacts to Burrowing Owl Habitat. Impacts to Burrowing Owl Habitat shall be avoided to the maximum extent practicable. Where impacts are unavoidable, the following mitigation measures shall be required: (1) any impacted individuals must be relocated out of the impact area using passive or active methodologies approved by the Wildlife Agencies; (2) mitigation for impacts to occupied habitat, must be through the conservation of occupied burrowing owl habitat or lands appropriate for restoration, management and enhancement of burrowing owl nesting and foraging requirements at a ratio of no less than 1:1 for the territory of the burrowing owl.**

   Discussion: Burrowing owls were not observed within PV2 or PV3 during surveys conducted 2014 through 2016. Therefore, PV2 and PV3 are not currently considered occupied by this species. In addition, these parcels do not contain suitable habitat, as identified in the 2014 habitat assessment, for burrowing owl (Dudek 2018).

   To ensure that burrowing owl is not impacted by the Proposed Project Amendment, the applicant would implement the following mitigation measure from the Final EIR (County of San Diego 2019):

   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.

   Findings: Burrowing owls were not observed within PV2 or PV3; therefore, these areas are not currently considered occupied by this species. Further, these parcels do not contain suitable habitat for burrowing owl. A preconstruction survey would be conducted to ensure that the Development Footprint does not contain any occupied burrows. With this mitigation measure, the criterion is met.

3. **Impacts to Arroyo Toad Habitat. Impacts to upland habitats within 1 km of riparian habitat which supports or is likely to support arroyo toad shall be minimized to the maximum extent practicable.**

   Discussion: PV2 and PV3 do not contain suitable habitat for arroyo toad. A habitat assessment was completed within the Proposed Project Amendment area, which includes PV2 and PV3. It was determined that this species has a low to no potential to occur within the Proposed Project Amendment area. The details of this habitat assessment are provided in the Biological Resources Technical Report for the Approved Project (Dudek 2018).

   Findings: PV2 and PV3 do not contain suitable habitat for arroyo toad; therefore, this species is not expected to occur. This criterion is not applicable to the development of PV2 or PV3 because there is no suitable habitat for arroyo toad within these areas.

4. Management Conditions for *Vireo belli pusillus*, Least Bell's Vireo. Conditions shall be developed for projects located adjacent to least Bell's vireo habitat to monitor and control the population of brown-headed cowbirds.

   Discussion: PV2 and PV3 neither contain suitable riparian habitat for least Bell's vireo nor are located adjacent to suitable riparian habitat.

   Findings: PV2 and PV3 neither contain suitable habitat for least Bell's vireo nor are located adjacent to suitable habitat. This criterion is not applicable to the development of PV2 or PV3 because there is no suitable riparian habitat within these areas.

5. *Other Sensitive Animal Species. For other Sensitive animal species as defined in Section 86.508, impacts will be mitigated through habitat based mitigation requirements as set forth in Section 86.506. In any case in which mitigation would have the effect of substantially reducing the viability of the affected population or the species, mitigation shall be in kind and the mitigation required will be set at a ratio based on the sensitivity of the species and the population size, as determined in a biological analysis approved by the Director.*

   Discussion: The BMO requires that impacts to other sensitive species, as defined in Section 86.508, be mitigated through habitat mitigation requirements as set forth in Section 86.506 (County of San Diego 2010). Other sensitive species not listed in Attachment D of the BMO from development of PV2 or PV3 would include the following species with known observations in these areas: western spadefoot (*Spea hammondii*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), California horned lark (*Eremophila alpestris actia*), white-tailed kite (*Elanus leucurus*), and San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*). Other sensitive species with a potential to occur in these areas include orange-throated whiptail, San Diego banded gecko (*Coleonyx variegatus abbotti*), red diamond rattlesnake (*Crotalus ruber*), rosy boa (*Lichanura trivirgata*), Blainville's horned lizard, Coronado skink (*Plestiodon skiltonianus interparietalis*), Cooper's hawk (foraging habitat only), Southern California rufous-crowned sparrow, grasshopper sparrow (*Ammodramus savannarum* [nesting]), Bell's sage sparrow (*Artemisiospiza belli belli*), long-eared owl (*Asio otus*), red-shouldered hawk (*Buteo lineatus* [foraging habitat only]), turkey vulture (*Cathartes aura* [foraging habitat only]), northern harrier (*Circus cyaneus* [foraging only]), loggerhead shrike (*Lanius ludovicianus* [nesting and foraging habitat]), western bluebird, common barn-owl (*Tyto alba*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), Yuma myotis (*Myotis yumanensis*), San Diego desert woodrat (*Neotoma lepida intermedia*), big free-tailed bat (*Nyctinomops macrotis*), mule deer, cougar, American badger, Hermes copper butterfly, and Quino checkerspot butterfly. Impacts to suitable habitat for these species would be mitigated through preservation of habitat, as described in Section 2.3, Section 86.506 – Habitat-Based Mitigation, and Section 2.2.5.1, Item 2, of this BMO Findings Report.

   The following additional mitigation measures, as described further in the Otay Ranch Village 14 and Planning Areas 16/19 EIR and summarized here, would be implemented to reduce impacts to these species (County of San Diego 2019):

   1. Biological monitoring shall be required to prevent disturbance to areas outside the limits of grading. Prominently colored temporary fencing and signage shall be installed prior to construction wherever the limits of grading are adjacent to Otay Ranch RMP Preserve, Conserved Open Space, and other sensitive biological resources.
   2. To protect the Otay Ranch RMP Preserve from unauthorized entry or disturbance, permanent signage and fencing shall be placed, as needed, around the perimeter of the Otay Ranch RMP Preserve and Conserved Open Space.

3. 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 removal of habitat on the proposed area of disturbance must occur during the nesting season, the applicant shall retain a County-approved biologist to conduct a preconstruction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. If nests are present, then an appropriate buffer surrounding the nest shall be established until nesting is complete.
4. If take authorization is required for impacts to Quino checkerspot butterfly, the applicant shall comply with any and all conditions, including preconstruction surveys, that USFWS may require for take of Quino checkerspot butterfly pursuant to the federal Endangered Species Act. Preconstruction survey shall be conducted in accordance with USFWS protocols unless 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 shall comply with any and all conditions for Quino checkerspot butterfly.
5. If take authorization is required for impacts to San Diego fairy shrimp, the applicant shall comply with any and all conditions, including preconstruction surveys, that USFWS may require for take pursuant to the federal Endangered Species Act.
6. To ensure that no burrowing owls have migrated into the Development Footprint, a preconstruction burrowing owl survey shall be conducted.
7. No clearing, grading, or grubbing activities may occur within habitat identified by a qualified biologist as being occupied by coastal California gnatcatcher during the nesting season for the species (February 15 through August 15, annually). If construction must occur during the nesting season, a nesting survey for coastal California gnatcatcher shall be conducted prior to the onset of construction. Construction-related noise levels in coastal California gnatcatcher-occupied habitat within 500 feet of construction activity shall not exceed 60 dBA L_{eq} or preconstruction ambient noise levels, whichever is greater. 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 Proposed Project Amendment, or noise attenuation measures, such as temporary sound walls, shall be implemented to reduce noise levels to below 60 dBA L_{eq} or below existing ambient noise levels, whichever is greater.
8. Lighting of all developed areas adjacent to the 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.
9. Specific to Quino checkerspot butterfly, prior to the issuance of the first grading permit that impacts habitat identified as suitable for Quino checkerspot butterfly, the Proposed Project Amendment shall demonstrate to the satisfaction of the Director of Planning and Development Services (or his/her designee) that it has secured from USFWS any necessary take authorization for Quino checkerspot butterfly through (1) the Section 7 Consultation, (2) Section 10 incidental take permit

requirements, or (3) the County Subarea Plan Quino Checkerspot Butterfly Addition, if/when approved. In addition, prior to the issuance of the first grading permit that impacts habitat identified as suitable for Quino checkerspot butterfly, the Proposed Project Amendment shall prepare a long-term Quino Checkerspot Butterfly Management/Enhancement Plan.

Findings: PV2 and PV3 would result in impacts to habitat for other sensitive animal species defined in Section 86.508 of the BMO. Impacts to suitable habitat for these species would be mitigated through preservation of habitat, as described in Section 2.2.5.1, Item 2, and Section 2.3 of this BMO Findings Report. Additional measures, as outlined previously, would be provided to reduce impacts to sensitive animal species. Therefore, this criterion is met.

2.4.3 Vernal Pools

Impacts to vernal pools and their watersheds in naturally occurring complexes and wetlands shall be avoided to the maximum extent practicable.

Discussion: Based on surveys conducted between 2014 and 2016, PV2 and PV3 do not contain vernal pools (Dudek 2018).

Findings: This criterion is not applicable to development of PV2 or PV3 because these areas do not contain vernal pools.

2.4.4 Grading Limitations for Specific Species

The following limitations shall apply to grading activities in areas where the identified species occur:

a. Coastal cactus wren – No clearing of occupied habitat shall occur February 15 through August 15.
b. Coastal California gnatcatcher – No clearing of occupied habitat shall occur March 1 through August 15.
c. Least Bell's vireo – No clearing of occupied habitat shall occur March 15 through September 15.
d. Southwestern willow flycatcher – No clearing of occupied habitat shall occur May 1 through September 2.

Discussion: Only one species, coastal California gnatcatcher, listed within this criterion has a potential to nest within PV2 and PV3. As stated in Section 2.4.2, Sensitive Animal Populations, no clearing, grading, or grubbing activities may occur within habitat identified by a qualified biologist as being occupied by coastal California gnatcatcher during the nesting season for the species (February 15 through August 15, annually). Specific to coastal California gnatcatcher and nesting raptors, construction-related noise levels in coastal California gnatcatcher–occupied habitat within 500 feet of any construction activity would not exceed 60 dBA L_{eq} or preconstruction ambient noise levels, whichever is greater. Proposed Project Amendment construction within 500 feet of occupied habitat would occur outside of the breeding season, if possible. If necessary, construction activities during the breeding season would be managed to limit noise levels in occupied habitat within 500 feet of the Proposed Project Amendment area, or noise attenuation measures, such as temporary sound walls, would be implemented to reduce noise levels to below 60 dBA L_{eq} or below existing ambient noise levels, whichever is greater.

Finding: As discussed previously, the Proposed Project Amendment would adhere to the mitigation measure that reduces impacts to nesting coastal California gnatcatchers. No other species listed in this criterion has a potential to occur within PV2 or PV3. Therefore, this criterion is met.

2.4.5 Other Species-Specific Condition Requirements

As set forth in the terms of the MSCP [County Subarea] Plan and/or Subarea Plan, project applicants shall be required to comply with other applicable species specific conditions set forth in Table 3-5 of the MSCP [County Subarea] Plan as a condition of project approval.

Discussion Specific to PV2 and PV3: The Proposed Project Amendment, which includes PV2 and PV3, would comply with other applicable species-specific conditions set forth in Table 3-5 of the MSCP Plan as a condition of Proposed Project Amendment approval, as discussed in Section 2.2.5.1 (Item 8).

Discussion in the Context of the RMP Preserve: The proposed development on PV2 (44.6 acres) and PV3 (6.1 acres) would be consistent with the Otay Ranch RMP Preserve footprint established by the Otay Ranch GDP/SRP and Otay Ranch RMP. Accordingly, the proposed development on PV2 and PV3 would implement the Preserve footprint anticipated by the 11,375-acre Otay Ranch RMP Preserve as depicted in the Otay Ranch RMP. This Preserve footprint, in turn, would be consistent with the hardline Preserve referenced in the MSCP County Subarea Plan Implementing Agreement, which required the County to contribute the 11,375-acre Otay Ranch RMP Preserve as mitigation (USFWS et al. 1998, pp. 29–30). The proposed development on PV2 and PV3 would be consistent with the Implementing Agreement; therefore, the proposed development on PV2 and PV3 would not jeopardize the continued survival of the 85 Covered Species within the dedicated Otay Ranch RMP Preserve. Because the boundaries and total acreage of the MSCP Preserve approved by the Implementing Agreement and the MSCP County Subarea Plan (County of San Diego 1997) would not change with the proposed development on PV2 and PV3, the functionality of the existing MSCP Preserve design would be maintained. The Biological Resources Technical Report for the Approved Project provides additional detail on how the Proposed Project Amendment would comply with any applicable species-specific conditions set forth in Table 3-5 of the MSCP Plan. Examples include not placing development within 4,000 feet of an occupied golden eagle nest, protecting against edge effects, minimizing impacts to sensitive birds during the nesting season, and maintaining wildlife corridors.

Findings: The Proposed Project Amendment, which consists of PV2 and PV3, would comply with other applicable species-specific conditions set forth in Table 3-5 of the MSCP Plan as a condition of approval, as discussed in Section 2.2.5.1 (Item 8) and summarized above. Therefore, this criterion is met.

2.5 Conclusion

As stated above, the County Board, when it approved the Approved Project on June 26, 2019, also adopted findings demonstrating that the Approved Project's contemplated development on PV1, PV2, and PV3 could be accomplished in a manner consistent with the BMO. This BMO Findings Report draws the same conclusion with respect to the Proposed Project Amendment and the development it contemplates (and avoids) on these same parcels.

This BMO Findings Report focuses specifically on the Proposed Project Amendment's impacts within PV2 and PV3, as the Proposed Project Amendment does not contemplate any development in PV1. The BMO analysis and findings outline how development proposed for PV2 and PV3 would conform to the criteria and objectives of the BMO. Although development of these parcels would result in some loss of habitat for sensitive wildlife species and populations of sensitive plant species, development of PV2 and PV3 would satisfy the criteria set forth in the BMO.

The Otay Ranch RMP Preserve boundaries would not be changed by development of PV2 and PV3, and the functionality of the Otay Ranch RMP Preserve and the existing habitat linkages and corridors would remain intact. The Otay Ranch RMP Preserve is a component of the MSCP Preserve. Mitigation for development impacts to PV2 and PV3, as calculated by the BMO requirements, would result in the conveyance of 63.8 acres of in-kind habitat to the Otay Ranch RMP Preserve. The 63.8 acres of BMO-calculated mitigation for PV2 and PV3 exceeds the Otay Ranch RMP Preserve Conveyance Obligation by approximately 11.4 acres (50.7 acres of impacts mitigated, minus 6.6 acres of common uses, at the 1.188 ratio totals 52.4 acres (44.1 × 1.188 = 52.4). The 63.8 acres of required mitigation would be met through the Proposed Project Amendment's overall conveyance of 435.2 acres of habitat to the Otay Ranch RMP Preserve, and preservation of 24.5 acres of additional habitat designated as Conserved Open Space, and by granting a Conservation Easement over 191.5 acres, for a total of 651.2 acres.

Conveyance and preservation of 651.2 acres of land would offset the loss of habitat for sensitive wildlife species and populations of sensitive plant species. Additional mitigation required for impacts to sensitive plants would be provided through on-site preservation or restoration/translocation. The loss of 0.05 acres of unvegetated stream channels would be mitigated at a minimum of 1:1 replacement-to-impact ratio, and the Proposed Project Amendment would be required to obtain ACOE, RWQCB, and CDFW permits. Therefore, with implementation of the previously mentioned mitigation, the proposed development within PV2 and PV3 would be in compliance with the measures set forth in the BMO.

The Development Footprint of PV2 and PV3 would be consistent with the Otay Ranch RMP Preserve footprint established by the Otay Ranch GDP/SRP and Otay Ranch RMP. In addition, the Proposed Project Amendment would reduce development within PV3 by 96% compared to what was anticipated by the Otay Ranch GDP/SRP. Accordingly, PV2 and PV3 would implement the Preserve footprint anticipated by the 11,375-acre Otay Ranch RMP Preserve as depicted in the Otay Ranch RMP. This Preserve footprint, in turn, would be consistent with the hardline Preserve referenced in the County of San Diego MSCP Subarea Plan Implementing Agreement, which required the County to contribute the 11,375-acre Otay Ranch Preserve as mitigation (USFWS et al. 1998, pp. 29–30). Thus, PV2 and PV3 and their proposed Preserve footprint would be consistent with the Implementing Agreement, and the PV2 and PV3 Development Footprint would not jeopardize the continued survival of the 85 Covered Species within the dedicated Otay Ranch RMP Preserve. Because the boundaries and total acreage of the MSCP Preserve designated by the Implementing Agreement and the MSCP County Subarea Plan (County of San Diego 1997) would not change with development of PV2 and PV3, the functionality of the existing MSCP Preserve design would be maintained.

3 Glossary

Approved Project. The project described in Otay Ranch Village 14 and Planning Areas 16/19 Tentative Map 5616, Specific Plan 16-002, and the certified Final EIR, which the County of San Diego (County) approved on June 26, 2019. The Approved Project permits 1,119 residential units within a Project Area of approximately 1,369 acres. The Development Footprint of the Approved Project is 809 acres.

Biological Study Area. The Biological Study Area combines the extent of the "Project Area" defined for the Approved Project and the "Project Area" for the EIR Land Exchange Alternative. Therefore, the Biological Study Area is larger than the Proposed Project Amendment Project Area. The total Biological Study Area, approximately 2,900 acres, covers the entire Proposed Project Amendment Project Area. The Biological Study Area includes land owned by the Project owner/applicant as well as land owned by CDFW. The Biological Study Area also includes a 100-foot buffer from the Proposed Project Amendment Project Area as required by the County. The full extent of biological resources mapped during the evaluation of the Approved Project and the EIR Land Exchange Alternative can be found within the technical reports prepared for the Approved Project and the alternative.

Conserved Open Space. Conserved Open Space refers to 24.5 acres of land within the Proposed Project Amendment Project Area, which, while designated in the Otay Ranch City of Chula Vista General Development Plan/County of San Diego Otay Subregional Plan Volume II (Otay Ranch GDP/SRP) for residential uses within Village 14 and Planning Areas 16/19, would not be developed as part of the Proposed Project Amendment. Instead, the Conserved Open Space would be preserved on site and (1) added to the Otay Ranch Resource Management Plan (RMP) Preserve (through a future RMP Amendment), (2) managed under a separate Resource Management Plan, or (3) used to mitigate impacts to the City of San Diego MSCP Cornerstone Lands. The Conserved Open Space areas are located adjacent to Otay Ranch RMP Preserve and would be conserved by recording a biological open space easement over the land. There is 6.2 acres of Conserved Open Space in PV2.

Development Footprint. The "Development Footprint" includes areas where there would be either permanent or temporary ground disturbance. In addition, areas of open space, which would be managed by a homeowner's association (private homeowner's association open space), are included in the Development Footprint. The Development Footprint includes all on-site development, off-site improvements, and impacts resulting from infrastructure and other allowable uses within the Otay Ranch RMP and MSCP Preserve according to Section 1.9.3 of the MSCP County Subarea Plan (County of San Diego 1997). The Development Footprint also includes areas of fuel modification.

Otay Ranch RMP Preserve. The Otay Ranch RMP Preserve includes areas defined as Preserve in the MSCP County of San Diego Subarea Plan Implementing Agreement (USFWS et al. 1998), which defines the County's required contribution to the MSCP Preserve. The Otay Ranch RMP provides for the conservation and management of the entire 11,375-acre Otay Ranch RMP Preserve. The Implementing Agreement states that the required mitigation for Otay Ranch includes "protection of the areas identified as preserved in the boundaries of the Otay Ranch project including approximately 11,375 acres" of the Otay Ranch RMP Preserve (USFWS et al. 1998). Therefore, the Otay Ranch RMP Preserve is a subset of the MSCP Preserve. The portion of the Proposed Project Amendment's land use designated as Otay Ranch RMP Preserve is, therefore, referred to as the Otay Ranch RMP Preserve, which includes 278.6 acres in Village 14 and 156.6 acres in Planning Areas 16/19, for a total of 435.2 acres.

Project Area. The total land area for the Proposed Project Amendment as contemplated in the proposed land exchange between the applicant and CDFW.[4] The Project Area consists of approximately 1,283.6 acres currently owned by GDCI Proctor Valley L.P., the owner/applicant; 219.4 acres currently owned by CDFW; and approximately 40.1 acres of off-site improvements, for a total of 1,543 acres.

Proposed Project Amendment. The Proposed Project Amendment reflects proposed changes to the Approved Project that would add 147 units for a total of 1,266 residential units and would reduce the Development Footprint by approximately 230 acres, to a total of 579 acres, within a Project Area of 1,543 acres. The Proposed Project Amendment includes a Revised Tentative Map and Specific Plan Amendment. As contemplated in the Dispute Resolution Agreement, the Proposed Project Amendment assumes and will require a County-initiated amendment to the MSCP County Subarea Plan. Because the amendment to the MSCP County Subarea Plan will be initiated by the County, it is not part of the Proposed Project Amendment.

Revised Tentative Map. The Revised Tentative Map reflects revisions to the June 26, 2019, Approved Tentative Map No. 5616 that are necessary to process and implement the land exchange with CDFW and the Proposed Project Amendment in the County.

Specific Plan Amendment. The Specific Plan Amendment reflects revisions to the June 26, 2019, Approved Specific Plan No. 16-002 that are necessary to process and implement the land exchange with CDFW and the Proposed Project Amendment in the County.

[4] As indicated previously, the land exchange necessary to implement the Proposed Project Amendment must be approved by the Wildlife Conservation Board.

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Appendix ~~D~~E

Biological Resource Core Area Analysis

With respect to Biological Resource Core Areas (BRCAs), the Proposed Project Amendment's impacts on BRCAs would be virtually the same as those of the Approved Project. Specifically, like the Approved Project, the Proposed Project Amendment would not result in "significant degradation" of any BRCA, which Section 4.3.2.1 of the County MSCP Subarea Plan defines "as impacts to 25 percent or more of a BRCA."[8] Using SANGIS land use data, the amount of development that currently exists within each of the three BRCAs as of September 5, 2017, was calculated, and then those data were combined with the Approved Project's impacts to determine how much of each BRCA would be affected after Project construction (Table A). The results show that the Approved Project, when combined with current development and adjacent future development (i.e., Village 13), will not exceed the 25 percent "significant degradation" threshold for the Jamul Mountains, Sweetwater, or Otay Lakes BRCA. These data demonstrate that the Approved Project, even when coupled with total development to date, will not impede the conservation goals for each BRCA as specifically set forth in the MSCP Table 3-2 (see MSCP page 3-17). The same exercise was completed for the Proposed Project Amendment (Table A). Impacts within the Jamul Mountains BRCA are reduced by the Proposed Project Amendment while impacts to the Sweetwater BRCA remain the same and impacts within the Otay Lakes BRCA increase slightly.

Table A. MSCP Plan Biological Resource Core Area Impacts as of 2017 (Acres)

Total Development Based on September 2017 SANGIS Data	Permanent Impacts	Village 13 GDP/SRP Development Footprint	Total Development Impacts	Percent of BRCA Conserved	Percent of BRCA Impacted
Approved Project					
Jamul Mountains BRCA					
19	444	94	557	93%	7%
Sweetwater Reservoir/San Miguel Mountain/Sweetwater River BRCA					
1,495	86	0	1,581	88%	12%
Otay Lakes/Otay Mesa/Otay River Valley BRCA					
2,400	4	668	3,072	82%	18%
Proposed Project Amendment					
Jamul Mountains BRCA					
19	402	94	515	94%	6%
Sweetwater Reservoir/San Miguel Mountain/Sweetwater River BRCA					
1,495	86	0	1,581	88%	12%
Otay Lakes/Otay Mesa/Otay River Valley BRCA					
2,400	7	668	3,075	82%	18%

Notes: GDP/SRP = General Development Plan/Subregional Plan; BRCA = Biological Resource Core Area.

- To make an adequate comparison, areas designated as disturbed, agriculture, and developed land were removed from the total development to date, Approved Project and Proposed Project Amendment Permanent Impacts and Village 13 GDP/SRP development footprint.
- Development to date is based on the 2017 SANDAG land use data. Land uses categorizes which are not considered in the development to date include: open space park or preserve, undevelopable natural area, vacant and undeveloped land, and other recreation – low.
- Development for Village 13 is based on the GDP/SRP proposed development and MSCP Preserve.

[8] Specifically: "…a project would be considered inconsistent if it would result in… significant degradation of the biological value of a biological resource core area, "core linkage" or "constrained linkage" as defined in the Biological Mitigation Ordinance. The habitat value of a biological core resource area is significantly degraded if 25 percent of the biological core area (500 acres or more in size) is impacted."

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