

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.

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 GDCl Proctor Valley L.P. (GDCl), as defined in the Dispute Resolution Agreement effective June 26, 2019, between GDCl, 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 GDCl 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 GDCl (**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 GDCl and for which GDCl 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**

Prepared for:

**GDCI Proctor Valley L.P.
c/o Jackson Pendo Development**

4364 Bonita Road No. 607

Bonita, California 91902

Contact: Liz Jackson

Prepared by:

DUDEK

605 Third Street

Encinitas, California 92024

Contact: Patricia Schuyler

FEBRUARY 2020~~NOVEMBER 2019~~

Table of Contents

<u>SECTION</u>	<u>PAGE NO.</u>
ACRONYMS AND ABBREVIATIONS	III
1 INTRODUCTION	1
1.1 Purpose of the Report	1
1.2 Background and History.....	1
1.3 Proposed Land Exchange Summary.....	2
2 EXISTING CONDITIONS.....	3
2.1 Site Description	3
2.2 Habitat Types and Vegetation Communities.....	3
2.3 Summary of Sensitive Resources within Land Exchange Parcels.....	5
2.3.1 Sensitive Plants Species	5
2.3.2 Sensitive Wildlife Species	8
3 BIOLOGICAL EQUIVALENCY ANALYSIS	11
3.1 Habitat Types and Vegetation Communities.....	11
3.2 Sensitive Resources	12
3.2.1 Sensitive Plant Species	12
3.2.2 Sensitive Wildlife Species	14
3.2.3 Wildlife Movement and Preserve Design	14
3.3 Summary and Conclusions	17
4 REFERENCES CITED.....	21
FIGURES	
1 Project Location	23
2 Regional Planning Context.....	25
3 Proposed Land Exchange	27
4a Biological Resources.....	29
4b Biological Resources.....	31
4c Biological Resources.....	33
4d Biological Resources.....	35
5a 2016 Quino Host Plant Mapping and Quino Checkerspot Butterfly Sightings.....	37
5b 2016 Quino Host Plant Mapping and Quino Checkerspot Butterfly Sightings.....	39
5c 2016 Quino Host Plant Mapping and Quino Checkerspot Butterfly Sightings.....	41
5d 2016 Quino Host Plant Mapping and Quino Checkerspot Butterfly Sightings.....	43
6 Wildlife Corridor and Habitat Linkages	45
7 Biological Resources Core Area	47

TABLES

1 Vegetation Communities and Habitat Types within the Land Exchange Parcels4

2 Special-Status Plant Species within the Land Exchange Parcels6

3 Quino Checkerspot Butterfly Resources and Critical Habitat within the Land Exchange Parcels.....9

4 Vegetation Communities and Habitat Types within the Land Exchange Parcels (acres) 11

5 Special-Status Plant Species within the Land Exchange Parcels 13

6 Biological Resource Core Areas Potential Impacts and Conservation..... 17

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

INTENTIONALLY LEFT BLANK

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 acres¹ 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 hammondi*).

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
<i>Artemisia palmeri</i> San Diego sagewort	None/None Not Covered/4.2	–	2	8	–	10	–	–	–	–	–	–
<i>Bloomeria clevelandii</i> San Diego goldenstar	None/None Covered/1B.1	17	31	72	1,192	1,312	–	–	–	–	–	–
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	None/None Covered/1B.1	–	83	–	–	83	–	–	–	–	–	–
<i>Dichondra occidentalis</i> Western dichondra	None/None Not Covered/4.2	0.17 acres	–	–	<0.01 acres	0.18 acres	–	–	–	–	–	–
<i>Dudleya variegata</i> Variegated dudleya	None/None Covered, NE/1B.2	35	–	–	–	35	–	–	–	–	–	–
<i>Ferocactus viridescens</i> San Diego barrel cactus	None/None Covered/2B.1	36	–	–	–	36	–	–	–	–	–	–
<i>Harpagonella palmeri</i> Palmer's grapplinghook	None/None Not Covered/4.2	40	–	–	–	40	–	–	–	–	–	–
<i>Holocarpa virgata</i> ssp. <i>elongata</i> Graceful tarplant	None/None Not Covered/4.2	5	15	–	–	20	–	–	–	–	–	–
<i>Iva hayesiana</i> San Diego marsh-elder	None/None Not Covered/2B.2	653	413	282	–	1,348	401	–	–	–	4	404
<i>Juncus acutus</i> ssp. <i>leopoldii</i> Southwestern spiny rush	None/None Not Covered/4.2	–	31	12	–	43	–	–	–	–	–	–
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper- grass	None/None Not Covered/4.3	112	–	–	–	112	–	–	–	–	–	–
<i>Pentachaeta aurea</i> ssp. <i>aurea</i> 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
<i>Salvia munzii</i> Munz's sage	None/None Not Covered/2B.2	74	163	2,086		2,323	413	25	69	180	–	686
<i>Selaginella cinerascens</i> 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
<i>Stipa diegoensis</i> San Diego County needle grass	None/None Not Covered/4.2	–	42	79	20	141	–	–	–	–	–	–
<i>Viguiera laciniata</i> 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 plants⁴. 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
<i>Subtotal</i>	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
<i>Subtotal</i>	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

INTENTIONALLY LEFT BLANK

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
<i>Subtotal</i>	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
<i>Subtotal</i>	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
<i>Subtotal</i>	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
<i>Subtotal</i>	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 Project⁷ (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
<i>Artemisia palmeri</i> San Diego sagewort	None/None Not Covered/4.2	10	—	+10
<i>Bloomeria clevelandii</i> San Diego goldenstar	None/None Not Covered/1B.14.2	1,312	—	+1,312
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	None/None Covered/1B.1	83	—	+83
<i>Dichondra occidentalis</i> Western dichondra	None/None Covered/1B.1 None/None Not Covered/4.2	0.18 acres	—	+0.18 acres
<i>Dudleya variegata</i> Variegated dudleya	None/None Covered, NE/1B.2None/None Not Covered/4.2	35	—	+35
<i>Ferocactus viridescens</i> San Diego barrel cactus	None/None Covered/2B.1None/None Covered, NE/1B.2	36	—	+36
<i>Harpagonella palmeri</i> Palmer's grapplinghook	None/None Not Covered/4.2None/None Covered/2B.1	40	—	+40
<i>Holocarpha virgata</i> ssp. <i>elongata</i> Graceful tarplant	None/None Not Covered/4.2	20	—	+20
<i>Iva hayesiana</i> San Diego marsh-elder	None/None Not Covered/4.22B.2	1,348	-404	+944
<i>Juncus acutus</i> ssp. <i>leopoldii</i> Southwestern spiny rush	None/None Not Covered/4.2None/None Not Covered/2B.2	43	—	+43
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	None/None Not Covered/4.32	112	—	+112
<i>Pentachaeta aurea</i> ssp. <i>aurea</i> Golden-rayed pentachaeta	None/None Not Covered/4.23	12,477	—	+12,477
<i>Salvia munzii</i> Munz's sage	None/None Not Covered/4.22B.2	2,323	-686	+1,637
<i>Selaginella cinerascens</i> Ashy spike-moss	None/None Not Covered/2B.24.1	3.83 acres	<0.01 acres	+3.83 acres
<i>Stipa diegoensis</i> San Diego County needle grass	None/None Not Covered/4.14.2	141	—	+141
<i>Viguiera laciniata</i> San Diego County viguiera	None/None Not Covered/4.2	9,95352	—	+9,9530

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 cryptogammic 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 butterfly⁸ 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
<i>Subtotal</i>	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
<i>Subtotal</i>	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:

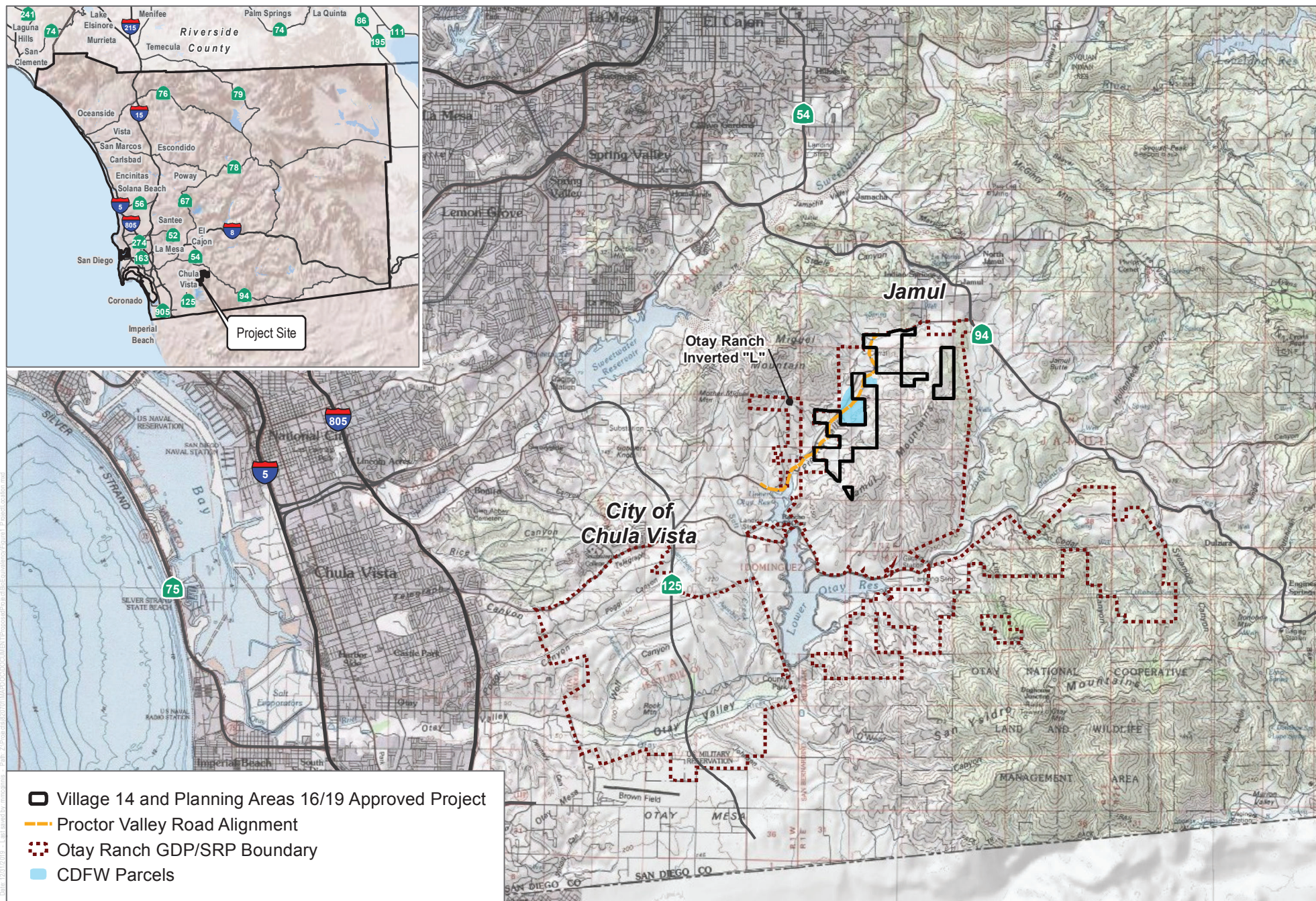
- Effects on significantly and sufficiently conserved habitats (i.e., whether the exchange maintains or improves the conservation, configuration, or status of significantly or sufficiently conserved habitats).
- Effects on covered species (i.e., whether the exchange maintains or increases the conservation 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).

INTENTIONALLY LEFT BLANK

4 References Cited

- City of Chula Vista and County of San Diego. 1993. *Otay Ranch City of Chula Vista General Development Plan/County of San Diego Otay Subregional Plan*, Volume 2. Applicant: Otay Vista Associates. Prepared for Otay Ranch Joint Planning Project. Approved by City of Chula Vista and County of San Diego. October 28, 1993. Last amended May 26, 2015.
- County of San Diego. 1997. *Multiple Species Conservation Program: County of San Diego Subarea Plan*. Prepared by the County of San Diego in conjunction with the U.S. Fish and Wildlife Service and California Department of Fish and Game. Adopted October 22, 1997. Accessed January 2018. http://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/SCMSCP/MSCP_County_Subarea_Plan.pdf.
- County of San Diego. 2019. *Final Environmental Impact Report Otay Ranch Village 14 and Planning Areas 16/19 Project*. State Clearinghouse # SCH 2016121042. GPA 16-008, SP 16-002, REZ 16-006, TM 5616, ER-16-19-006 and STP 16-027. May 2019.
- MSCP (Multiple Species Conservation Program). 1998 *Final MSCP Plan*. Prepared by: MSCP Policy Committee and MSCP Working Group. San Diego, California. August 1998. <http://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/SCMSCP/FinalMSCPProgramPlan.pdf>.
- Ogden. 1992. *Baldwin Otay Ranch Wildlife Corridors Studies: Phase 1 Report*. Prepared for the Otay Ranch Project Team. December 1992.

INTENTIONALLY LEFT BLANK

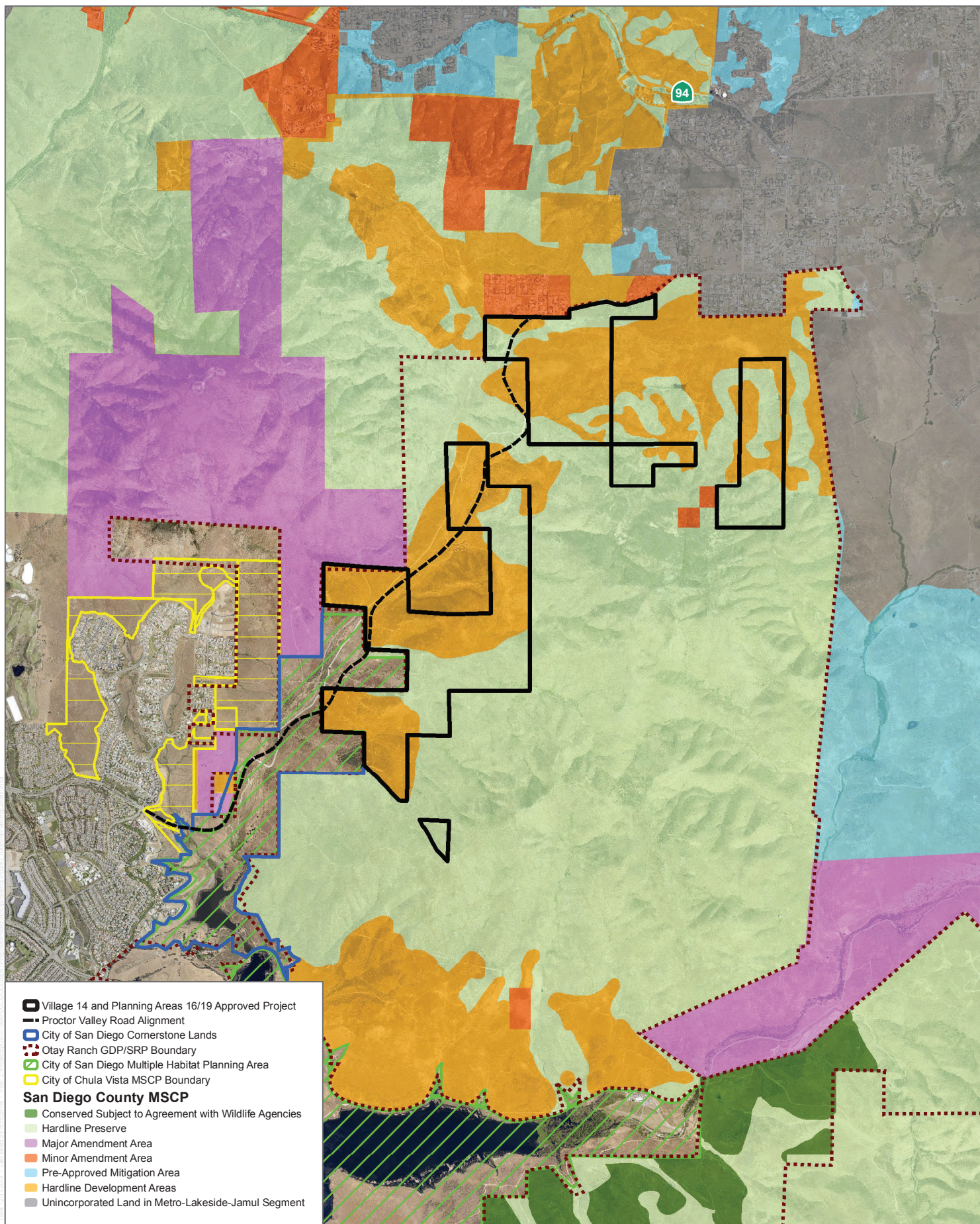


SOURCE: USGS 7.5-minute Quadrangle; Hunsaker 2017; County of San Diego 1997

FIGURE 1

Project Location

INTENTIONALLY LEFT BLANK



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

DUDEK



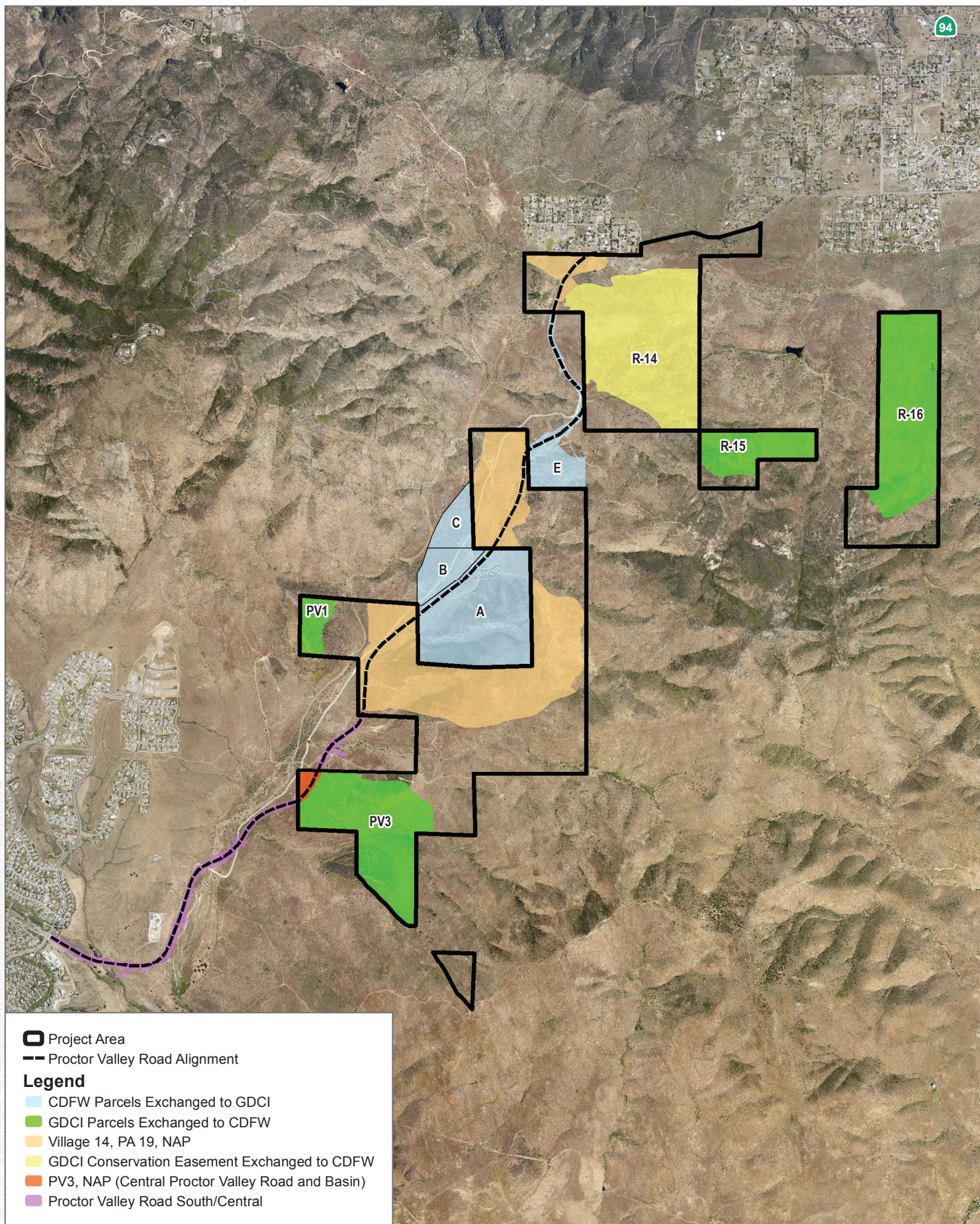
0 2,000 4,000
Feet

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

FIGURE 2

Regional Planning Context

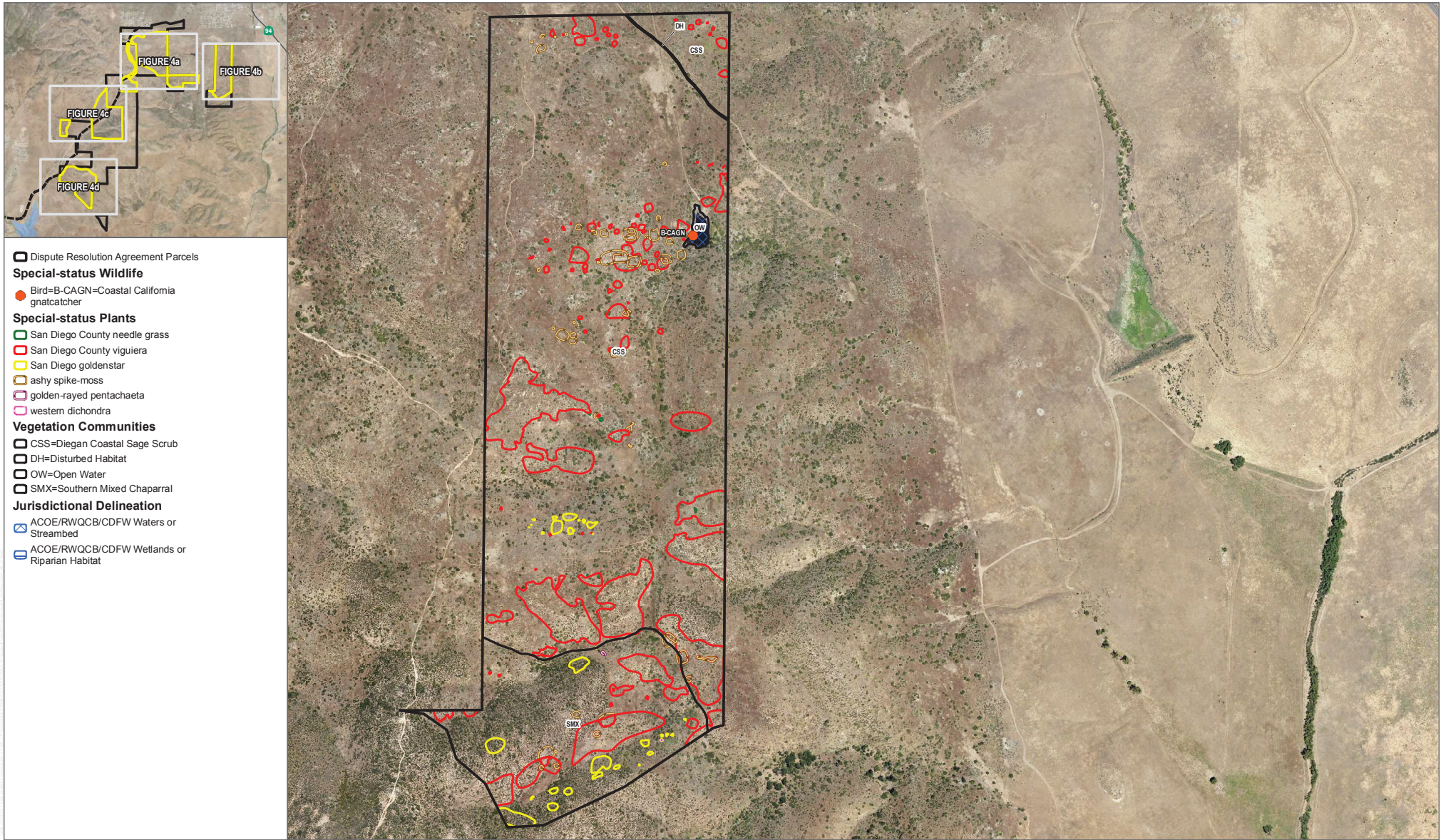
INTENTIONALLY LEFT BLANK



SOURCE: SANGIS 2017; Hunsaker 2019

INTENTIONALLY LEFT BLANK

INTENTIONALLY LEFT BLANK

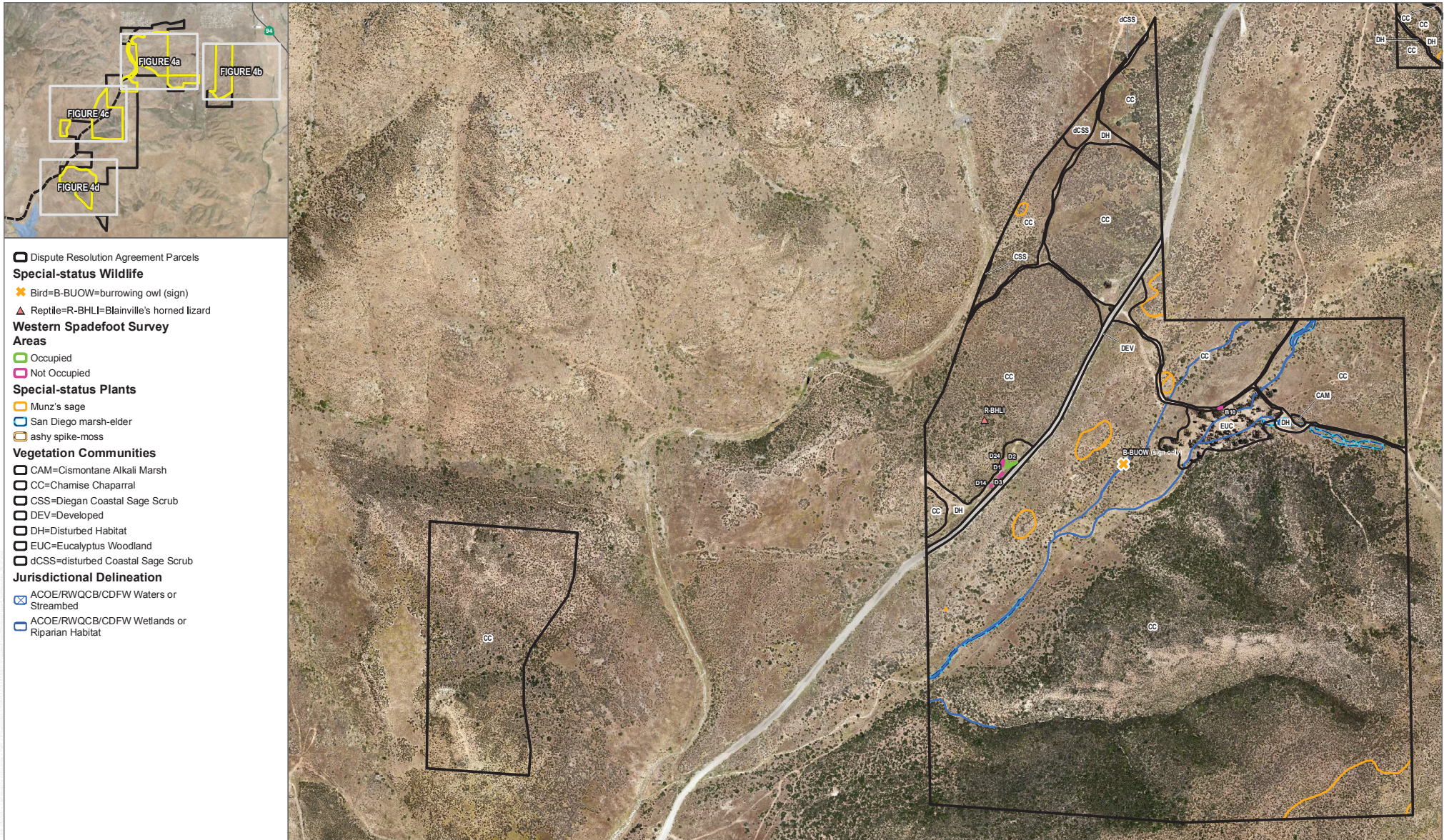


SOURCE: SANGIS 2017; Hunsaker 2019

FIGURE 4b

Biological Resources

INTENTIONALLY LEFT BLANK



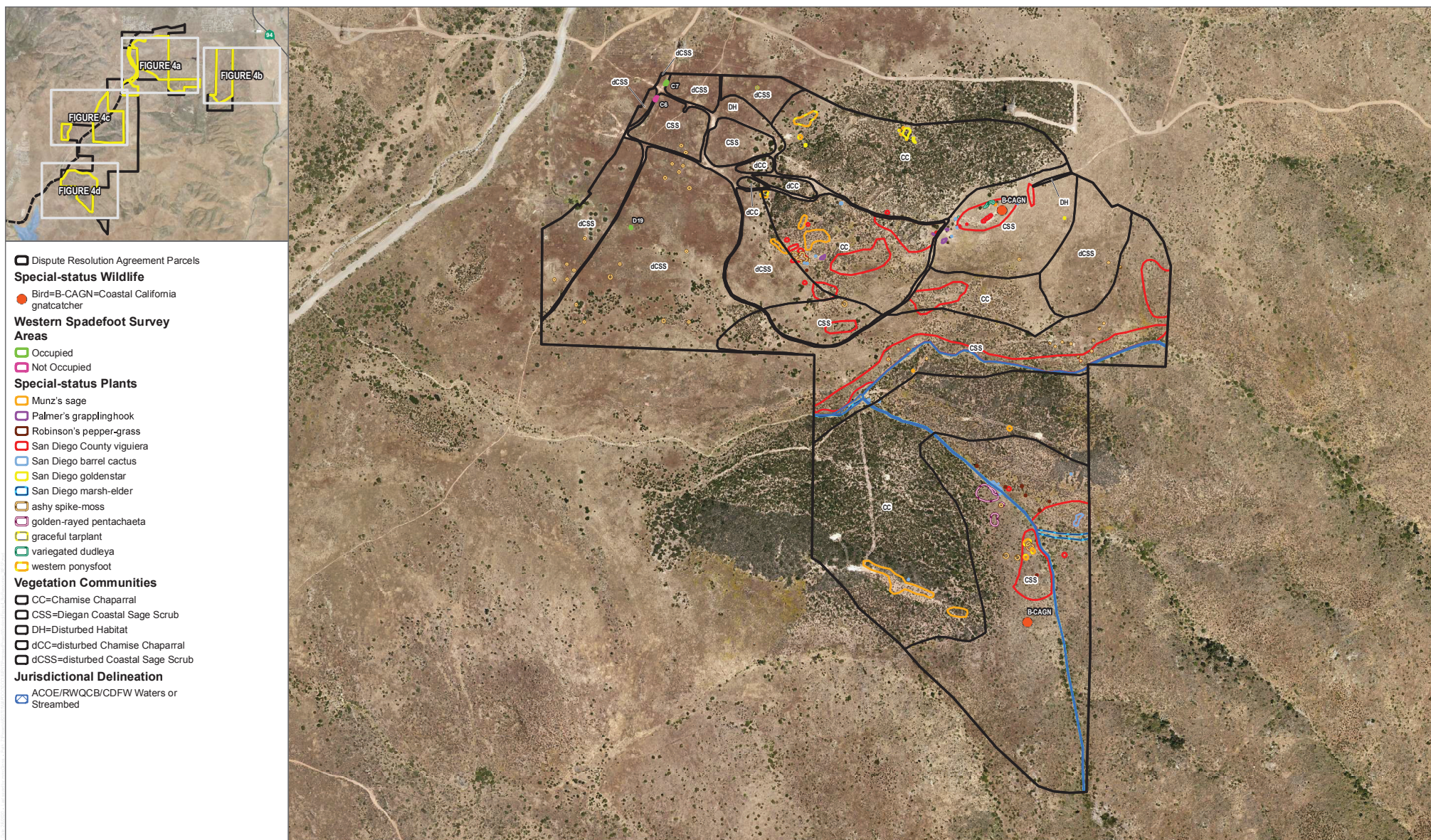
SOURCE: SANGIS 2017; Hunsaker 2019

FIGURE 4c

Biological Resources

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

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS 2017; Hunsaker 2019

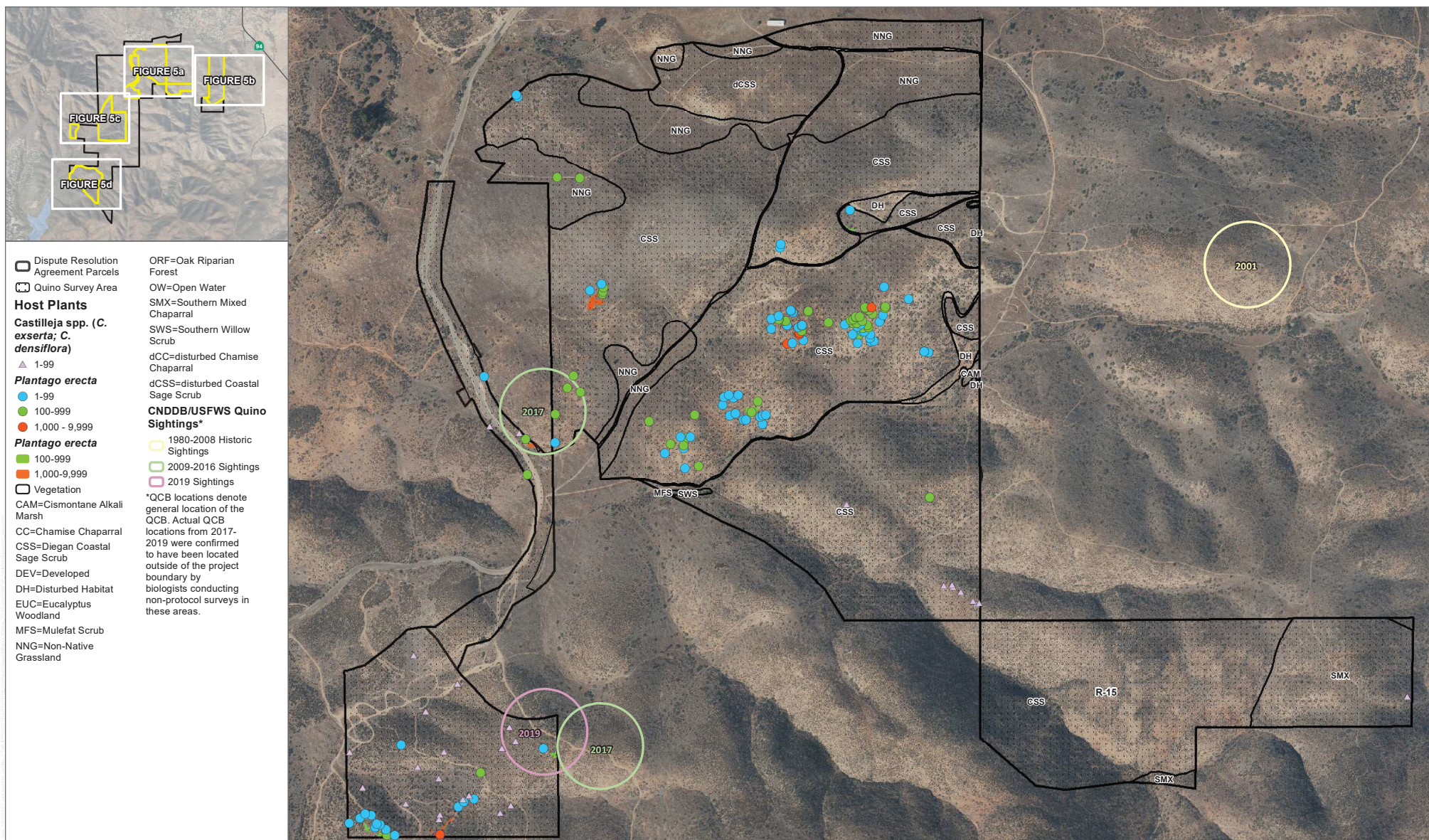


FIGURE 4d

Biological Resources

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

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS 2017; Hunsaker 2018

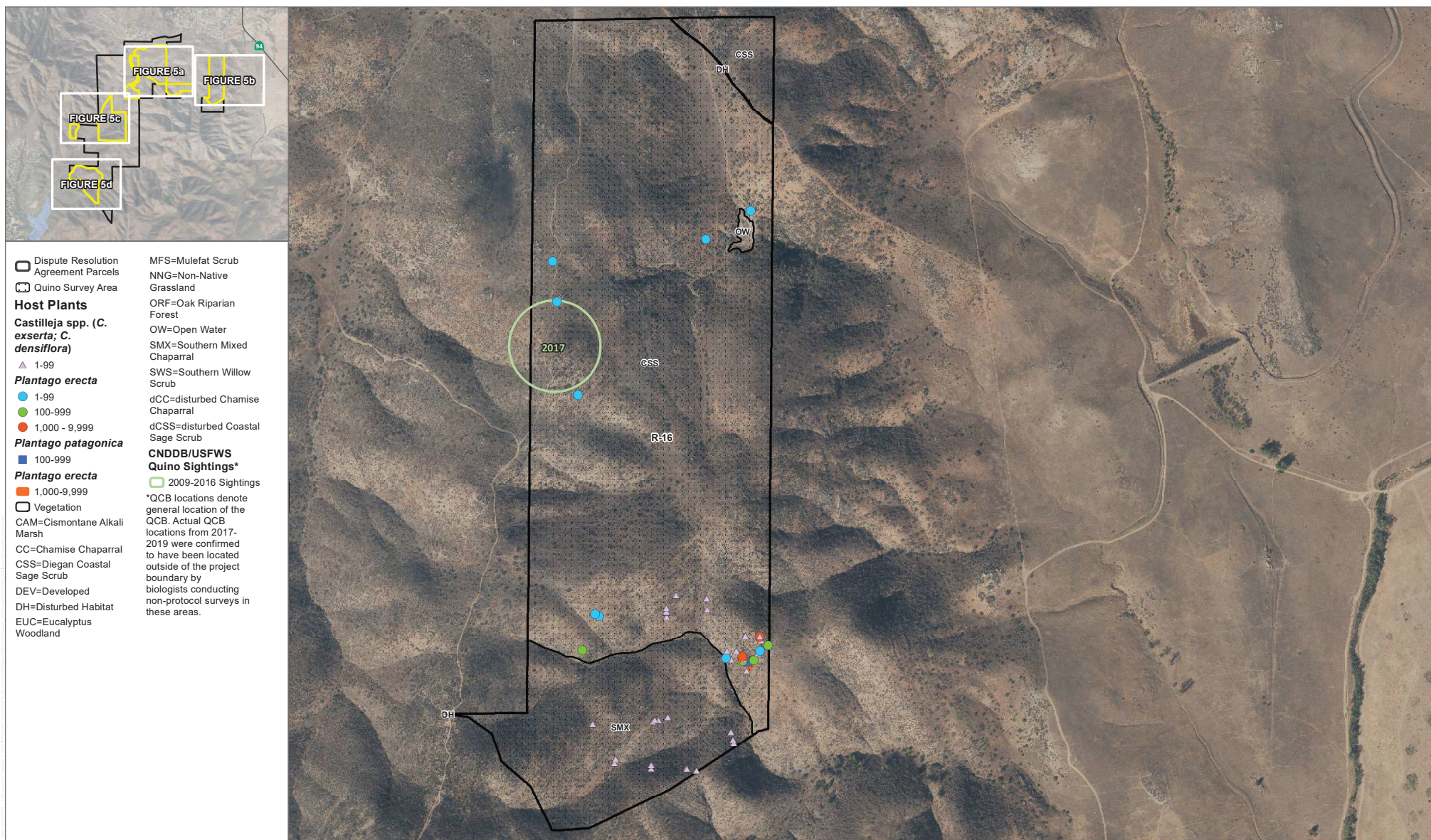


FIGURE 5a

2016 Host Plant Mapping and Quino Checkerspot Butterfly Sightings

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

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS 2017; Hunsaker 2018

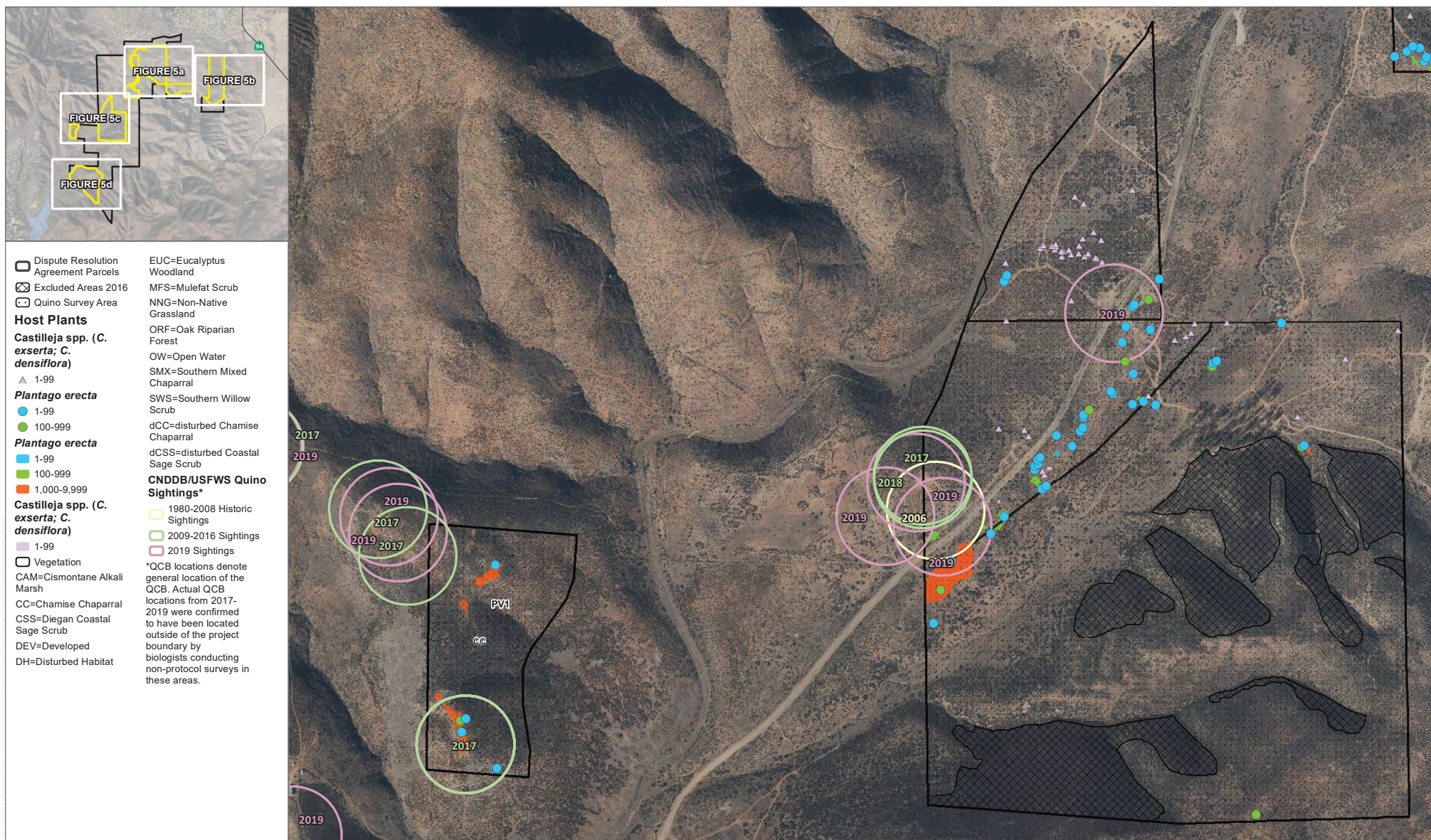


FIGURE 5b

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

INTENTIONALLY LEFT BLANK



SOURCE: SANGIS 2017; Hunsaker 2018

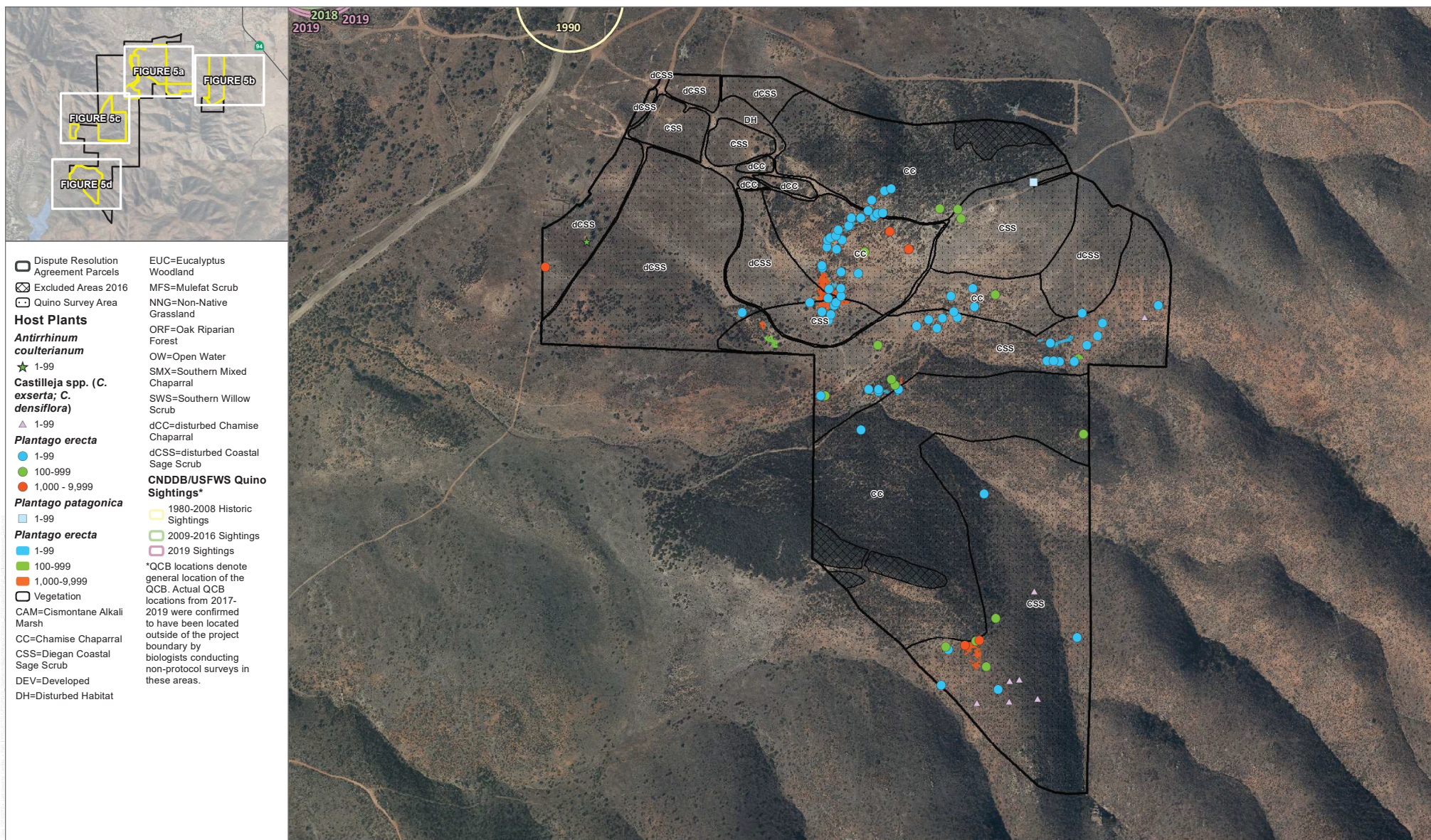


FIGURE 5c

2016 Host Plant Mapping and Quino Checkerspot Butterfly Sightings

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

INTENTIONALLY LEFT BLANK



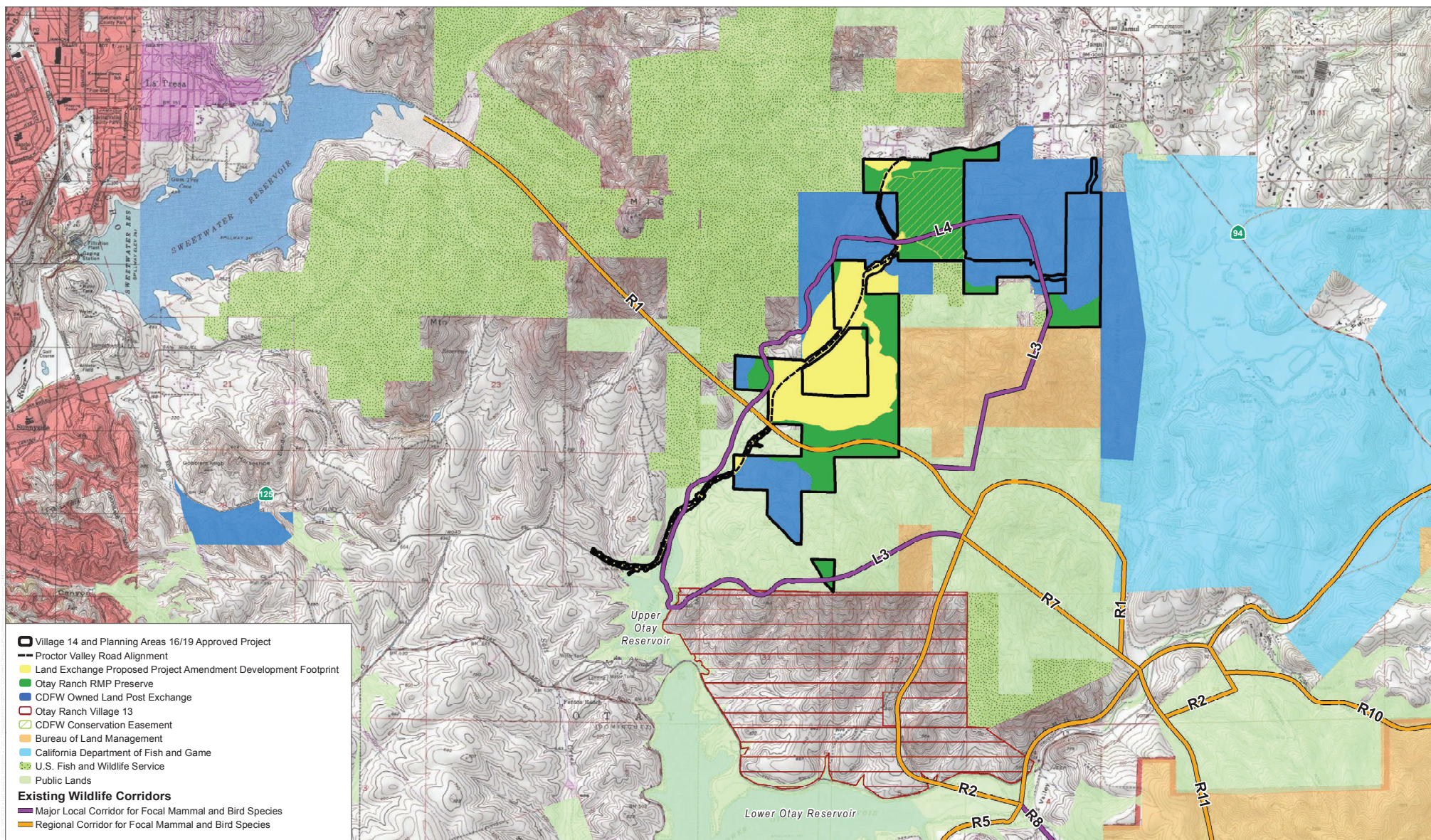
SOURCE: SANGIS 2017; Hunsaker 2018

FIGURE 5d

2016 Host Plant Mapping and Quino Checkerspot Butterfly Sightings

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

INTENTIONALLY LEFT BLANK



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

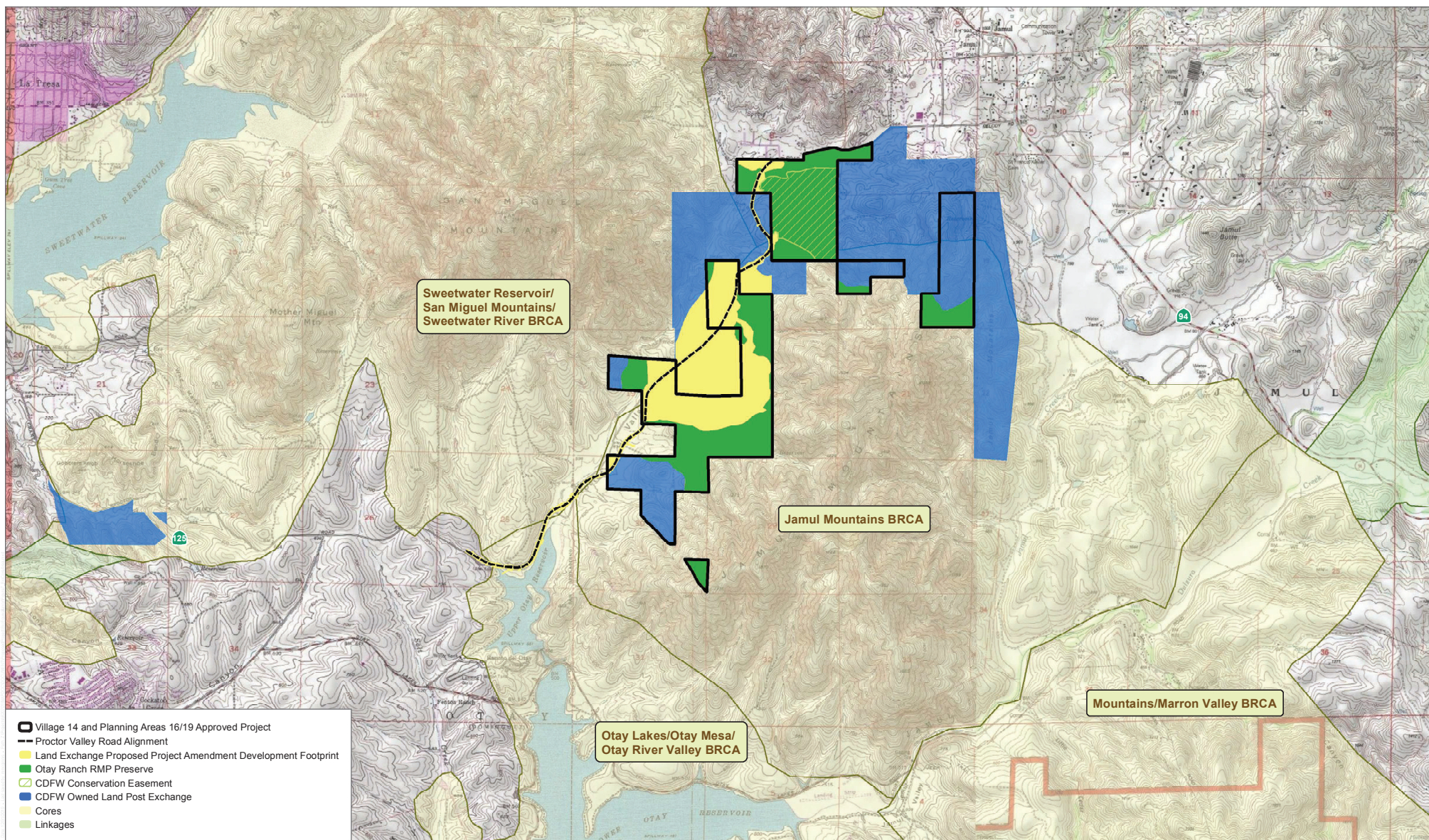
DUDEK 0 1,750 3,500 Feet

FIGURE 6

Wildlife Corridor and Habitat Linkages Post Exchange

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

INTENTIONALLY LEFT BLANK



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



FIGURE 7

Biological Resources Core Area Post Exchange

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

INTENTIONALLY LEFT BLANK