

SOURCE: NAIP 2016; Hunsaker 2017

**DUDEK**

Otay Ranch Village 14 and Planning Areas 16/19

**FIGURE 1-5**  
**Project Area**



**Biological Resources Technical Report  
for Otay Ranch Village 14 and Planning Areas 16/19**

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## **Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19**

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### **Conserved Open Space**

“Conserved Open Space” refers to those areas with an Otay Ranch GDP/SRP land use designation other than Otay Ranch RMP Preserve that would be preserved and would either be added to the Otay Ranch RMP Preserve, managed under a separate RMP, or given to the City of San Diego to mitigate for impacts to Cornerstone Lands (11.3 acres). The approximately 72.4 acres of Conserved Open Space is composed of 31.9 acres within the 127.1 acres of the LDA land use designation, 3.6 acres within designated development areas in Planning Areas 16/19, and 36.9 acres of residential land use designation within Village 14 (Figure 1-5). The Conserved Open Space areas are located adjacent to Otay Ranch RMP Preserve and would have an open space easement placed over the land held by a third-party entity.

### **Limited Development Areas**

LDA is a defined land use designation in the Otay Ranch GDP/SRP that is defined as follows: “An open space easement will cover the areas designated as ‘Limited Development Area’... These areas will be left as natural open space with the exception that roads and utilities are anticipated to cross or lie within these areas.... LDAs may be included within private lots but would have the following set of restrictions. Removal of native vegetation would be prohibited except as necessary for construction of roads and utilities. There would be no buildings or other structure, agriculture, landscaping, livestock, grazing, horses, trash disposal or fences allowed within these areas” (City of Chula Vista and County of San Diego 1993a). Fuel modification is allowed in the LDA as “brushing for fire control zones would conform to the local fire district regulations” (City of Chula Vista and County of San Diego 1993a). A total of 127.1 acres of LDA is in Planning Areas 16/19, and there is no LDA in Village 14 (Figure 1-5). Of the 127.1 acres of LDA, 31.9 acres would be designated as Conserved Open Space with a biological open space easement placed over the land. Since this 31.9 acres would be used for mitigation for Proposed Project impacts, the easement would exclude the placement of roads and utilities. A small portion of LDA would be graded for access roads (11.8 acres). The remaining 83.4 acres of LDA that would not be impacted by the Proposed Project is termed “non-graded LDA.”

## **1.4 Project Terms in the Context of the Proposed Project**

Section 1.3 defines Proposed Project terms that are used in this technical report. This section describes the Proposed Project in the context of those terms. Table 1-2 provides the acreages of each Proposed Project component within the Development Footprint, LDA, Otay Ranch RMP Preserve, and Conserved Open Space areas.

## Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19

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### Otay Ranch Village 14

Village 14 is referred to herein as a discrete subset of the Proposed Project and reflects approximately 723.7 acres of the applicant's ownership located exclusively within Village 14. There is the Development Footprint, Otay Ranch RMP Preserve, and Conserved Open Space within Otay Ranch Village 14.

**Village 14 Development Footprint:** The Village 14 Development Footprint reflects the portion of development located exclusively within Village 14, totals 416.6 acres, and includes both permanent and temporary impacts. Approximately 994 homes are planned around a Village Core. The Development Footprint is consistent with the Otay Ranch GDP/SRP.

**Village 14 Otay Ranch RMP Preserve:** This area refers to the Otay Ranch RMP Preserve area located within the boundaries of Village 14 and is owned by the Proposed Project applicant. The Village 14 Otay Ranch RMP Preserve consists of 270.2 acres within Village 14, which includes 5.9 acres of impacts from permanent road improvements and 3.5 acres of fuel modification associated with the roads within the Otay Ranch RMP Preserve (i.e., 9.4 acres of the Otay Ranch RMP Preserve are located in the Development Footprint). An additional 6.7 acres of temporary impacts to the Otay Ranch RMP Preserve are required for road improvements. Although these impacts are allowable uses within the Otay Ranch RMP Preserve, the impacts are categorized under the Development Footprint for purposes of analyzing impacts to biological resources.

**Village 14 Conserved Open Space:** Village 14 Conserved Open Space contains approximately 36.9 acres, although it is designated for development in the Otay Ranch GDP/SRP. The Conserved Open Space is not part of the Otay Ranch RMP Preserve. Areas of Village 14 Conserved Open Space would be preserved and would either be added to the Otay Ranch RMP Preserve, managed under a separate RMP, or given to the City of San Diego to mitigate for impacts to Cornerstone Lands.

**Table 1-2  
Summary of Acreages by Project Area and Various Project Terms**

Land Use Area	Impact	Project Area			Total
		Village 14	Planning Areas 16/19	Off Site	
Development	Permanent	412.9	272.6	32.1	716.6
	Temporary	3.7	—	53.2	56.9
<i>Development Footprint Total</i>		416.6	271.6	85.4	773.6
LDA	Permanent	—	11.6	—	22.2
	No Impact	—	83.7	—	73.0
<i>LDA Total</i>		—	95.2	—	95.2



## Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19

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**Table 1-2**  
**Summary of Acreages by Project Area and Various Project Terms**

Land Use Area	Impact	Project Area			Total
		Village 14	Planning Areas 16/19	Off Site	
Conserved Open Space	LDA No Impact	—	31.9	—	31.9
	Development Land Use No Impact	36.9	3.7	—	41.5
<i>Conserved Open Space Total</i>		36.9	35.5	—	73.5
Otay Ranch RMP Preserve	Permanent	9.4	2.4	—	11.8
	Temporary	6.7	3.4	—	10.1
	No Impact	254.1	150.7	—	404.8
<i>Otay Ranch RMP Preserve Total</i>		270.2	156.5	—	426.7
<b>Total</b>		<b>723.7</b>	<b>559.9</b>	<b>85.4</b>	<b>1,369.0</b>

### Otay Ranch Planning Areas 16/19

Planning Areas 16/19 as referred to herein is a discrete subset of the Proposed Project and reflects approximately 559.9 acres of the applicant's ownership. There is designated Development Footprint, LDA, Otay Ranch RMP Preserve, and Conserved Open Space within Planning Areas 16/19.

**Planning Areas 16/19 Development Footprint:** The Planning Areas 16/19 Development Footprint reflects the area to be developed located exclusively within Planning Areas 16/19. It totals 272.6 acres, which would be permanently impacted. Approximately 125 homes are planned on 1- and 2-acre minimum lots within Planning Areas 16/19.

**Planning Areas 16/19 LDA:** Within Planning Areas 16/19, the LDA totals 127.1 acres. The majority of the LDA would be divided into private lots and would not be graded (see definition for LDA provided in Section 1.3). However, 11.6 acres of LDA would be either graded for access roads or used for fuel modification. These acreages are included in the permanent impact Development Footprint totals for Planning Areas 16/19 for purposes of analyzing impacts on biological resources. Of the 127.1 acres of LDA, 31.9 acres is categorized as Conserved Open Space.

**Planning Areas 16/19 Otay Ranch RMP Preserve:** This area refers to the Otay Ranch RMP Preserve area located within the boundaries of Planning Areas 16/19 and is owned by the Proposed Project applicant. The Planning Areas 16/19 Otay Ranch RMP Preserve consists of 156.5 acres, which includes 2.4 acres of permanent impacts from improvements to Proctor Valley Road. An additional 3.4 acres of Otay Ranch RMP Preserve would be temporarily impacted for road improvements (i.e., 5.8 acres of Otay Ranch RMP Preserve are located in the

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Development Footprint). Although these impacts are allowable uses within the Preserve, the impacts are categorized under the Development Footprint as permanent impacts for purposes of analyzing impacts to biological resources.

**Planning Areas 16/19 Conserved Open Space:** Conserved Open Space within Planning Areas 16/19 includes approximately 31.9 acres of LDA and private HOA open space (3.7 acres) that has the potential to be conveyed to the Otay Ranch RMP Preserve in the future. Areas of Conserved Open Space within Planning Areas 16/19 would be preserved and would either be added to the Otay Ranch RMP Preserve or managed under a separate RMP.

### **Off-Site Improvements**

Off-site improvements would result in 85.4 acres of temporary and permanent impacts. Off-site improvements would consist of the following: wet and dry utilities, drainage facilities, and trails along Proctor Valley Road; access roads in Planning Area 16; 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. Improvements to Proctor Valley Road would include Proctor Valley Road South (0.25 miles of which are in the City of Chula Vista), South and Central Proctor Valley Road (1.5 miles in City of San Diego Cornerstone Lands), Central Proctor Valley Road (0.4 miles in CDFW Otay Ranch Village 14 lands), and Proctor Valley Road North (0.75 miles in CDFW Otay Ranch land between Village 14 and Planning Areas 16/19 Development Footprint). A small portion of improvements to Proctor Valley Road North (0.2 acres) extends into a County road easement. Proctor Valley Road Central and South are proposed to be improved and classified as two-lane-with-median light collectors with a width ranging from 68 to 74 feet, plus an additional 20-foot-wide fuel modification/construction easement on each side. Proctor Valley Road North is a two-lane interim road with a paved width of 28 feet in a 40-foot-wide right-of-way (ROW). Improvements along Proctor Valley Road would include those typically installed in or near roadways, including wet and dry utilities, a sewer pump station, drainage, landscaping, culverts, and trails. Proctor Valley Road is an approved County General Plan Mobility Element road (County of San Diego 2011a), and an approved facility in the MSCP County of San Diego Subarea Plan (County of San Diego 1997), City of San Diego MSCP Subarea Plan (City of San Diego 1997), and City of Chula Vista Subarea Plan (City of Chula Vista 2003).

In addition, there are three off-site roads associated with Planning Area 16. These roads are located primarily within CDFW-managed lands and are approved in the Otay Ranch GDP/SRP as facilities within designated development or LDA land use (and are also approved facilities per the MSCP County of San Diego Subarea Plan Section 1.9.3.3 (County of San Diego 1997)). Improvements in these off-site roads would include those typically installed in or near roadways, including wet and dry utilities, drainage, landscaping, culverts, and trails.



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## 2 APPLICABLE REGULATIONS

The Proposed Project would be located within the boundaries of the MSCP Plan. The MSCP is a multi-jurisdictional habitat conservation planning program that involves USFWS, CDFW, the County of San Diego, the City of San Diego, the City of Chula Vista, and other local jurisdictions and special districts (Figure 2-1, Regional Planning Context). Refer to Section 2.3 for more information regarding the MSCP.

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

### 2.1 Federal

#### 2.1.1 Federal Endangered Species Act

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

Critical habitat for four species exists within the Project Area, including off-site improvement areas: coastal California gnatcatcher (*Poliophtila californica californica*), Quino checkerspot butterfly (*Euphydryas editha quino*), Otay tarplant (*Deinandra conjugens*), and spreading navarretia (*Navarretia fossalis*). The Project Area includes 12.8 acres of coastal California gnatcatcher critical habitat, 813.9 acres of Quino checkerspot butterfly critical habitat, 20.9 acres of Otay tarplant critical habitat, and 32.5 acres of spreading navarretia critical habitat. Figure 2-2, Critical Habitat, shows the locations of critical habitat within the Project Area. The critical habitat designation for Otay tarplant includes 8.9 acres located within the northwestern portion of the Project Area within the Village 14 Development Footprint. This designation, however, appears to

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be the result of a mapping error, since no Otay tarplant or suitable habitat were observed in this location during surveys for the Proposed Project. It appears that the critical habitat designation was based on parcel data, since the boundary of the critical habitat aligns directly with the parcel data. However, recent land survey data for the Project Area shows that the parcel boundary has been adjusted, with that boundary shifting to the north. As a result of this mapping change/error, there is a portion of Otay tarplant critical habitat that is inaccurately mapped within the Project Area. Additionally, USFWS describes Otay tarplant as found on clay soils in grasslands, open coastal sage scrub, and maritime succulent scrub. The habitat within the Project Area lacks clay soils and these vegetation communities; therefore, it is not suitable for Otay tarplant.

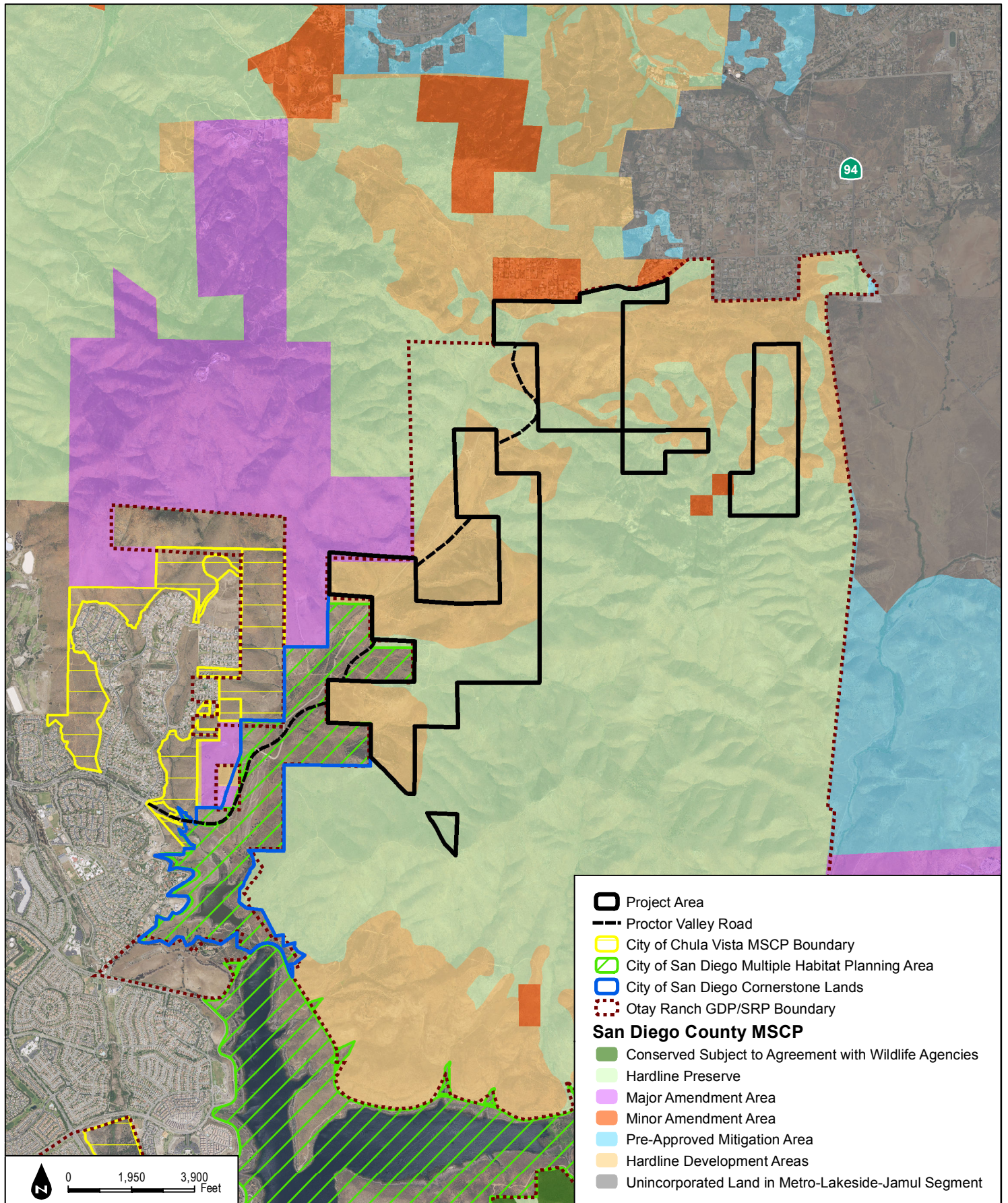
### **2.1.2 Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, “take” is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 U.S.C. 703 et seq.). Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The executive order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

### **2.1.3 Clean Water Act**

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





SOURCE: NAIP 2016; Hunsaker 2017;  
SANGIS 2003, 2010; City of Chula Vista 2003

FIGURE 2-1  
Regional Planning Context

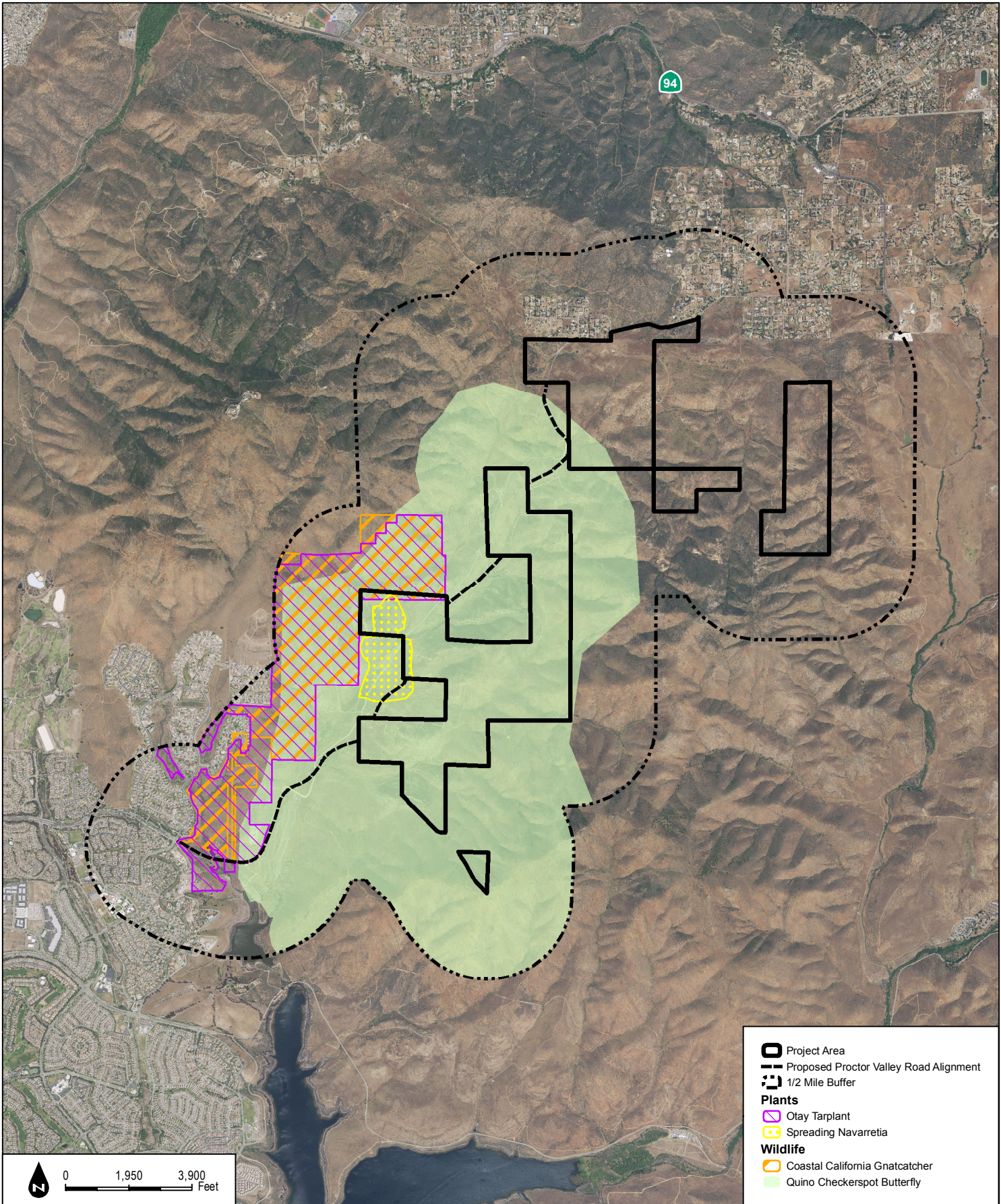
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SOURCE: NAIP 2016; Hunsaker 2017; USFWS 2016

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FIGURE 2-2  
Critical Habitat



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### 2.1.4 Bald and Golden Eagle Protection Act

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

The BGEPA prohibits any form of possession or taking of both eagle species, and the statute imposes criminal and civil sanctions, as well as an enhanced penalty provision for subsequent offenses. Further, the BGEPA provides for the forfeiture of anything used to acquire eagles in violation of the statute. The statute exempts from its prohibitions on possession the use of eagles or eagle parts for exhibition, scientific, or Native American religious uses.

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

On December 16, 2016, USFWS adopted additional regulations regarding incidental take of golden eagles and their nests (81 FR 91494 et seq.). Most of the new regulations address “programmatic eagle nonpurposeful take permits” such as those typically requested by members of the alternative energy industry, most notably wind farms. For example, the new regulations extend the duration of such permits from 5 to 30 years. In addition, the new regulations modify the definition of the BGEPA “preservation standard” to mean “consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and the persistence of local populations throughout the service range of each species” (81 FR 91496–91497).

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### **2.2 State**

#### **2.2.1 California Endangered Species Act**

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

Sections 3511, 4700, and 5515 of the California Fish and Game Code designate certain birds, mammals, and fish as “fully protected” species. These species may not be taken or possessed without a permit from the Fish and Game Commission, and such take may only occur pursuant to scientific research or in connection with an authorized Natural Community Conservation Plan (NCCP). No “incidental take” of fully protected species is allowed.

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

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



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### **2.2.2 California Fish and Game Code**

#### **Streambed Alteration Agreement**

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

#### **Birds and Mammals**

According to Sections 3511 and 4700 of the California Fish and Game Code, which regulate birds and mammals, a fully protected species may not be taken or possessed. CDFW may not authorize the take of such species except (1) for necessary scientific research, (2) for the protection of livestock, and (3) when the take occurs for fully protected species within an approved NCCP, such as the MSCP that covers the Project Area.

#### **Resident and Migratory Birds**

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

#### **California Native Plant Protection Act**

The Native Plant Protection Act of 1977 (CFGF Section 1900–1913) directed CDFW to carry out the legislature’s intent to “preserve, protect and enhance rare and endangered plants in this State.” The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as “endangered” or “rare,” and to protect endangered and rare plants from take. When CESA was passed in 1984, it expanded on the original Native Plant Protection Act, enhanced legal protection for plants, and created the categories of “threatened” and “endangered” species to parallel FESA. CESA categorized all rare animals as threatened

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species under CESA, but did not do so for rare plants, which resulted in three listing categories for plants in California: rare, threatened, and endangered. The Native Plant Protection Act remains part of the California Fish and Game Code, and mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and project proponents.

### **2.2.3 Porter–Cologne Water Quality Control Act**

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

### **2.2.4 California Environmental Quality Act**

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

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### **2.3 Regional**

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

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

#### **2.3.2 Multiple Species Conservation Program Plan**

The Proposed Project is located within the boundaries of the MSCP Plan. The MSCP is a multi-jurisdictional habitat conservation planning program that involves USFWS, CDFW, the County of San Diego, the City of San Diego, the City of Chula Vista, and other local jurisdictions and special districts (Figure 2-3, County of San Diego MSCP South County Sub-Area). Local jurisdictions and special districts implement their respective portions through subarea plans. The combination of the MSCP Plan and subarea plans serve as a Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of FESA, and as an NCCP pursuant to the California NCCP Act of 1991 (MSCP 1998).

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

A total of 85 plant and animal species are "covered" by the MSCP Plan. With approval of each subarea plan and corresponding implementing agreement, each participating local jurisdiction receives permits and/or authorization to directly impact or "take" MSCP Covered Species. The Covered Species include species listed as endangered or threatened by the FESA or CESA, as well as unlisted species. Table 3-4a in the MSCP Plan provides a list of the MSCP Covered

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Species. Table 3-5 in the MSCP Plan includes specific conditions required for take authorizations (MSCP 1998).

### **2.3.3 MSCP County of San Diego Subarea Plan**

The MSCP County of San Diego Subarea Plan implements the MSCP Plan within the unincorporated areas of the County of San Diego and encompasses 252,132 acres. The MSCP County Subarea Plan provides “take” coverage for 85 species, provided the County satisfies the conservation and mitigation goals set forth in the Implementing Agreement (USFWS et al. 1998) to the MSCP County Subarea Plan (County of San Diego 1997).

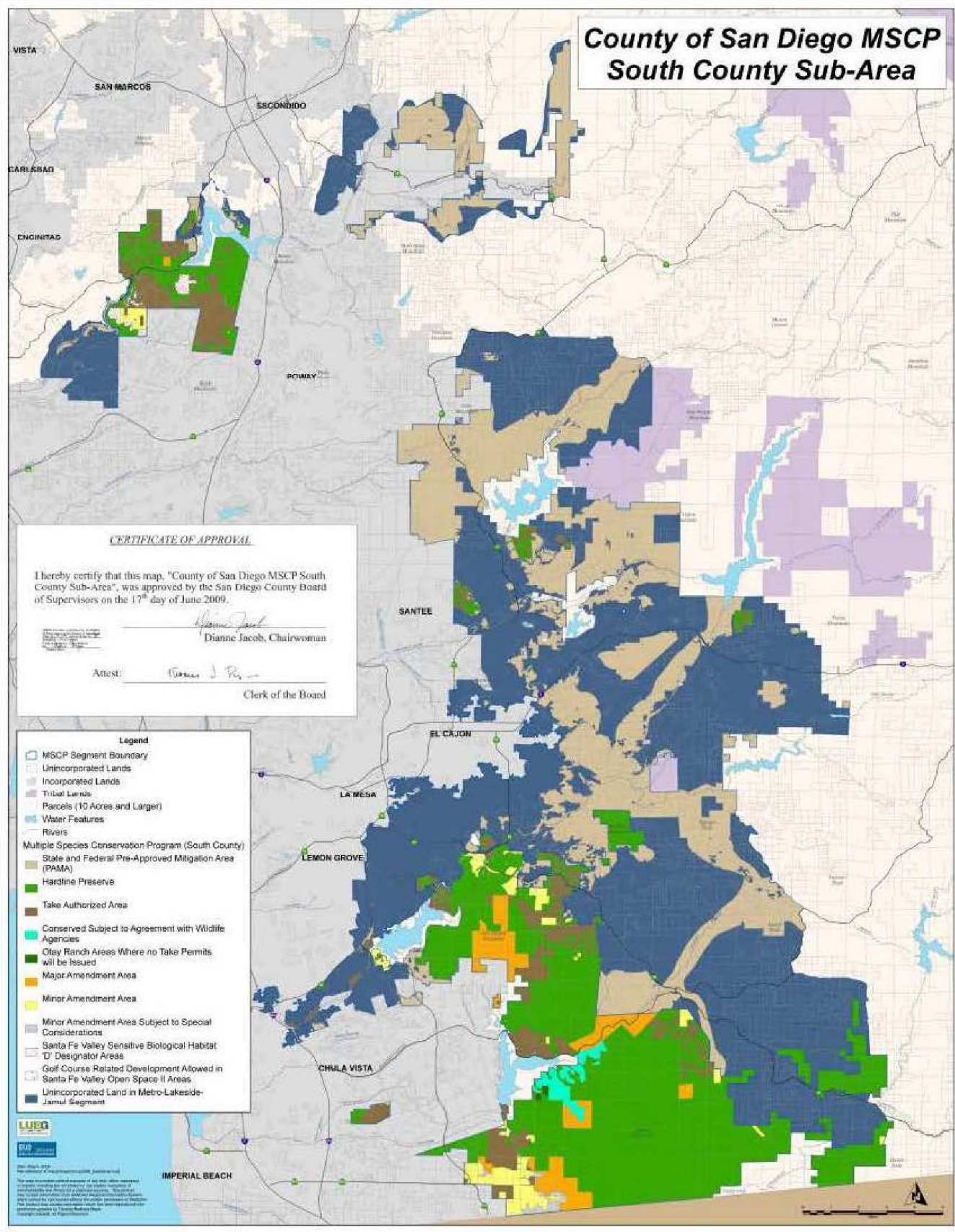
The MSCP County Subarea Plan is divided into three segments: South County, Lake Hodges, and Metro–Jamul–Lakeside. The Project Area is located within the boundaries of the South County segment. The maps associated with the South County segment in the MSCP County Subarea Plan delineate where habitat will be conserved (County of San Diego 1997). As stated in Section 1.4 of the Implementing Agreement (USFWS et al. 1998) for the MSCP County Subarea Plan, the Wildlife Agencies (i.e., USFWS and CDFW) have agreed to areas where development can occur, and areas required to be preserved as mitigation for granting take authorization for the 85 Covered Species.<sup>2</sup>

The MSCP County Subarea Plan (County of San Diego 1997) and Implementing Agreement (USFWS et al. 1998) provide that all development-related impacts to Covered Species within take-authorized areas or areas found to be in compliance with the Biological Mitigation Ordinance (BMO) are deemed mitigated through a project applicant’s participation in the MSCP Plan. Specifically, projects with an agreed upon “hard line” MSCP Preserve are authorized, within certain limits, to “take” any of the 85 Covered Species, and they may do so without applying for or securing incidental take permits from CDFW or USFWS. Projects that do not have an agreed upon “hard line” boundary must demonstrate conformance with the County’s BMO. Section 86.502 of the Biological Mitigation Ordinance BMO (Application of Regulations) states that, unless exempt, the BMO “shall apply to all land within San Diego County shown on the MSCP Boundary Map (Attachment A of Document No. 0769999 on file with the Clerk of the Board).” Section 86.503 of the BMO (Exemptions) identifies eleven criteria for exemptions. Three areas within Village 14, identified as PV1, PV2 and PV3, do not qualify for any of these exemptions. Accordingly, a BMO Analysis and Findings analyzing PV1, PV2, and PV3 pursuant to the requirements of the BMO is provided in Appendix A. Notably, this analysis *does not* apply the BMO requirements to other areas of Village 14 or to any of Planning Areas 16/19, as these areas are explicitly exempt pursuant to Section 86.503(a)(4) of the BMO (County of San Diego 2010d).

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<sup>2</sup> A full description of the Implementing Agreement and its mechanics is in Section 2.3.4.





SOURCE: San Diego County 2010

**FIGURE 2-3**

**County of San Diego MSCP South County Sub-Area**

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

### **2.3.4 MSCP County of San Diego Implementing Agreement**

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

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

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

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Through this provision of the Implementing Agreement, Third Party Beneficiaries can obtain take authorization directly from the County, and need not obtain incidental take permits from CDFW or USFWS.

The Implementing Agreement also assures Third Party Beneficiaries that their mitigation obligations, as set forth in the MSCP, would not change over time, unless certain extraordinary conditions arise (Implementing Agreement, 9.5, 9.6; Implementing Agreement, 17C (USFWS et al. 1998)). Under the Agreement, “Extraordinary Circumstances” means either of the following (USFWS et al. 1998):

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

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

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

The Otay Ranch RMP Phase I is a comprehensive planning document that addresses the preservation, enhancement, and management of sensitive natural and cultural resources on the 22,899-acre Otay Ranch property and was designed specifically for Otay Ranch (City of Chula



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Vista and County of San Diego 1993b). The RMP was prepared in two phases. RMP Phase I identifies Preserve areas within Otay Ranch and contains policies for species and habitat conservation and long-term management of the Preserve. RMP Phase II includes Otay Ranch-wide studies that provide details on conveyance, management, and funding for the Otay Ranch RMP Preserve. Portions of the RMP Phase II were adopted by the County of San Diego, and the RMP has been incorporated in the Chula Vista MSCP Subarea Plan (City of Chula Vista and County of San Diego 1993a). The County of San Diego and the City of Chula Vista were in the process of updating the Phase 2 RMP as of the writing of this report.

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

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

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

The Otay Ranch RMP Preserve is a hardline Preserve and includes land reserved for mitigation stemming from impacts to sensitive resources as a result of Otay Ranch development. The Otay Ranch RMP Preserve was designed and is managed specifically for protection and enhancement of multiple species present on Otay Ranch. These dedicated conservation lands also serve to connect large areas of open space through a series of wildlife corridors, including connections

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between regional open spaces such as the Otay Reservoir System and San Miguel Mountain. The Otay Ranch RMP Preserve is included in the MSCP County Subregional Plan Preserve.

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

Proposed Project impacts to sensitive resources within the Village 14 and Planning Areas 16/19 Development Footprint are subject to the goals, objectives, and policies set forth in the Otay Ranch RMP. These goals, objectives, and policies include the types and locations of impacts, conservation of populations, and habitat for sensitive species, as well as Preserve conveyance for overall impacts (City of Chula Vista and County of San Diego 1993b).

### **2.4 Local**

#### **2.4.1 City of San Diego MSCP Subarea Plan**

The Proposed Project encompasses 33.7 acres within the City of San Diego MSCP Subarea Plan area, specifically known as Cornerstone Lands. This portion of the Proposed Project would include realignment and improvements to Proctor Valley Road. The City of San Diego MSCP Subarea Plan (City of San Diego 1997) encompasses 206,124 acres within the MSCP Subregional Plan study area. The subarea is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. The City of San Diego Multiple Habitat Planning Area (MHPA) represents a hardline Preserve, in which boundaries have been specifically determined. It is considered an urban preserve that is constrained by existing or approved development, and is composed of linkages connecting several large areas of habitat.

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

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### **Cornerstone Lands**

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

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

The Proposed Project realignment and improvements to Proctor Valley Road South would affect some parts of City of San Diego Cornerstone Lands that are also located within the City of San Diego MHPA. Specifically, approximately 0.3 miles of the road between the South Village 14 and Central Village 14 would be realigned to the east to provide a 100-foot buffer from the watershed for vernal pools that are located in the City of San Diego Cornerstone Land properties and 1.2 miles of road south of South Village 14 would be improved. The City of San Diego MSCP Subarea Plan excludes certain utilities and public facilities from the MHPA within Cornerstone Lands, including Proctor Valley Road. As such, construction of Proctor Valley Road within the Preserve system “is not precluded based on the City’s Cornerstone Lands Conservation Bank Agreement” (City of San Diego 1997). Impacts to City of San Diego Cornerstone Lands are discussed in Section 5 and Section 10.2.5 of this report.

### **2.4.2 City of Chula Vista MSCP Subarea Plan**

The Proposed Project encompasses 5.4 acres within the Chula Vista MSCP Subarea Plan boundaries. This portion of the Proposed Project includes realignment and improvements to Proctor Valley Road. The Chula Vista MSCP Subarea Plan was approved by the City of Chula Vista in May 2003 (City of Chula Vista 2003) and received take authorization from the Wildlife Agencies (USFWS and CDFW) in January 2005. The Chula Vista MSCP Subarea Plan provides for conservation of upland habitats and species through Preserve design, regulation of impacts

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and uses, and management of the Preserve. The Chula Vista MSCP Subarea Plan Preserve system is mapped as either 100% or 75%–100% Conservation Area. The 100% Conservation Areas are delineated by hardline boundaries, and the 75%–100% Conservation Areas are defined by a quantitative and qualitative target for habitat conservation where final boundaries are not yet determined. The 100% Conservation Areas are either already in public ownership or would be dedicated to the Preserve as part of the development approval process for Covered Projects. Conversely, the Development Footprint consists of mapped areas within which the “take” of Covered Species is authorized by the Chula Vista MSCP Subarea Plan Section 10(a)(1)(B) (City of Chula Vista 2003) and Section 2835 permit.

The Chula Vista MSCP Subarea Plan identifies “Covered Projects” as those projects involving land use development within the City of Chula Vista for which hardline MSCP Preserve boundaries have been established and where conservation measures consistent with the MSCP Plan and Chula Vista MSCP Subarea Plan have been or will be specified as binding conditions of approval in the project’s plans and approvals. Covered Projects provide protection of narrow endemic species through consideration of narrow endemic species in the MSCP Preserve design for those projects. The Chula Vista MSCP Subarea Plan defines narrow endemic species as species that are highly restricted by their habitat affinities, soil conditions, or other ecological factors, including specific geographic and climatological conditions that support species with limited habitat ranges (City of Chula Vista 2003). Impacts to narrow endemic species require additional avoidance and minimization of impacts to ensure that their long-term viability is maintained. Take of Covered Species, including narrow endemic species, for development areas within Covered Projects would be extended at the time of development approval. There are no limitations on impacts to narrow endemic species within the development areas of Covered Projects (City of Chula Vista 2003).

Chapter 6.0 of the Chula Vista MSCP Subarea Plan identifies permitted uses within the Chula Vista MSCP Preserve. Section 6.3.3 of the Chula Vista MSCP Subarea Plan differentiates between “Planned Facilities” and “Future Facilities.” Planned Facilities are major roads and infrastructure that were planned for development through existing plans and/or project approvals (i.e., General Plan and Otay Ranch GDP/SRP) and allowed to be constructed, operated, and maintained within the Chula Vista MSCP Preserve at the time of writing of the Chula Vista MSCP Subarea Plan. These Planned Facilities are identified in Table 6-1 of the Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Future Facilities are those facilities necessary to support planned development that were not identified at the time of the Chula Vista MSCP Subarea Plan but were anticipated to be required. Table 6-2 of the Chula Vista MSCP Subarea Plan identifies Future Facilities and Implementation Criteria. These facilities include detention basins, fire access roads, maintenance and operations roads, and new trails (City of Chula Vista 2003).



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

The Proposed Project proposes improvements to approximately 0.25 miles of Proctor Valley Road South within the City of Chula Vista. The portion of Proctor Valley Road to be improved as part of the Proposed Project is considered a Planned Facility and would be subject to the Facilities Siting Criteria (see Section 10.2.5 of this report). Additionally, the portion of the road to be improved is within a 100% Conservation Area, and therefore, is subject to the Narrow Endemic Species and Wetlands protection provisions of the Chula Vista MSCP Subarea Plan. However, as explained below, the impacts on narrow endemic species associated with these road improvements have been previously mitigated and, therefore, this portion of the Proposed Project is in compliance with the protection provisions of the Chula Vista MSCP Subarea Plan.

The portion of Proctor Valley Road that is located in the City of Chula Vista—sometimes referred to as the “easternmost reach” of the road—has been reviewed under CEQA as part of Rolling Hills Ranch (also known as “Salt Creek Ranch”), a Covered Project. Therefore, impacts from the City of Chula Vista’s portion of Proctor Valley Road have already been analyzed, disclosed, and mitigated.<sup>3</sup> An easement to accommodate the future alignment of Proctor Valley Road’s easternmost reach was granted per the City of Chula Vista’s Final Map 14756A. Through this easement agreement, impacts to certain resources, including non-wetland MSCP Covered Species, do not require further mitigation (see Appendix B).

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<sup>3</sup> See the Salt Creek Ranch Annexation General Development Plan Pre-Zone Final Environmental Impact Report (ECI/EIR-89-3); Salt Creek Ranch Sectional Planning Area (SPA) Plan Final Supplemental Environmental Impact Report EIR-91-03; Addendum to Final EIR No91-03 for Salt Creek Ranch Sectional Planning Area Plan; City of Chula Vista’s Final Map 14756A; and Letter Agreement between USFWS, CDFW, City of Chula Vista, and Pacific Bay Homes dated July 19, 2001 (Appendix B).

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### **Facilities Siting Criteria**

Within the City of Chula Vista, both Planned and Future Facilities located within the MSCP Preserve are subject to the Facilities Siting Criteria contained in Section 6.3.3.4 of the Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Compliance with the Facilities Siting Criteria ensures that the facilities located within the MSCP Preserve have been sited within the least environmentally sensitive areas and that impacts to the MSCP Preserve have been minimized to the maximum extent practical. A summary of the Facilities Siting Criteria is provided in Section 6.3.3.4 and Table 6-1 of the Chula Vista MSCP Subarea Plan (City of Chula Vista 2003).

### **Narrow Endemic Species Protection**

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

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

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

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

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MSCP Subarea Plan (City of Chula Vista 2003), and then send that assessment to the Wildlife Agencies for review.

### ***Wetlands Protection***

Development projects within the City of Chula Vista that contain wetlands are required to demonstrate that impacts to wetlands have been avoided to the greatest extent practicable and, where impacts are nonetheless proposed, that such impacts have been minimized. For unavoidable impacts to wetlands, the City of Chula Vista would apply the wetlands mitigation ratios identified in Chula Vista MSCP Subarea Plan. The wetlands mitigation ratios provide a standard for each habitat type, but may be adjusted depending on the functions and values of the impacted wetlands and the wetlands mitigation proposed by a project. The City of Chula Vista may also consider the wetland habitat type being impacted and used for mitigation in establishing whether these standards have been met.

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## **3 SURVEY METHODOLOGIES**

The current biological resources database for the Project Area was accumulated through a literature search, largely consisting of regional species descriptions, specific Otay Ranch studies (such as the golden eagle assessment performed by H.T. Harvey & Associates (see Appendix C, Golden Eagle Analysis and Reference Documents)), and recent surveys conducted by Dudek and HELIX Environmental Planning Inc. (HELIX) biologists (see Appendix D, Quino Checkerspot Butterfly Survey Reports). Biological surveys of the Project Area were originally conducted as part of the Otay Ranch GDP/SRP planning process by various consultants from 1989 through 1991 (e.g., Ogden 1992a). Biologists from Dudek and HELIX recently (2014 through 2017) updated surveys for the Project Area. The survey efforts focused on updated mapping of vegetation communities and land cover types, jurisdictional aquatic resources, and sensitive plant and animal species. Additional surveys for sensitive plant and wildlife species within limited areas of Planning Areas 16/19 were conducted in 2017 to address data gaps.

### **3.1 Literature Review**

Special-status plant and wildlife species present or potentially present within the Project Area were identified through an extensive literature search using the following sources: USFWS Critical Habitat and Occurrence Data (USFWS 2015a, 2017), CDFW's California Natural Diversity Database (CNDDB) (CDFW 2016a, 2016b, 2016c, 2017), California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Vascular Plants (CNPS 2017), the San Diego Plant Atlas (SDNHM 2017), and the Proctor Valley Vernal Pool Restoration Plan (AECOM and Hogan 2012). The literature review also included review of the list of plant and wildlife species covered under the MSCP Plan (MSCP 1998) and species considered sensitive by the County of San Diego (County of San Diego 2010a). The Soil Survey, San Diego Area, California Part 1 (Bowman 1973) also was reviewed to identify potentially occurring special-status plants based on known soil associations. Native plant community classifications used in this report follow Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the County and noted in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008).

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

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### 3.2 Field Reconnaissance

From 2014 through 2017, Dudek biologists conducted a Quino checkerspot butterfly habitat assessment, Hermes copper butterfly (*Lycaena hermes*) habitat mapping and surveys, arroyo toad (*Anaxyrus californicus*) habitat assessment, vernal pool branchiopods habitat assessment and surveys, vegetation mapping, and a jurisdictional delineation for the Project Area. Focused surveys and habitat assessments were also conducted for burrowing owl (*Athene cunicularia*), coastal California gnatcatcher (*Poliophtila californica californica*), western spadefoot (*Spea hammondi*), and rare plants. Table 3-1 lists the dates, conditions, and survey focus for each survey performed.

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

HELIX and its subconsultants conducted a Quino checkerspot butterfly habitat assessment and focused surveys in 2015 and 2016 (Helix 2015 and 2016). Detailed information regarding those surveys, including the survey schedule, is located in Appendix D.

Off-site roads that cross through CDFW-owned lands and County easements in Planning Area 16 were surveyed for vegetation and jurisdictional resources in 2016. Since these areas contain suitable habitat for coastal California gnatcatcher, focused surveys for this species were conducted in 2017.

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

**Table 3-1**  
**Schedule of Surveys**

Date	Hours <sup>a</sup>	Personnel	Focus	Conditions
<i>Quino Checkerspot Butterfly Habitat Assessment and Host Plant Mapping</i>				
2/21/14	0900–1200	KCD, KM	QCB	65°F–70°F, 30%–20% cc, 1–3 mph winds
3/19/14	0927–1540	KCD, KM, TSL	QCB	55°F–68°F, 0% cc, 0–4 mph winds
3/19/14	0900–1600	CJF, PCS	QCB	55°F–68°F, 0% cc, 0–4 mph winds
3/21/14	0730–1300	KCD, KM	QCB	57°F–64°F, 90%–10% cc, 0–5 mph winds

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**Table 3-1  
Schedule of Surveys**

Date	Hours <sup>a</sup>	Personnel	Focus	Conditions
<i>Quino Checkerspot Butterfly Habitat Assessment and Focused Surveys</i>				
2/12/15 to 4/2/15	Varied	HELIX and subconsultants	QCB	Varied <sup>b</sup>
2/15/16 to 3/31/16	Varied	HELIX and subconsultants	QCB	Varied <sup>b</sup>
<i>Burrowing Owl Habitat Assessment and Survey</i>				
4/4/14	0700–1440	DAM, KM, MP, JB	BUOW pass 1	50°F–61°F, 70%–90% cc, 0–2 mph winds
4/7/14	0729–1550	DAM, KM, JB, PCS	BUOW pass 1	63°F–83°F, 0% cc, 2–4 mph winds
4/8/14	0700–1300	DAM, MP	BUOW pass 1	60°F–83°F, 0% cc, 2–4 mph winds
4/9/14	0700–1130	DAM, JB, EAW, PCS	BUOW pass 1	62°F–81°F, 95%–90% cc, 0–2 mph winds
4/9/14	0733–1045	MP, TSL	BUOW pass 1	62°F–81°F, 95%–90% cc, 0–2 mph winds
5/6/14	0700–1200	DAM, EAW	BUOW pass 2	61°F–64°F, 80%–50% cc, 2–5 mph wind
5/7/14	0730–1100	DAM, TSL	BUOW pass 2	60°F–64°F, 100%–0% cc, 3–7 mph wind
6/23/14	0700–1100	TSL, CM, DAM	BUOW pass 3	59°F–67°F, 0%–100% cc, 2–6 mph winds
7/14/14	0700–1100	EAW, DAM	BUOW pass 4	63°F–72°F, 100%–70% cc, 0–4 mph winds
<i>Arroyo Toad Habitat Assessment</i>				
4/22/14	1000–1600	JDP, PML	ARTO	70°F–76°F, 5%–2%cc, 1–8 mph winds
<i>Vegetation Mapping and Jurisdictional Delineation</i>				
4/23/14	N/A	PCS, EAW, CJF, MP	VEG/JD	65°F, 0% cc, 0%–2 mph winds
4/25/14	0730–1341	MP, EAW, JB	VEG/JD	64°F–72°F, 10% cc, 0–8 mph winds
4/30/14	0715–1530	PCS, EAW, CJF, MP	VEG/JD	72°F, 0% cc, 5%–8 mph winds
5/1/14	0700–1600	PCS, EAW, JB, SCG	VEG/JD	74°F–93°F, 0%–3% cc, 3–8 mph winds
11/11/16	0800–1045	JM	VEG/JD	74°F–82°F, 0%–10% cc, 0–3 mph winds
<i>Rare Plant Survey</i>				
4/23/14	0730–1530	KCD, DAM	RP	58°F–75°F, 0% cc, 2–8 mph winds
4/24/14	0730–1555	EAW, KCD, DAM, KM, MP	RP	58°F–75°F, 0% cc, 2–8 (gusts up to 15) mph winds
5/1/14	0836–1545	BAS, KCD, DAM, MP	RP	75°F–92°F, 0% cc, 2–5 mph winds
5/2/14	0738–1521	BAS, DAM, KM MP	RP	70°F–100°F, 0% cc, 2–3 mph winds
5/6/15	1215–1800	EJB	RP	63°F, 80% cc, 2 mph winds
5/7/15	0730–1830	EJB	RP	63°F–69°F, 80%–100% cc, 2–3 mph winds
5/14/15	1000–1745	CJF, EJB	RP	55°F–63°F, 40%–100% cc, 0 mph winds; raining
5/18/15	0745–1730	CJF, EJB	RP	63°F–70°F, 40%–70% cc, 2–4 mph winds
5/19/15	0830–1100	CJF, EJB	RP	59°F–75°F, 70%–80% cc, 1–3 mph winds
4/26/16	0853–1607	JM, KM, AT, EJB, SCG, SC	RP	64°F–83°F, 10%–20% cc, 0–6 mph winds
5/4/16	0755–1630	JM, AT, EJB, JW	RP	65°F–72°F, 0% cc, 1 mph winds
6/2/16	0730–1300	AT, SCG, JW	RP	66°F–80°F, 0% cc, 2–6 mph winds
6/3/16	0720–1335	JM, KM, KCD	RP	64°F–84°F, 0%–100% cc, 0–3 mph winds

# Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19

**Table 3-1  
Schedule of Surveys**

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

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**Table 3-1  
Schedule of Surveys**

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



## Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19

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**Table 3-1  
Schedule of Surveys**

Date	Hours <sup>a</sup>	Personnel	Focus	Conditions
6/23/15	0850–1730	EJB, MP	Hermes Copper Focused Survey	74.8°F–85.8°F, 0% CC, 1–2 mph winds
6/24/15	0900–1300	MP	Hermes Copper Focused Survey	71°F–76°F, 0% cc, 0–2 mph winds
7/7/15	1300–1800	MP	Hermes Copper Focused Survey	79°F–81°F, 0% cc, 3–5 mph winds
7/8/15	1200–1740	MP	Hermes Copper Focused Survey	73°F–77°F, 0% cc, 2–6 mph winds
7/9/15	1130–1330	MP	Hermes Copper Focused Survey	73°F–76°F, 25% cc, 2–3 mph winds
7/10/15	1130–1330	MP, CJF	Hermes Copper Focused Survey	78°F, 20% cc, 1–3 mph winds
3/29/17	0911–1525	CJF, MO, SC	Hermes Copper Habitat Assessment	64°F–82°F, 0% cc, 0–5 mph winds
4/3/17	0815–1635	MO	Hermes Copper Habitat Assessment	57°F–63°F, 10% cc, 0–3 mph winds
4/4/17	0832–1526	CJF	Hermes Copper Habitat Assessment	58°F–75°F, 0% cc, 0–2 mph winds
4/11/17	0832–1705	MO	Hermes Copper Habitat Assessment	57°F–65°F, 0% cc, 0–5 mph winds
4/11/17	1200–1708	SC	Hermes Copper Habitat Assessment	68°F–71°F, 0% cc, 0–5 mph winds
4/13/17	0846–1822	MO	Hermes Copper Habitat Assessment	62°F, 60%–100% cc, 0–5 mph winds
4/13/17	1205–1808	SC	Hermes Copper Habitat Assessment	66°F–72°F, 20%–70% cc, 0–5 mph winds
4/15/17	1145–1500	SC	Hermes Copper Habitat Assessment	NR
4/19/17	1014–1626	CJF	Hermes Copper Habitat Assessment	70°F–73°F, 0%–10% cc, 0–2 mph winds
4/24/17	0750–1640	MO	Hermes Copper Habitat Assessment	57°F–66°F, 50%–100% cc, 0–3 mph winds
4/25/17	0823–1819	MO, SC	Hermes Copper Habitat Assessment	59°F–62°F, 70%–80% cc, 0–4 mph winds
5/1/17	0803–1530	KCD	Hermes Copper Habitat Assessment	63°F–78°F, 0% cc, 0–12 mph winds
5/1/17	0806–1435	MO	Hermes Copper Habitat Assessment	63°F–78°F, 0% cc, 0–4 mph winds
5/17/17	0949–1448	SC	Hermes Copper Focused Survey	70.5°F–73°F, 20%–30% cc, 0–5 mph winds
5/18/17	0926–1740	CJF, MO, PCS	Hermes Copper Focused Survey	70°F–72°F, 0% cc, 0–1 mph winds

## Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19

**Table 3-1  
Schedule of Surveys**

Date	Hours <sup>a</sup>	Personnel	Focus	Conditions
5/19/17	0845–1515	KS	Hermes Copper Focused Survey	76°F–89°F, 0% cc, 1–10 mph winds
6/1/17	1111–1722	EJB, KS, MO	Hermes Copper Focused Survey	70°F–72°F, 0%–20% cc, 0–7 mph winds
6/5/17	0921–1638	SC	Hermes Copper Focused Survey	70.6°F–80.4°F, 10%–20% cc, 1–6 mph winds
6/9/17	09 24 – 1246	SC	Hermes Copper Focused Survey	73°F–86.4°F, 0%–10% cc, 0–2 mph winds
6/15/17	0825–1602	CJA, KS, MO	Hermes Copper Focused Survey	70°F–93°F, 0% cc, 0–2 mph winds
6/18/17	0855–1516	EJB	Hermes Copper Focused Survey	73°–82°F, 0%–10% cc, 0–3 mph winds
6/23/17	1000–1745	SC, MF	Hermes Copper Focused Survey	76°F–78°F, 10%–20% cc; 1–4 mph winds
7/6/17	0905–1614	CJF	Hermes Copper Focused Survey	79°F–89°F, 0%–60% cc, 0–1 mph winds
7/6/17	0808–1521	KS	Hermes Copper Focused Survey	73°F–88°F, 0%–20% cc, 0–5 mph winds
7/6/17	0830–1800	MF, SC	Hermes Copper Focused Survey	74°F–77°F, 0%–10% cc, 0–5 mph winds
7/7/17	0810–1116	KS	Hermes Copper Focused Survey	82°F–95°F; 0%–10% cc, 0–4 mph winds
7/8/17	0900–1515	SC	Hermes Copper Focused Survey	76°F–94°F, 10%–40% cc, 0–4 mph winds
<i>Listed Large Branchiopods (Fairy Shrimp) Habitat Assessments and Surveys<sup>d</sup></i>				
4/11/14	0850–1430	TSL	Vernal Pool Habitat Assessment 1	66°F–88°F, 10% cc, 0–3 mph winds
6/18/14	N/A	TSL	Vernal Pool Habitat Assessment 2	N/A
12/19/14	0830–1315	DAM, PML, TSL	Fairy Shrimp Survey 1	57°F–75°F, 0% cc, 0–3 mph winds
1/2/15	0800–1430	DAM, TSL	Fairy Shrimp Survey 2	43°F–63°F, 0% cc, 0–1 mph winds
1/13/15	0903–NR	DAM	Fairy Shrimp Survey 3	57°F–63°F, NR cc, NR mph winds
1/16/15	0730–NR	DAM, TSL	Fairy Shrimp Survey 4	42°F–NR°F, 0% cc, 0 mph winds
1/30/15	0747–NR	DAM	Fairy Shrimp Survey 5	57°F–63°F, NR cc, NR mph winds
2/13/15	N/A	DAM	Fairy Shrimp Survey 6	53°F–74°F, NR cc, 1–6 mph winds
3/3/15	0910–1400	DAM, TSL	Fairy Shrimp Survey 7	68°F–75°F, 0%–10% cc, 0 mph winds
3/16/15	1238–NR	DAM	Fairy Shrimp Survey 8	88°F, NR cc, 1–4 mph winds
3/30/15	N/A	DAM	Fairy Shrimp Survey 9	55°F–80°F, NR cc, 1–8 mph winds
5/18/15	0850–1210	TSL	Fairy Shrimp Survey 10	NR°F–77°F, 25%–40% cc, 1–4 mph winds
6/1/15	N/A	TSL	Fairy Shrimp Survey 11	59°F–79°F, NR cc, 0 mph winds
10/22/15	N/A	TSL, MP	Dry Season Survey	N/A

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**Table 3-1  
Schedule of Surveys**

Date	Hours <sup>a</sup>	Personnel	Focus	Conditions
11/10/15	NR	PML	Fairy Shrimp Survey 1	NR
12/29/15	1004-1259	TSL	Fairy Shrimp Survey 2	59°F–66°F, 0% cc, 1–4 mph winds
1/5/16	0907-1018	TSL	Fairy Shrimp Survey 3	53°F, 100% cc, 0 mph winds
1/10/16	0956-1229	TSL	Fairy Shrimp Survey 4	56°F, 100% cc, 0 mph winds, sprinkling
1/12/16	1026-1338	TSL	Fairy Shrimp Survey 5	59°F–62°F, 0% cc, 0 mph winds
1/19/16	0835-1045	TSL	Fairy Shrimp Survey 6	53°F–60°F, 0-90% cc, 0–1 mph winds
1/26/16	NR	TSL	Fairy Shrimp Survey 7	NR
2/2/16	0740-1250	TSL	Fairy Shrimp Survey 8	46°F–53°F, 0% cc, 1–3 mph winds
2/9/16	0844-NR	TSL	Fairy Shrimp Survey 9	71°F, 0% cc, 0 mph winds
2/16/16	NR	TSL	Fairy Shrimp Survey 10	NR
2/22/16	NR	TSL	Fairy Shrimp Survey 11	NR
3/10/16	0825-1137	TSL	Fairy Shrimp Survey 12	59°F–66°F, 0-10% cc, 0 mph winds
3/16/16	1037-1300	TSL	Fairy Shrimp Survey 13	80°F–87°F, 0% cc, 0-4 mph winds
3/22/16	NR	TSL	Fairy Shrimp Survey 14	NR
3/29/16	NR	TSL	Fairy Shrimp Survey 15	NR
4/13/16	1240-1500	TSL	Fairy Shrimp Survey 16	73°F–75°F, 0% cc, 0–2 mph winds
4/20/16	NR	TSL	Fairy Shrimp Survey 17	NR
5/4/16	NR	TSL	Fairy Shrimp Survey 18	NR
5/12/16	NR	TSL	Fairy Shrimp Survey 19	NR
11/18/16	1200-1600	TSL	Dry Season Survey	70°F–69°F, 0% cc, 0 mph wind
<i>Western Spadefoot Surveys</i>				
3/7/17	0759-1230	TSL	Pass 1	49°F–74°F, 0% cc, 0 mph winds
3/8/17	1100-1400	TSL	Pass 1	76°F–81°F, <10%cc, 1–4mph winds
3/9/17	1130-1510	TSL	Pass 1	76°F–80°F, 0% cc, 0 mph winds
3/17/17	0910-1448	TSL	Pass 2	70°F–84°F, 0% cc, 0 mph winds
3/28/17	1235-1530	TSL	Pass 3	64°F–67°F, 0% cc, 0 mph winds
<i>Additional Parcels</i>				
5/15/14	0700–1100	EAU, DAM	Veg/JD, BUOW, RP	75°F–100°F, 0% cc, 2–7 mph winds
5/18/15	1730–1830	CJF, EJB	VEG/JD (Off-Site Waterline)	63°F–70°F, 40%–70% cc, 2–4 mph winds
6/15/15	1100–1600	BAO	BUOW/CAGN Habitat Assessment (Off-Site Waterline)	90°F–100°F, 0% cc, 3–5 mph winds

**Definitions:** °F = degrees Fahrenheit; cc = cloud cover; mph = miles per hour; NR = not recorded; N/A = not applicable.

**Personnel:** KCD = Kathleen Dayton; KM = Kyle Mathews; DAM= Danielle Mullen; EAU = Emily Wier; JB = Joseph Broad; CM = Caroline Monaco; SCG = Scott Gressard; MP = Marshall Paymard; CJF = Callie Ford; PCS = Patricia Schuyler; EJB = Erin Bergman; TSL = Thomas Liddicoat; JDP = Jeff Priest; PML = Paul Lemons; AMH = Anita Hayworth, PhD; BAO = Brock Ortega; BAS = Britney Strittmater; TWP = Tricia Wotipka; SJ = Sienna Josh; JM = Jake Marcon; AT = Andy Thomson; SC = Shana Carey; JW = Janice Wondolleck, MO = Monique O'Conner; KS = Kevin Shaw; ME = Megan Enright; JT = Jayme Timberlake.

**Survey Designations/Focus:** QCB = habitat assessment for Quino checkerspot butterfly; BUOW = focused survey for burrowing owl; ARTO = arroyo toad habitat assessment; RP = rare plant survey; VEG = vegetation mapping; JD = jurisdictional delineation; CAGN = focused survey for coastal California gnatcatcher.

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## Notes:

- <sup>a</sup> Hours and weather conditions for the jurisdictional wetland delineation, vegetation mapping, rare plant surveys, and fairy shrimp may be reported as N/A (not applicable) because they are not relevant to the outcome of those surveys.
- <sup>b</sup> The schedule for the focused Quino checkerspot butterfly surveys is included in Appendix D of the focused survey reports.
- <sup>c</sup> Weekly Hermes copper surveys were spaced over several days due to weather conditions. Some surveys were conducted during high cloud cover days due to the number of active butterflies observed in those conditions.
- <sup>d</sup> Conditions for focused fairy shrimp surveys that were not recorded (NR) were site checks to detect and confirm pooling after rainfall, and therefore data was not collected.

### 3.2.1 Resource Mapping

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

### 3.2.2 Plants and Wildlife

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

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

### 3.2.3 Jurisdictional Delineation

Dudek biologists conducted a formal jurisdictional delineation in April and May 2014 for the Project Area. A delineation for the off-site roads located within the CDFW parcels in Planning Area 16 was conducted in November 2016. The delineations were conducted in accordance with

## Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19

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

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

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

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

- **ACOE and RWQCB:** “Wetland” and “non-wetland waters.” Wetland waters of the United States and non-wetland waters of the United States are subject to regulation by ACOE and RWQCB, pursuant to the Clean Water Act. Within the Project Area, ACOE waters of the United States and wetlands, and RWQCB waters of the United States and wetlands overlap, and therefore are combined under one term: “non-wetland waters” or “wetlands.”
- **CDFW:** “Riparian areas” and “streambeds.” Lakes, rivers, and streambeds, including any associated riparian habitat, are subject to regulation by CDFW pursuant to the California Fish and Game Code. Within the Project Area, CDFW streambeds are synonymous with



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ACOE and RWQCB non-wetland waters, and CDFW riparian areas are synonymous with ACOE and RWQCB wetlands.

### **3.3 Focused Surveys for Special-Status Biological Resources**

Special-status, or sensitive, biological resources are those defined by the County or other regulatory agency as (1) species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened population sizes; (2) species and habitat types recognized by local and regional resource agencies as sensitive; (3) habitat areas or plant communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; or (4) wildlife corridors and habitat linkages.

Dudek biologists and/or other qualified biologists conducted focused surveys and/or habitat assessments for the following sensitive biological resources: focused surveys for rare plants; a habitat assessment, larval host plant survey, and protocol surveys for Quino checkerspot butterfly; focused protocol surveys for coastal California gnatcatcher; a habitat assessment and four-pass protocol burrowing owl survey; a habitat assessment for arroyo toad; a habitat assessment and protocol surveys for Hermes copper butterfly; nest survey and habitat assessment for golden eagle; a habitat assessment and protocol wet-season and dry-season surveys for listed large branchiopods (i.e., fairy shrimp); and focused surveys for western spadefoot. Incidental detections of wildlife species, either through sight, calls, tracks, scat, or other signs, were also recorded. Dates and site conditions for the field efforts performed as part of this biological report are organized in Table 3-1.

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

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

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Field survey methods and mapping of rare plants generally conformed to CNPS's *Botanical Survey Guidelines* (CNPS 2001); *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (CDFG 2000); and *General Rare Plant Survey Guidelines* (Cypher 2002). Special-status plant observations were mapped in the field using a GPS receiver or were mapped directly onto an aerial field map to record the locations of special-status plant populations. The special-status plant observations were then digitized into the geodatabase by Dudek GIS technician Andrew Greis using ArcGIS software.

### 3.3.2 Quino Checkerspot Butterfly Habitat Assessment and Focused Survey

Quino checkerspot butterfly is not a Covered Species under the MSCP.<sup>4</sup> In 2014, Dudek biologists reviewed the Project Area to determine which areas of the Project Area could be excluded as Quino checkerspot butterfly habitat. HELIX reviewed the Project Area in 2015 and again in 2016. Excluded areas were based on USFWS survey guidelines (USFWS 2014a).

Areas not recommended for Quino checkerspot butterfly surveys (USFWS 2014a):

- Orchards, developed areas, or small in-fill parcels (plots smaller than an acre completely surrounded by urban development) largely dominated by non-native vegetation.
- Active/in-use agricultural fields without natural or remnant inclusions of native vegetation or that are completely without any fallowed or unplowed areas.
- Closed-canopy woody vegetation including forests, riparian areas, shrub-lands, and chaparral. "Closed-canopy woody vegetation" describes shrubs or trees growing closely together in which the upper portions of the vegetation converge (are touching) to the point that the open space between two or more plants is not significantly different than the open space within a single plant. Closed canopy shrub-land and chaparral are defined as vegetation so thick that it is inaccessible to humans except by destruction of woody vegetation (branches).

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<sup>4</sup> As described in Chapter 2, Applicable Regulations, of this report, the MSCP addresses the potential impacts of urban growth, natural habitat loss, and species endangerment, and creates a plan to mitigate for the potential loss of Covered Species and their habitat due to the direct impacts of future development of public and private lands within the MSCP Plan Area. The County received from USFWS long-term Take Authorizations that allow the taking of certain Covered Species, which are also listed species, incidental to land development and other lawful land uses that are authorized by the County. A species that is not an MSCP Covered Species is not allowed take through the MSCP (MSCP 1998).

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### **2014 Quino Checkerspot Butterfly Habitat Assessment**

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

### **2015 Quino Checkerspot Butterfly Habitat Assessment**

In 2015, HELIX biologists conducted a habitat assessment, host plant mapping, and focused protocol-level surveys for Quino checkerspot butterfly within portions of the Project Area (Figure 3-1a, 2015 Quino Checkerspot Butterfly Survey Area). The habitat assessment focused on the Village 14 Development Footprint and Proctor Valley Road alignments, and included a buffer. The buffer was determined in coordination with the Proposed Project's design engineer based on the potential for design changes related to the Village 14 Development Footprint at that time (generally about a 100-foot buffer from the potential Village 14 Development Footprint at that time). The HELIX survey area also included portions of CDFW lands adjacent to the Project Area boundary, which are analyzed as part of a Proposed Project alternative. The full extent of the 2015 survey area is shown in Figure 3-1a. However, other than the off-site areas described in Chapter 1 of this report, these CDFW lands are not included in the Proposed Project, and therefore they are not included in the discussion or results. Planning Areas 16/19 were not included in the 2015 assessment since, at that time, development was not proposed in this area. The purpose of the habitat assessment was to identify those portions of the Project Area that do not support Quino checkerspot butterfly and exclude them from the amount of suitable habitat available to the species. This assessment was based on USFWS survey protocol (USFWS 2014a). Of the 415 total acres evaluated by HELIX biologists in 2015, 119.2 acres within the Village 14 Development Footprint were considered excluded areas (see Figure 3-1a). Therefore, 295.3 acres of the Village 14 Development Footprint were considered suitable for Quino checkerspot butterfly and were part of the protocol surveys for the species.

As part of the weekly protocol Quino checkerspot butterfly surveys, HELIX biologists mapped the locations and approximate number of individuals of Quino checkerspot butterfly host plants within the survey area (i.e., within the Village 14 Development Footprint only). If host plants

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occurred in areas smaller than 250 square feet, they were mapped as “points.”<sup>5</sup> If the host plants occurred in areas greater than 250 square feet, they were mapped as “patches.” Dotseed plantain (*Plantago erecta*) was mapped in patches of low density<sup>6</sup> (1–100 plants), medium density (100–1,000 plants), and high density (1,000–10,000+ plants). Host plant mapping for Otay Ranch RMP Preserve areas was conducted in April and August 2015. These surveys were conducted to map potential Quino checkerspot butterfly resources within the Otay Ranch RMP Preserve. The April 2015 Preserve host plant mapping was conducted in the areas closest to the Village 14 Development Footprint (HELIX 2015). The surveys did not include the small disjunct Otay Ranch RMP Preserve parcel southeast of the Development Footprint. Additional host plant surveys within the remaining Otay Ranch RMP Preserve areas were conducted in August 2015. Prior to conducting the August 2015 mapping, HELIX reviewed a current aerial photograph of the site to identify “signatures” on the aerial photograph of likely open habitat areas that may contain low vegetative cover and cryptogamic soils. Those areas were then assessed in the field on foot and compared to areas within the Village 14 Development Footprint, where 1,000–10,000+ host plant individuals were mapped. The areas that contained low vegetative cover and highly developed cryptogamic soils were documented with a GPS unit and mapped as “Potential Quino Resource Areas.”

### 2015 Quino Checkerspot Butterfly Focused Surveys

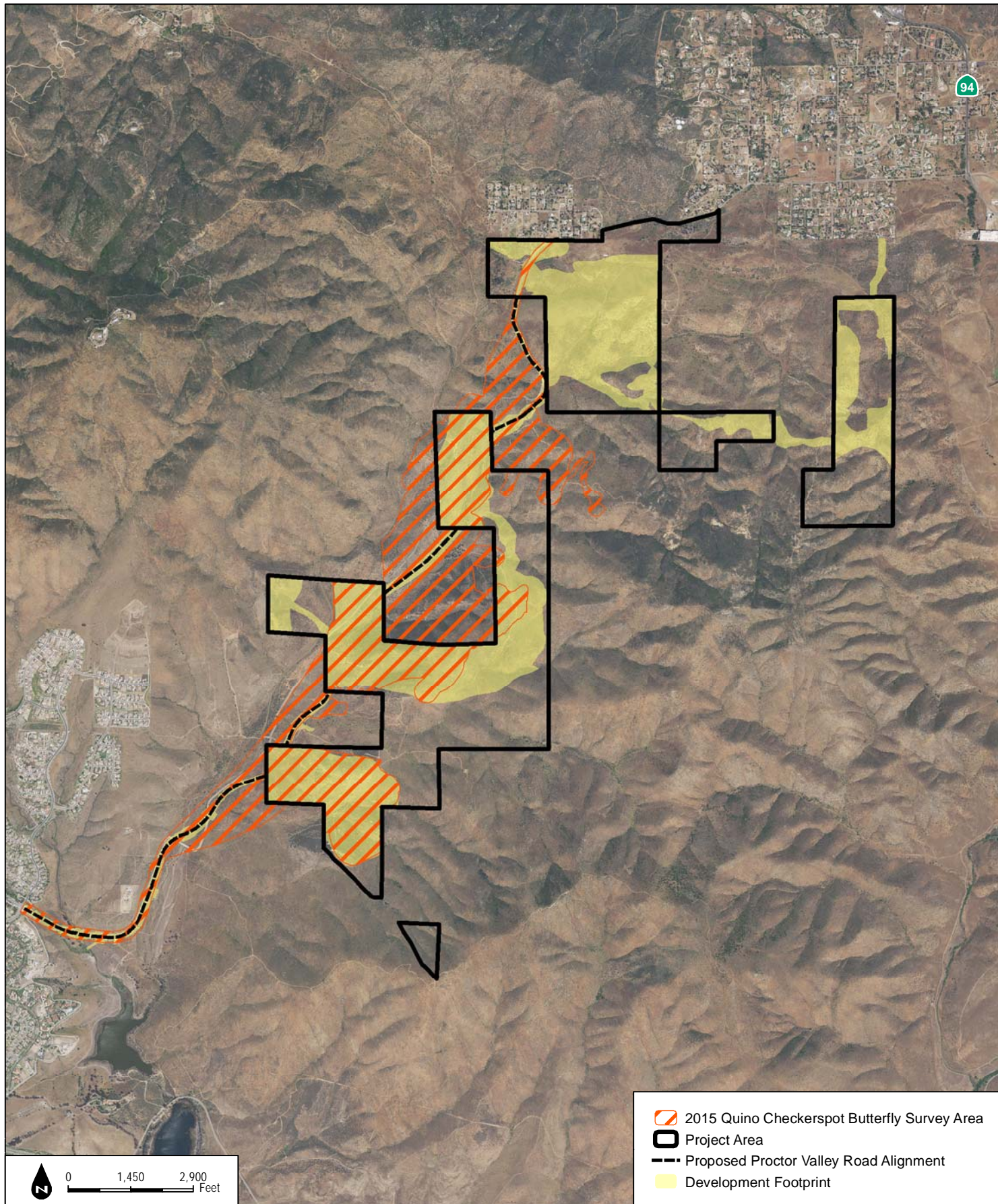
In addition to the 2015 Quino checkerspot butterfly habitat assessments, HELIX biologists and a team of permitted subconsultant biologists conducted focused protocol surveys of the Village 14 Development Footprint, including potential Proctor Valley Road realignment areas and the appropriate buffer (described above for the February 2015 Quino checkerspot butterfly habitat assessment), over a 7-week period between February 17 and April 2, 2015. Due to deterioration of host plant conditions and the relatively small number of Quino checkerspot butterflies observed in the County at that time, the 2015 surveys were discontinued during the seventh week. HELIX had several communications with USFWS staff (i.e., Susan Wynn and Alison Anderson) to confirm the extremely limited Quino checkerspot butterfly sightings in San Diego County prior to making a decision to stop the weekly surveys. Resource mapping for the Village 14 Development Footprint and off-site areas is representative of Quino checkerspot butterfly resources, but no Quino checkerspot butterflies were observed within the Development Footprint. The results of the surveys are discussed further in Section 6.2, Analysis of Project Effects, and they are also provided in Appendix D.

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<sup>5</sup> For the purposes of incorporating the acreage of point locations, HELIX used the midpoint of the range (i.e., 125 square feet) as the average host plant size for each mapped point, for the Project Area.

<sup>6</sup> The term “density” is used to describe the number of plants per patch. Although this is not a true measure of density due to the variable sizes of patches, the term is used for descriptive purposes in this section.





SOURCE: NAIP 2016; Hunsaker 2017; Helix 2015

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FIGURE 3-1a  
2015 Quino Checkerspot Butterfly Survey Area

NOTE: Survey areas may include additional acreage outside of the Project Area



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### **2016 Quino Checkerspot Butterfly Habitat Assessment**

HELIX biologists completed a site habitat assessment in accordance with the 2016 Quino Checkerspot Butterfly Survey Protocol (2016 USFWS Survey Protocol) that was developed in coordination with USFWS, the County of San Diego, and the Building Industry Association (USFWS 2016). The 2016 Quino checkerspot butterfly habitat assessment covered portions of the Project Area, including Otay Ranch RMP Preserve and off-site improvement areas, and also included portions of CDFW lands adjacent to the Project Area<sup>7</sup> (Figure 3-1b, 2016 Quino Checkerspot Butterfly Survey Area). The purpose of the site assessment was to determine how much of the total Project Area contained habitat that could support Quino checkerspot butterfly, and to determine the areas to be surveyed. Habitat that was not likely to support Quino checkerspot butterfly was excluded. Areas were excluded based on, and in accordance with, guidance provided in the 2016 USFWS Survey Protocol, and then mapped on an aerial photograph as required by the protocol. Several different aerial photographs, including from Google Earth and Bing Maps, were used to aid in assessing canopy cover and habitat density, as well as to locate suitable openings in habitat.

The habitat assessment within the Project Area was conducted on foot. Based on this habitat assessment and consultation with USFWS, approximately 14.4 acres of the 808.1-acre Development Footprint (i.e., impacted portions of the Project Area, including on-site and off-site development, graded LDA (Planning Area 16 only), and impacts within the Otay Ranch RMP Preserve) were considered excluded areas and removed from further consideration in Quino checkerspot butterfly surveys, leaving a total of 793.7 acres to be surveyed. This same evaluation process indicated that 6.2 acres of the 560.9 acres of non-impacted portions of the Project Area (i.e., Otay Ranch RMP Preserve, non-graded portions of LDA, and Conserved Open Space) should also be excluded, leaving 554.7 acres to be surveyed for Quino checkerspot butterfly.

The excluded areas represent dense patches of chamise chaparral or southern mixed chaparral, developed areas, and eucalyptus woodland. Dense patches of excluded chaparral represented closed-canopy vegetation where the branches from shrubs overlapped, leaving no open space areas and preventing physical access to the area. Areas where there were suitable openings in the vegetation within at least 100 meters of each other were included in the survey area. Absent the excluded areas, the total 2016 survey area associated with the Project Area was 1,348.4 acres. This 1,348.4-acre Quino checkerspot butterfly survey area was divided into smaller areas and distributed among the surveyors.

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<sup>7</sup> The majority of the CDFW lands are not discussed in this assessment because they are excluded from the Proposed Project. Only the CDFW lands within the Proctor Valley Road alignment and access roads are addressed.

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

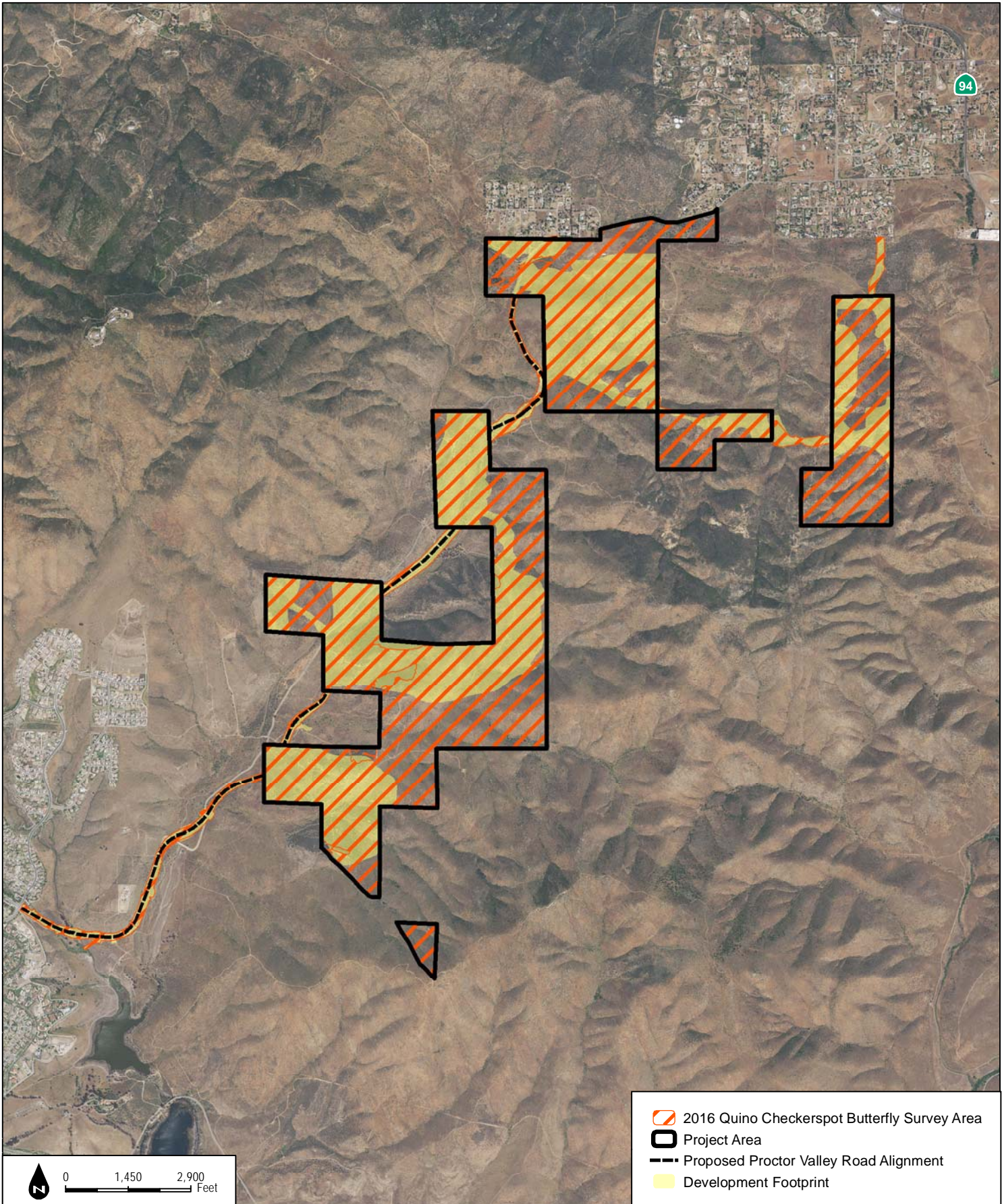
Using a GPS unit, HELIX biologists mapped the locations and approximate number of individual Quino checkerspot butterfly host plants within the 1,348.4-acre survey area (i.e., within the Project Areas defined as suitable habitat) in February 2016, prior to the start of the 2016 flight season. Host plant mapping was updated during the 2016 protocol surveys, since changes in field conditions were noted. Mapping of host plants followed the density categories (low, medium, high) and methods (points vs. patches) described for the 2015 habitat assessment. Nearly all of the areas mapped as low or medium density consisted of points (i.e., in locations less than 250 square feet). Areas mapped as high density also tended to consist of points, but there were some patches as well, ranging from 250 square feet (0.006 acres) to 1.43 acres. Nearly all of the owl's clover (*Castilleja* spp.) was mapped as points, with one patch mapped that was larger than 250 square feet; the owl's clover generally consisted of patches containing less than 10 individuals.

Permitted Quino checkerspot butterfly biologists considered the host plants that emerged in 2016 to be above average throughout San Diego County; host plant conditions in 2015 were considered to be representative of an exceptional year.

### **2016 Quino Checkerspot Butterfly Protocol Surveys**

HELIX biologists and a team of permitted subconsultant biologists conducted protocol surveys for Quino checkerspot butterfly individuals within the Project Area in 2016. Surveys began on February 24, 2016, and continued through March 31, 2016. Surveys began following the first observation of adult Quino checkerspot butterfly in San Diego County (reported by Korey Klutz with Klutz Biological Consulting) on February 22, 2016, at east Otay Mesa (Quino Biologists United 2016). Surveys were discontinued after the fifth survey week, in coordination with USFWS personnel (Porter 2016), based on the lack of recent regional Quino checkerspot butterfly sightings, which indicated that the flight season along the coastal regions had come to an end. The last fresh Quino checkerspot butterfly sighting in the County was reported on March 17, 2016, which was 2 weeks prior to the last survey, when a Quino checkerspot butterfly was observed at San Vicente Reservoir. The last reported Quino checkerspot butterfly sighting of a single worn individual occurred on March 25, 2016, in Marron Valley, which reinforced that the flight season was nearing completion. The surveys conducted within the Project Area were negative for Quino checkerspot butterfly adults and larvae (i.e., no Quino checkerspot butterfly adults or larvae were observed).





SOURCE: NAIP 2016; Hunsaker 2017; Helix 2016

FIGURE 3-1b  
2016 Quino Checkerspot Butterfly Survey Area

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NOTE: Survey areas may include additional acreage outside of the Project Area

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### **3.3.3 Coastal California Gnatcatcher Surveys**

Coastal California gnatcatcher is a federally listed threatened species and a Covered Species under the MSCP. Dudek biologists conducted focused protocol surveys for coastal California gnatcatcher in the Project Area in summer and fall 2014 (Figure 3-2, California Gnatcatcher Survey Area and Results) (Appendix E, Coastal California Gnatcatcher Survey Reports). Additional surveys were conducted for off-site roads within Planning Area 16 in 2017. Some of the survey areas and observations (see Figure 3-2) are outside the Project Area. These additional locations were retained to give context of the populations within and surrounding the Project Area. Dudek biologists with federal permits for California gnatcatcher surveys conducted such surveys pursuant to USFWS's coastal California gnatcatcher presence/absence survey protocol (USFWS 1997). The survey included three visits at a minimum of 7-day intervals. Survey routes completely covered areas of coastal scrub habitat within the Project Area. Survey conditions (time of day and weather conditions) (see Table 3-1) were within protocol limits specified in the survey protocol. The permitted biologists played a tape of recorded vocalizations approximately every 50 to 100 feet to elicit a response from any gnatcatcher present within the vicinity. Other avian species incidentally detected during surveys were recorded.

### **3.3.4 Burrowing Owl Habitat Assessment and Focused Surveys**

Burrowing owl is a Covered Species under the MSCP and is also a USFWS Bird of Conservation Concern. Prior to conducting burrowing owl habitat surveys, relevant sources pertaining to burrowing owl occurrences, including the CNDDB (CDFW 2015) and USFWS occurrence data (USFWS 2015a), were examined, along with SANGIS (SANDAG 2012) mapped vegetation communities for the Project Area and surrounding areas. A habitat assessment for burrowing owl was conducted based on CNDDB and USFWS records of this species in the vicinity (approximately 3 and 5 miles southwest) and vegetation communities present (i.e., non-native grassland, open coastal sage scrub, disturbed habitat). During the habitat assessment, the entire potential Project Area, including areas that would be directly/indirectly impacted by the Proposed Project, as well as known Otay Ranch RMP/MSCP Preserve areas, were surveyed for suitable burrows and habitat. Both suitable and unsuitable habitat for burrowing owl were mapped. The habitat assessment also served as the first survey pass. Based on the presence of potentially suitable burrows, suitable vegetation communities within the Project Area, and the prior observation of the species in the vicinity, subsequent focused burrowing owl surveys were initiated in areas that contained suitable habitat (Figure 3-3, Burrowing Owl Survey Area). According to CDFW's Staff Report on Burrowing Owl Mitigation guidelines, "essential habitat for the burrowing owl in California must include suitable year-round habitat, primarily for breeding, foraging, wintering and dispersal habitat consisting of short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial

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mammal dens, well-drained soils, and abundant and available prey within close proximity to the burrow” (CDFG 2012).

Focused surveys followed the Staff Report on Burrowing Owl Mitigation (CDFG 2012) guidelines. Four site visits were conducted between April and July 2014 during daylight hours (see Table 3-1). The first visit was conducted in April 2014 and the last three visits were timed to occur at least 3 weeks apart, May through July 2014, during the peak of the breeding season.<sup>8</sup> The first visit included searching for the presence of suitable burrows and/or burrow surrogates (>11 centimeters (4 inches) in diameter (height and width) and >150 centimeters (60 inches) in depth). The first survey/habitat assessment included walking straight-line transects spaced 7 to 20 meters (23 to 66 feet) apart. Subsequent surveys were conducted using meandering transects. At the start of each transect and at least every 100 meters (330 feet), the entire visible survey area was scanned using binoculars (10×40 magnification) for burrowing owls. Potential burrows within the identified suitable habitat were examined for signs and documented using a GPS unit. Surveys were conducted under good weather conditions that would permit clear detection of individuals should they be present within the Project Area during the time of the surveys. See Section 3.4 for survey limitations.

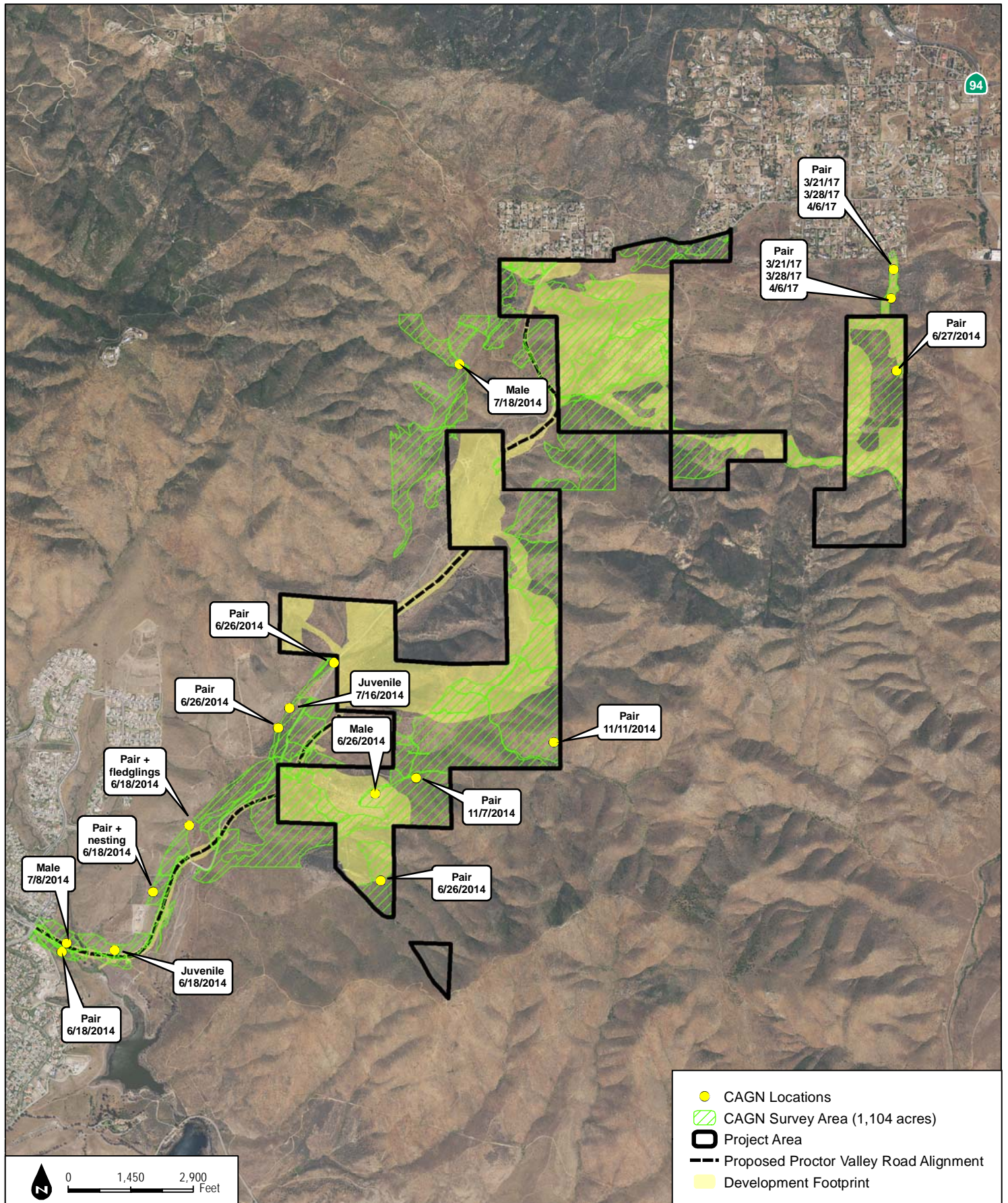
An additional habitat assessment conducted in June 2015 on the 1296 zone water tank parcel, no longer a part of the Proposed Project, determined that no additional surveys were required due to unsuitable habitat, slope, and lack of burrows.

Based on the surveys described above, the Project Area supports 215 acres of suitable habitat for burrowing owl, consisting of non-native grassland and open areas of coastal sage scrub (including disturbed) that contain burrows, burrow surrogates, or fossorial mammal dens (Figure 3-3). No burrowing owls were observed during the focused surveys of the Project Area conducted in 2014. In 2015, while conducting rare plant surveys, biologists observed burrowing owl sign consisting of white wash, feathers, and pellets at one location in the central portion of the Project Area.

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<sup>8</sup> In California the burrowing owl breeding season extends from February 1 through August 31 (CDFG 2012). However, visits were timed to occur within the commonly accepted breeding season (April 15 through July 15) (CBOC 1997).





SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 3-2  
California Gnatcatcher Survey Area and Results

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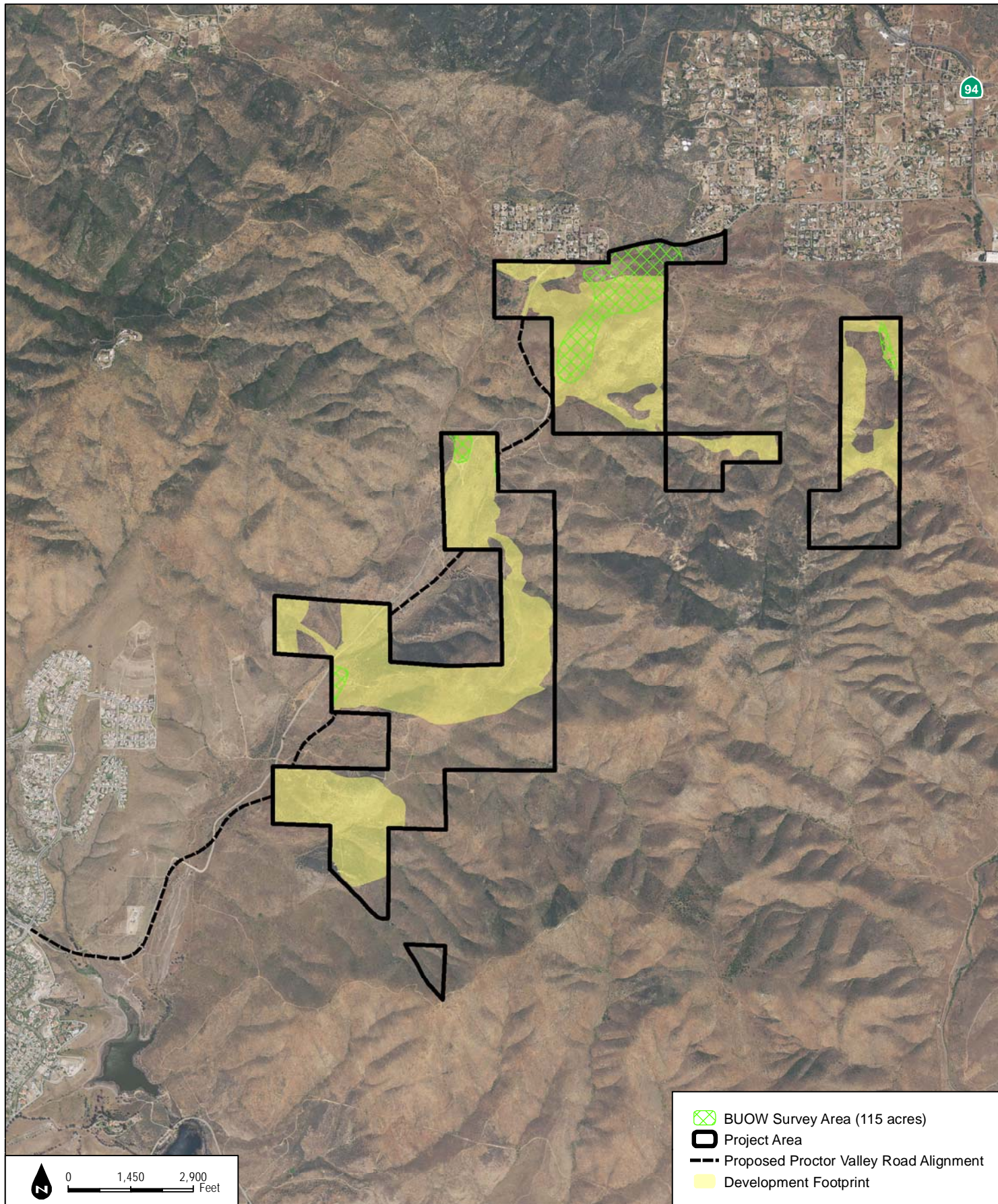
NOTE: Survey areas may include additional acreage outside of the Project Area

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SOURCE: NAIP 2016; Hunsaker 2017

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FIGURE 3-3

## Burrowing Owl Survey Area

NOTE: Survey areas may include additional acreage outside of the Project Area

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### **3.3.5 Golden Eagle Foraging and Nesting Habitat Assessment**

Golden eagle is protected under the federal BGEPA (16 U.S.C. 668 et seq.) and under the California Fish and Game Code as a “fully protected” species. In addition, golden eagle is a Covered Species under the MSCP, which provides federal “take” coverage for the species. The MSCP County Subarea Plan incorporates the Otay Ranch RMP and MSCP Preserve, which together provide the CEQA mitigation necessary to offset impacts to golden eagle habitat. The County, when it adopted the Otay Ranch GDP/SRP in 1993, assumed and approved development of Village 14 and Planning Areas 16/19. The RMP and the MSCP County of San Diego Subarea Plan likewise made the same assumption.

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

However, the vegetation communities listed in Table 3-3 of the MSCP Plan are generalized and do not represent subcategories of vegetation communities that are present within the Project Area. Therefore, to determine which vegetation communities within the Project Area should be included in the suitable habitat model, Dudek overlaid the MSCP Plan Preserve boundary with the vegetation mapping used for the entire MSCP San Diego County Subarea Plan mapping effort (SANDAG 1995). The MSCP Plan mapping for the entire County relies on Holland (1986) to classify the vegetation communities within the MSCP Plan region. This procedure is known as “crosswalking” the data, and is commonly performed to reconcile biological data from different sources. As described in detail in Appendix C of this report, this exercise resulted in the need to confirm that the San Diego Association of Governments (SANDAG) data matched the acreage presented Table 3-3 of the MSCP Plan so that this data could be used for further analysis.

The total amount of golden eagle habitat in the MSCP study area is 264,448 acres. Table 3-5 of the MSCP Plan states that the conservation goal for golden eagle is preservation of 53% (approximately 139,000 acres) of golden eagle foraging/nesting habitat (MSCP 1998).

In addition, Dudek overlaid the MSCP Plan vegetation mapping with current HabiTrak (Habitat Tracking Reporting) data available from the SANDAG SANGIS Regional Data Warehouse (SANDAG 2015). HabiTrak is a GIS-based habitat-tracking tool developed by the Wildlife Agencies (CDFW and USFWS) in conjunction with SANDAG and other local agencies that

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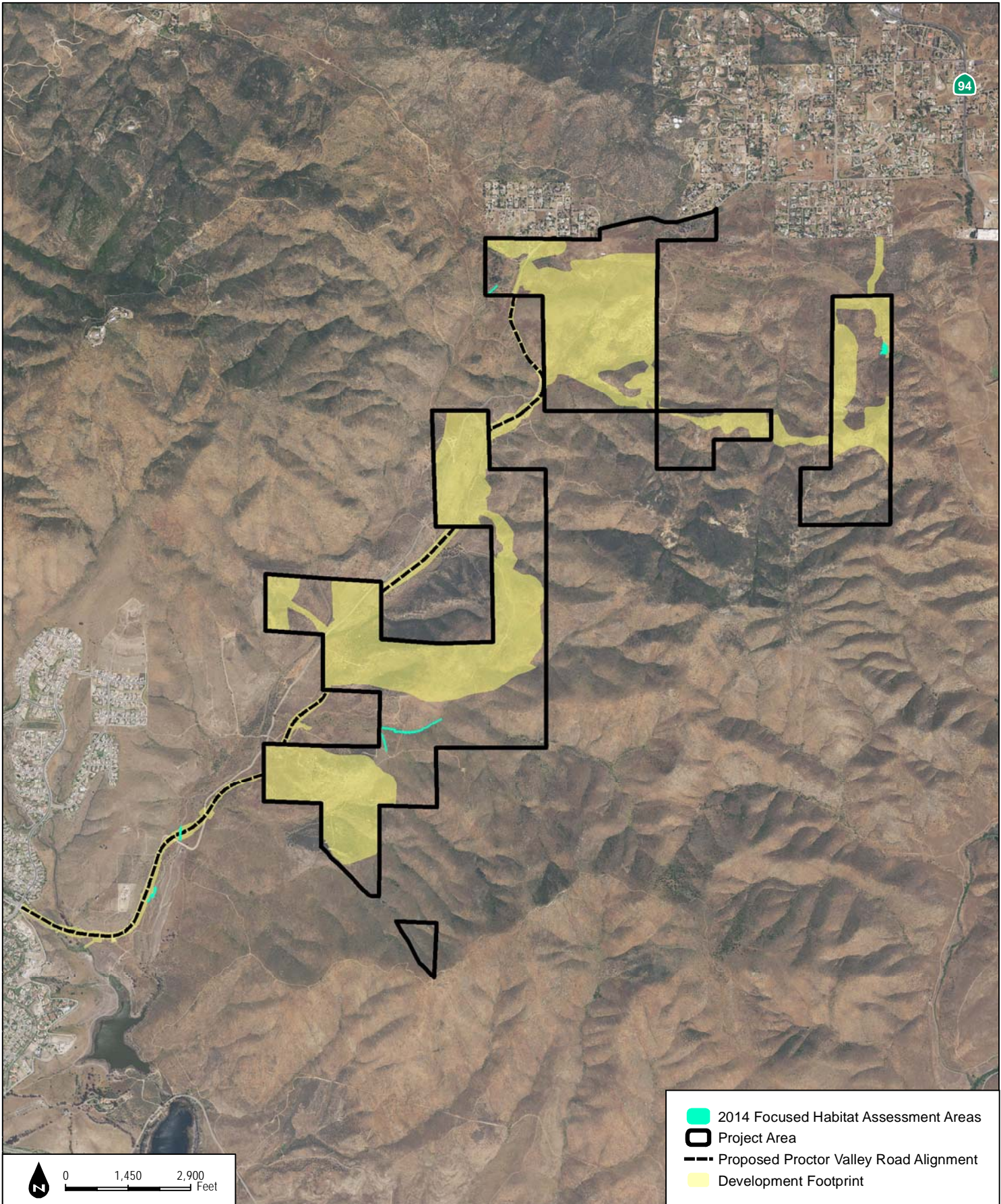
provides a standardized process for tracking and reporting on habitats conserved (i.e., gain) and lost over time (i.e., loss). CDFW is charged with maintaining the dataset. The vegetation communities identified within the MSCP Plan as targeted for conservation within the MHPA have also been identified as a “gain” or a “loss” in the HabiTrak data. The HabiTrak data maintained by CDFW within the SANGIS database varies slightly from the County of San Diego’s records, since the County manually calculates gains and losses (County of San Diego 2015a). The analysis is provided in Appendix C of this report.

Additionally, H.T. Harvey & Associates conducted periodic 2-day surveys in 2016 and 2017 during the golden eagle breeding season to document activity at San Miguel Mountain, the Jamul Mountains, and Proctor Valley areas (Appendix C).

### **3.3.6 Arroyo Toad Habitat Assessment**

Arroyo toad is a federally listed endangered species and a Covered Species under the MSCP. Prior to visiting the Project Area, Dudek biologists reviewed aerial maps and selected areas that have the potential to support perennial or intermittent water for the on-site habitat assessment (Figure 3-4, Arroyo Toad Habitat Assessment). Based on the aerial review, the majority of the Project Area does not contain potentially suitable habitat for arroyo toad. However, the aerial review did identify potential suitable habitat in the two areas mapped as open water within Planning Areas 16/19, and at the downstream (southernmost) end of the Project Area, which contains a drainage that parallels the off-site portions of Proctor Valley Road located within the City of San Diego Cornerstone Lands. The open water and large drainage, and the upstream portions of three stream channels were selected for an on-site investigation to determine if there was potential for these areas to support suitable arroyo toad habitat. In total, 6 acres of the Project Area were surveyed as part of the arroyo toad habitat assessment (see Figure 3-4). Arroyo toads require at least 2 to 3 months of water for larvae to hatch from eggs, grow, and metamorphose into toadlets. Afterward they still require moist conditions for an extended period. In the Project Area, water is an intermittent resource and the creek does not flow or hold water for the requisite amount of time. Further, there are no known records of arroyo toad occurring within the Otay Reservoir System watershed where this drainage is located. The closest known populations are along the Sweetwater River, approximately 3 miles to the northwest, on the opposite side of San Miguel Mountain, and along Cottonwood Creek approximately 13 miles to the east (CDFW 2017). Drainages within the Project Area have “low to no” potential to support arroyo toad. The drainages do not appear to have the appropriate substrate required for this species, and there is no connectivity to existing arroyo toad populations in the region. Based on the habitat assessment of the only potential suitable habitat, the lack of water for requisite time periods, isolation, and lack of species observations, the arroyo toad has low potential to occur.





- 2014 Focused Habitat Assessment Areas
- Project Area
- Proposed Proctor Valley Road Alignment
- Development Footprint

0 1,450 2,900  
Feet

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SOURCE: NAIP 2016; Hunsaker 2017

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FIGURE 3-4

**Arroyo Toad Habitat Assessment**

NOTE: Survey areas may include additional acreage outside of the Project Area

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### **3.3.7 Hermes Copper Butterfly Habitat Assessment and Focused Survey**

Hermes copper butterfly is not a Covered Species under the MSCP, but is a candidate for federal listing. In 2015 and 2017, Dudek mapped Hermes copper butterfly habitat in accordance with the County of San Diego Guidelines for Hermes Copper (*Lycaena hermes*) (Attachment B of County of San Diego 2010b). The County guidelines state that habitat within 150 meters (492 feet) of a Hermes copper observation should be mapped as occupied habitat; therefore, a 500-foot buffer was created around the Village 14 Development Footprint associated with a project alternative and off-site improvement areas to create the 2015 Hermes copper butterfly study area. In 2017, biologists conducted additional habitat assessments and focused Hermes copper butterfly surveys within Planning Areas 16/19 and within those areas outside of the previously defined Development Footprint to ensure that the entire Project Area was surveyed. Within these study areas, redberry buckthorn (*Rhamnus crocea*) was mapped within 15 feet of Eastern Mojave buckwheat (*Eriogonum fasciculatum*) as potential habitat and was surveyed (Figure 3-5a, Hermes Copper Survey Area, and Figure 3-5b, Hermes Copper Survey Area – Planning Areas 16/19). Based on the 2015 habitat assessment, 17 acres of the Hermes copper butterfly study area was determined to contain potential habitat and was surveyed according to County of San Diego protocol survey guidelines. Four surveys from May to July 2015 were conducted per the County guidelines. Based on the 2017 habitat assessment, 20 acres of the Hermes copper butterfly study area was determined to contain potential habitat for the species and was surveyed according to County of San Diego protocol survey guidelines. Four survey passes were conducted from May to July 2017; no Hermes copper butterflies were observed during the 2015 or 2017 protocol surveys.

### **3.3.8 San Diego and Riverside Fairy Shrimp Surveys**

San Diego and Riverside fairy shrimp are both federally listed as endangered species, and both are Covered Species under the MSCP. However, a 2006 lawsuit against the City of San Diego challenged the City of San Diego's MSCP Subarea Plan under FESA, claiming that the City of San Diego's MSCP Subarea Plan did not provide adequate protections for vernal pools or listed fairy shrimp (*Southwest Center for Biological Diversity v. Bartel*, 470 F.Supp.2d 1118, 1130-1133 (S.D. Cal. 2006)). Because the court in that case invalidated the City of San Diego's MSCP Subarea Plan coverage for fairy shrimp, and because the MSCP County Subarea Plan includes fairy shrimp coverage provisions similar to those in the City of San Diego's MSCP Subarea Plan, the County has taken the position that the MSCP County Subarea Plan does not provide FESA take coverage for San Diego or Riverside fairy shrimp. This report, however, was prepared to provide technical support for the County's CEQA analysis and does not address "take" issues per se, as those are covered under a different statute, namely the FESA.



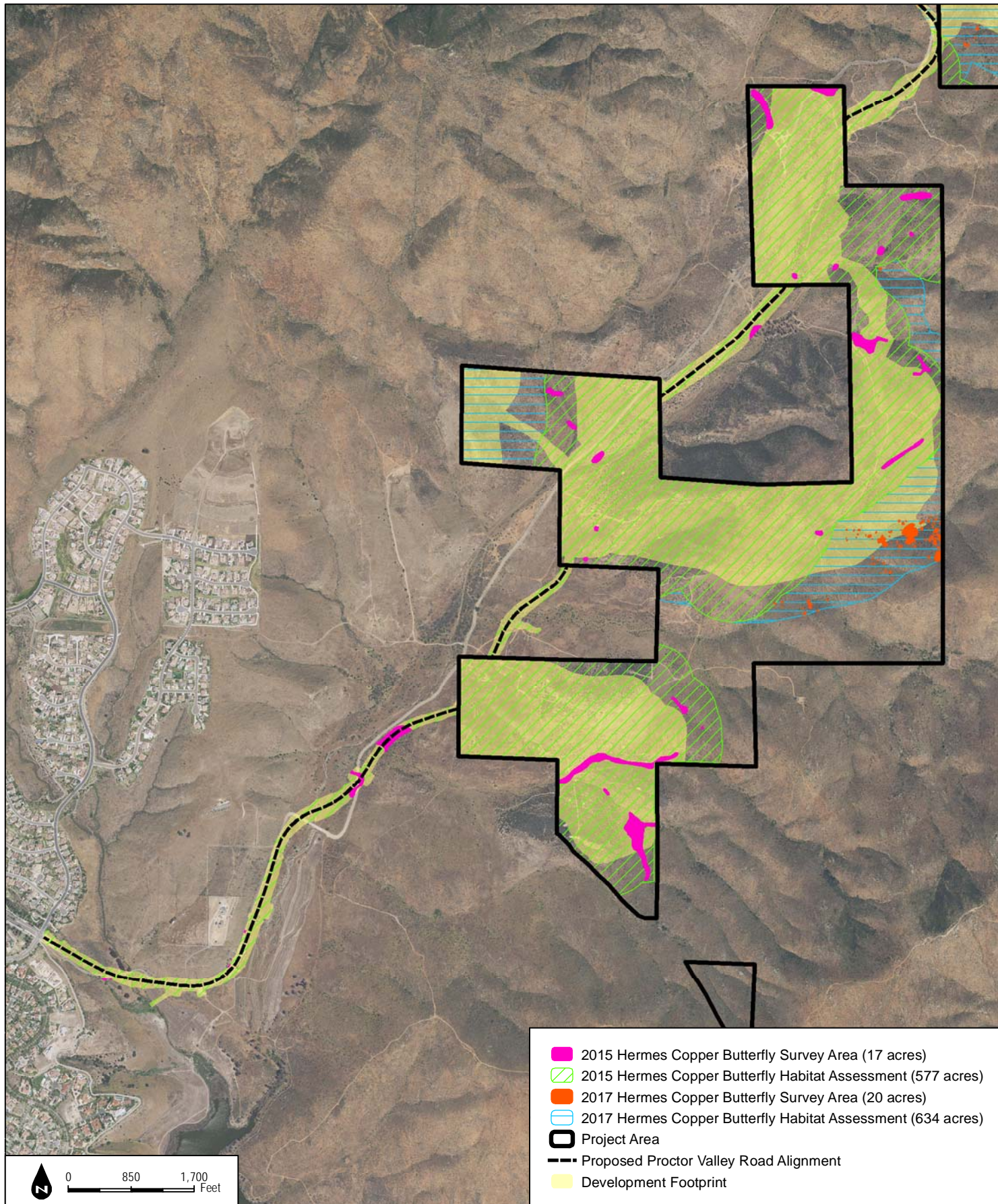
## **Biological Resources Technical Report for Otay Ranch Village 14 and Planning Areas 16/19**

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An assessment and mapping of potential features (i.e., vernal pools, ephemeral basins, and road ruts) was conducted throughout the study area in April and June 2014. The study area used for conducting vernal pool branchiopods habitat assessment and surveys included areas outside of the Project Area that could be impacted by the Proposed Project. During these efforts, Dudek biologists reviewed the specific on-site microhabitats (e.g., flat topography, soil types, and slopes) and the potential vernal pool locations provided in the Proctor Valley Vernal Pool Restoration Plan (AECOM and Hogan 2012). Following the onset of winter rainstorms in December 2014, Dudek biologists holding federal permits (i.e., 10(a)(1)(A) Recovery Permit) for fairy shrimp implemented a protocol-level wet-season survey in accordance with the USFWS survey protocol for listed fairy shrimp species (USFWS 1996). A total of 11 survey sampling visits were completed throughout the 2014/2015 wet season, which ceased when all features were observed dry again in June 2015. A total of 81 features were identified and sampled during the 2014/2015 wet-season survey, which were mapped with a GPS unit and the presence of fairy shrimp was recorded (Figures 3-6a through 3-6i, Fairy Shrimp Survey Area and Results). Of the identified features, only one—Feature B2 (located within lands owned by CDFW and outside of the Project Area)—would be considered a vernal pool. The remaining features are categorized as road ruts or ephemeral basins. The results of these surveys are discussed further in Section 4.6.1 of this report. The survey reports are provided in Appendix F, Fairy Shrimp Survey Reports.

Subsequent to 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 2015b). The soil sample collection was conducted by Dudek biologist Thomas Liddicoat (Permit No. TE139634) on October 22, 2015 (Table 3-1). Based on the feature location in the study area (i.e., in and outside of the Project Area) and the detection of fairy shrimp during the 2014/2015 wet-season survey, dry soil samples were collected from 40 of the 81 known features (Figures 3-6a through 3-6i). Samples were taken using a 6-inch-long hand trowel to excavate sample “chunks” of substrate from the upper 3 centimeters (1.2 inches) of soil. The hand trowel was cleaned between each feature prior to collection. Samples were collected at equal distances along two perpendicular transects (lengthwise and widthwise), incorporating the deepest region(s) of the feature and thoroughly sampling the feature surface area. If neither transect passed within the deepest region of the seasonal feature, another sample was taken to specifically include it. The amount of soil collected from each feature was proportional to the size of the feature and followed the direction provided in the USFWS guidelines. Features sampled were less than 24 square meters (260 square feet); therefore, no more than 11 samples (less than 100 milliliters (3.4 ounces) each), totaling 1 liter (34 ounces) composite samples per feature, were collected.





SOURCE: NAIP 2016; Hunsaker 2017

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FIGURE 3-5a  
Hermes Copper Survey Area

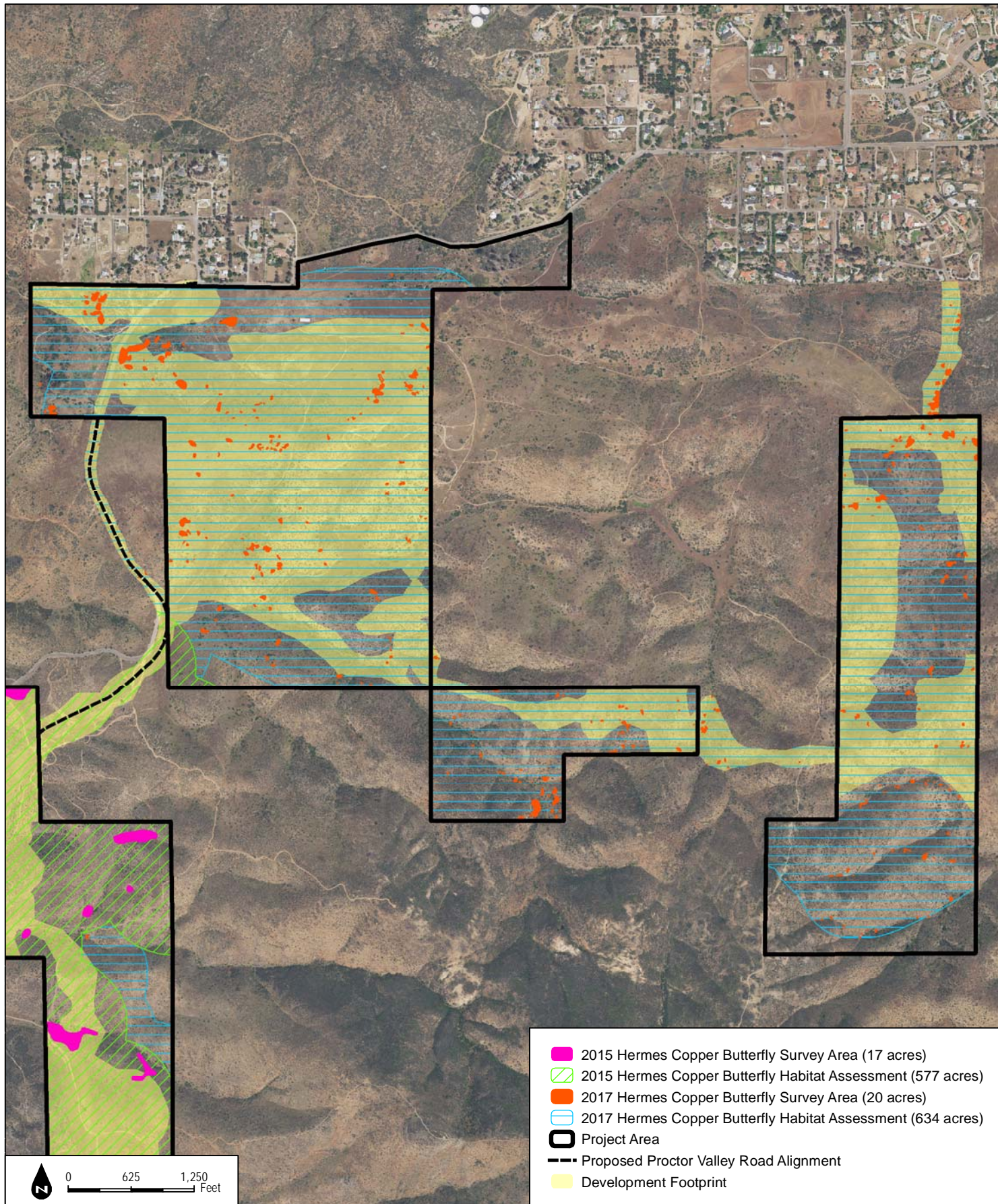
NOTE: Survey areas may include additional acreage outside of the Project Area

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SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 3-5b

## Hermes Copper Survey Area - Planning Areas 16/19

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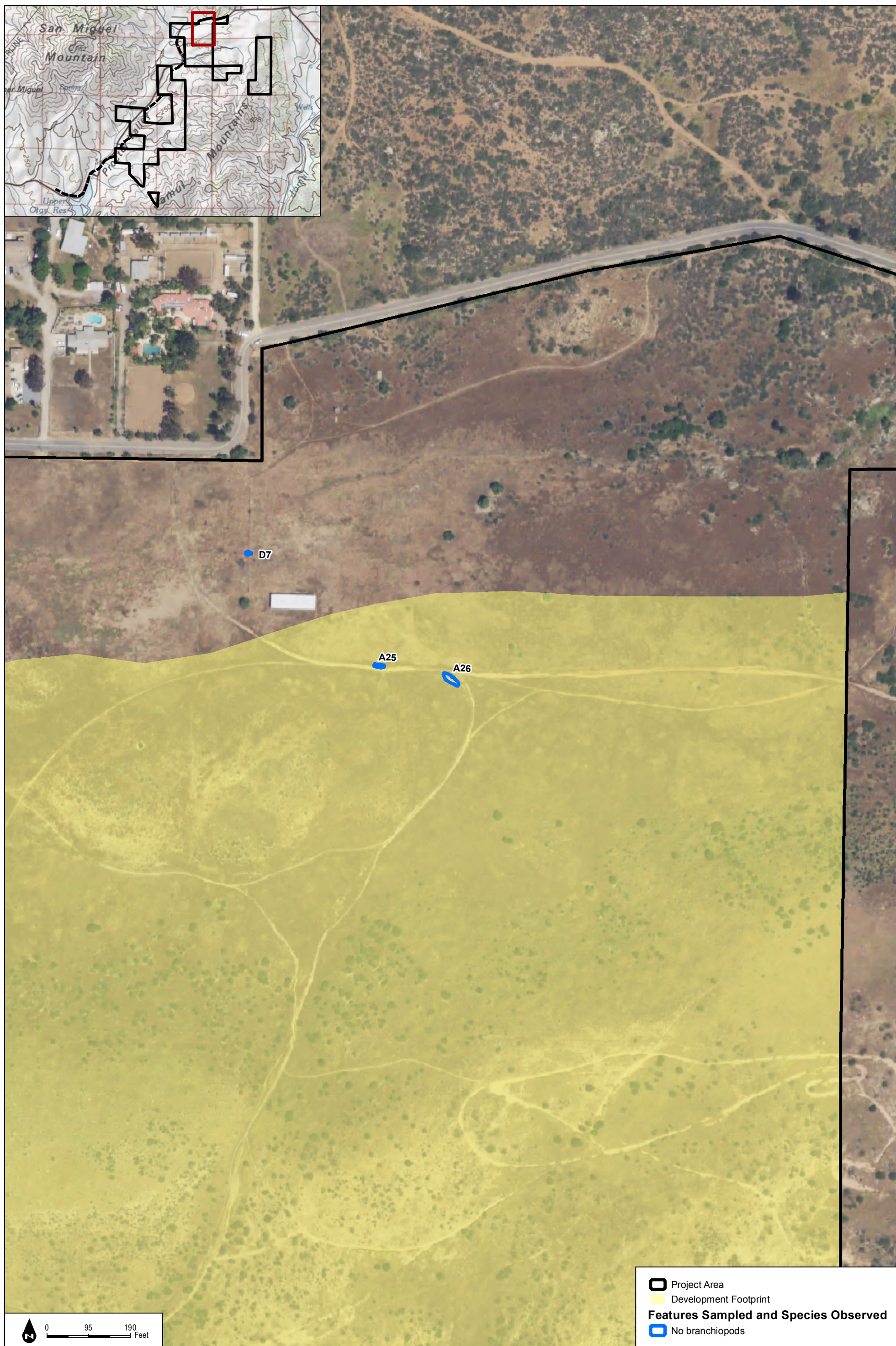
NOTE: Survey areas may include additional acreage outside of the Project Area

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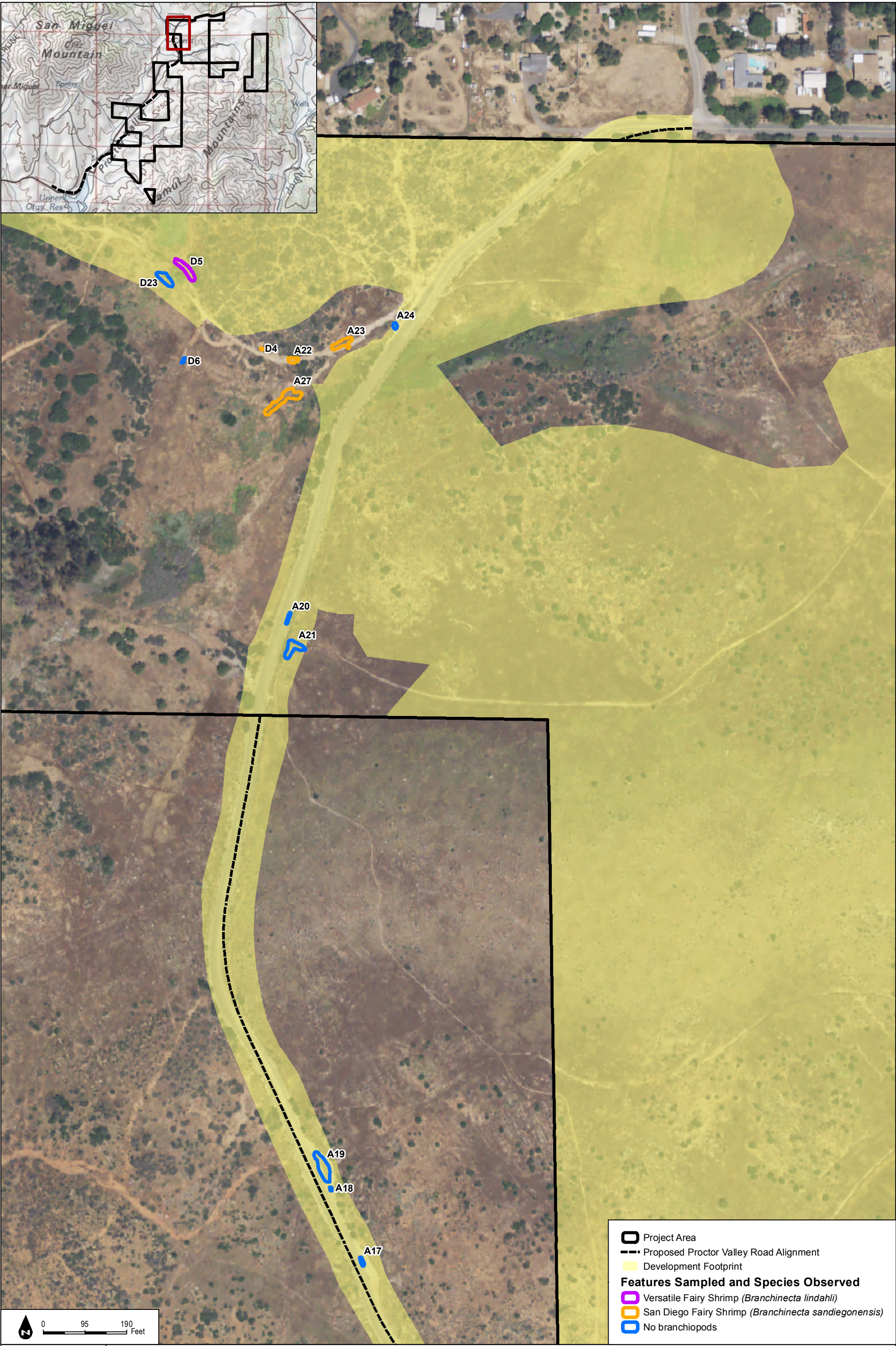






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SOURCE: NAIP 2016; Hunsaker 2017

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Figure 3-6b  
Fairy Shrimp Survey Area and Results

NOTE: Survey areas may include additional acreage outside of the Project Area



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SOURCE: NAIP 2016; Hunsaker 2017

Otay Ranch Village 14 and Planning Areas 16/19

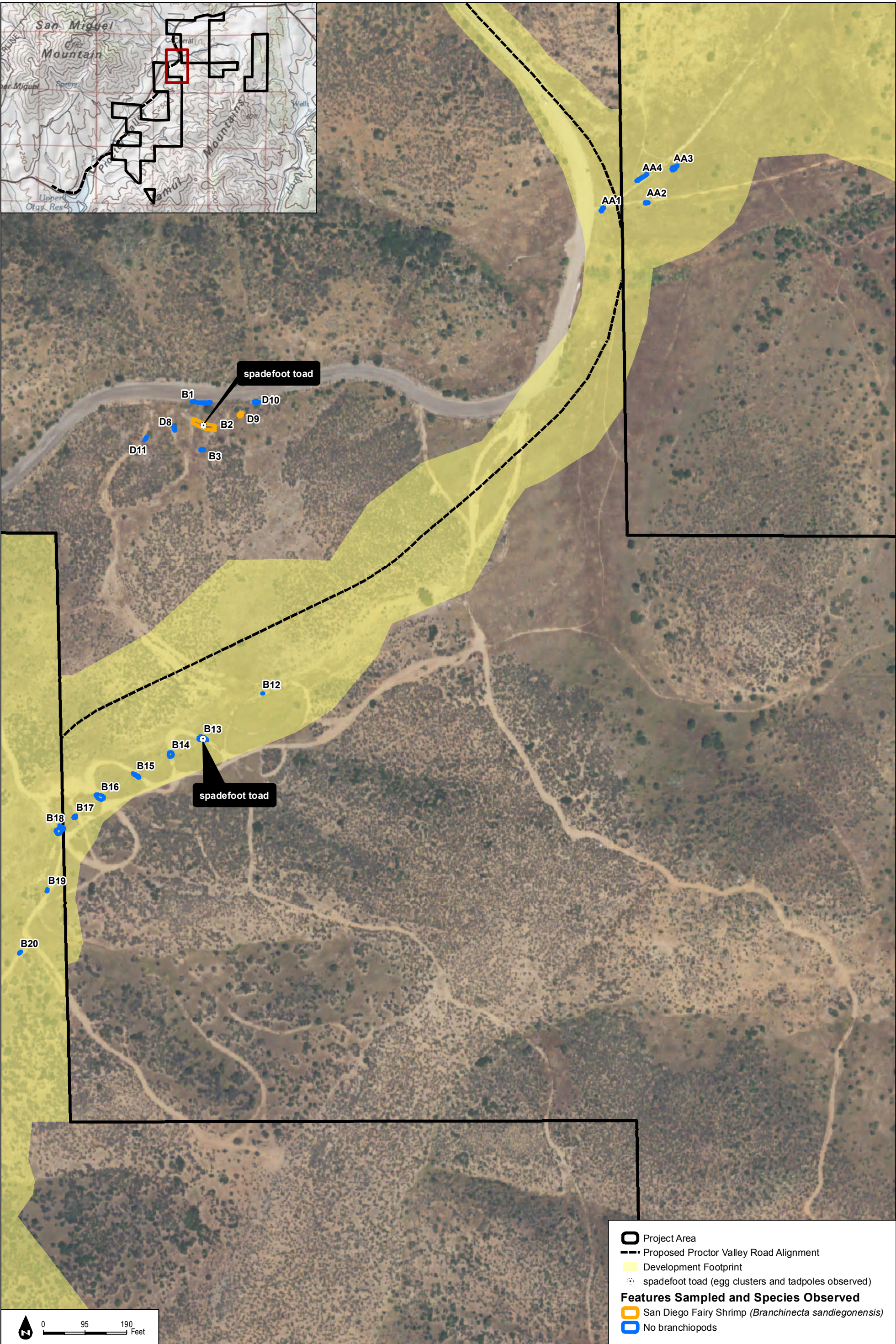
Figure 3-6c  
Fairy Shrimp Survey Area and Results

NOTE: Survey areas may include additional acreage outside of the Project Area



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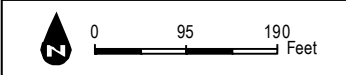
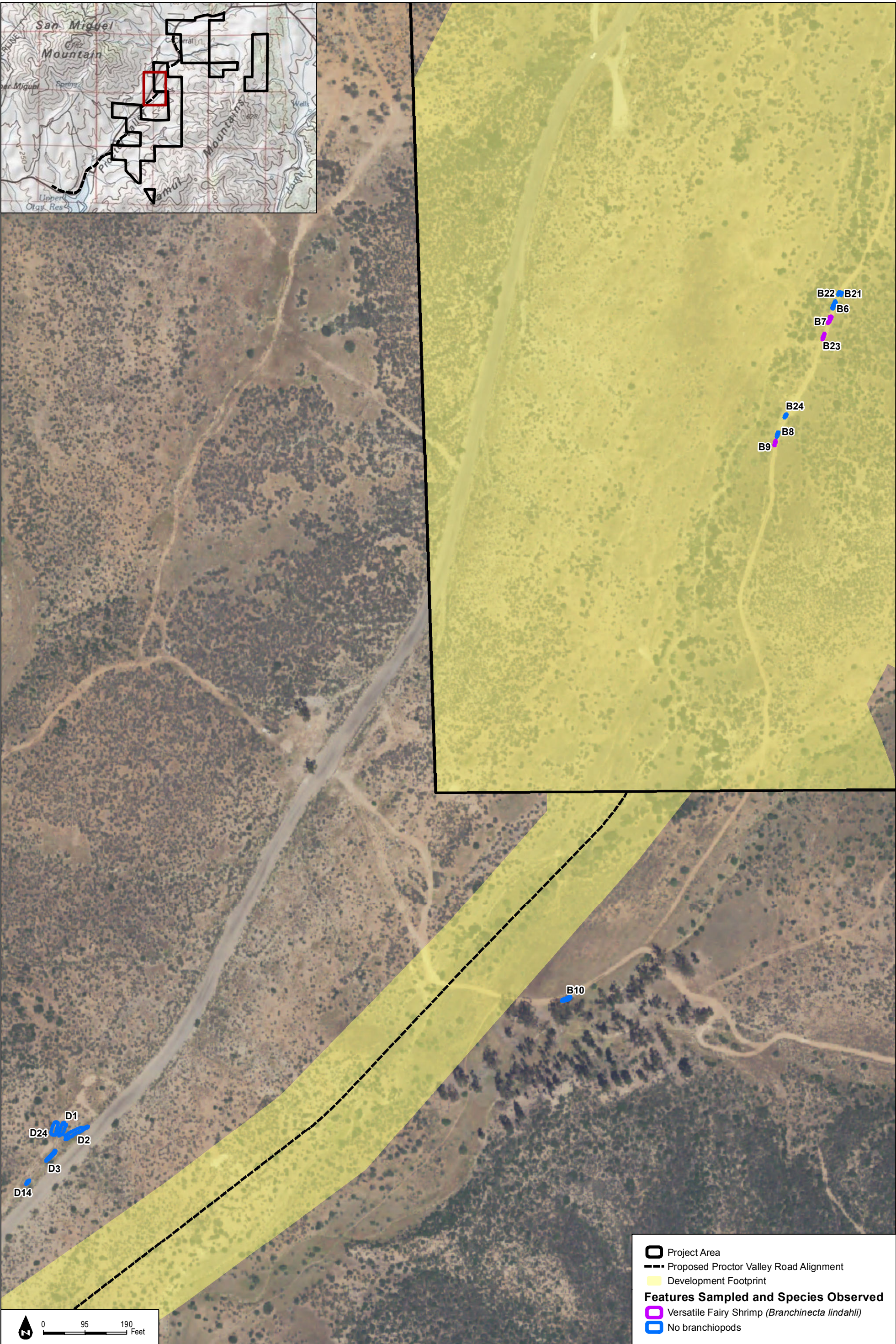






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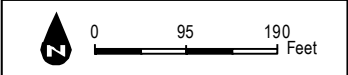
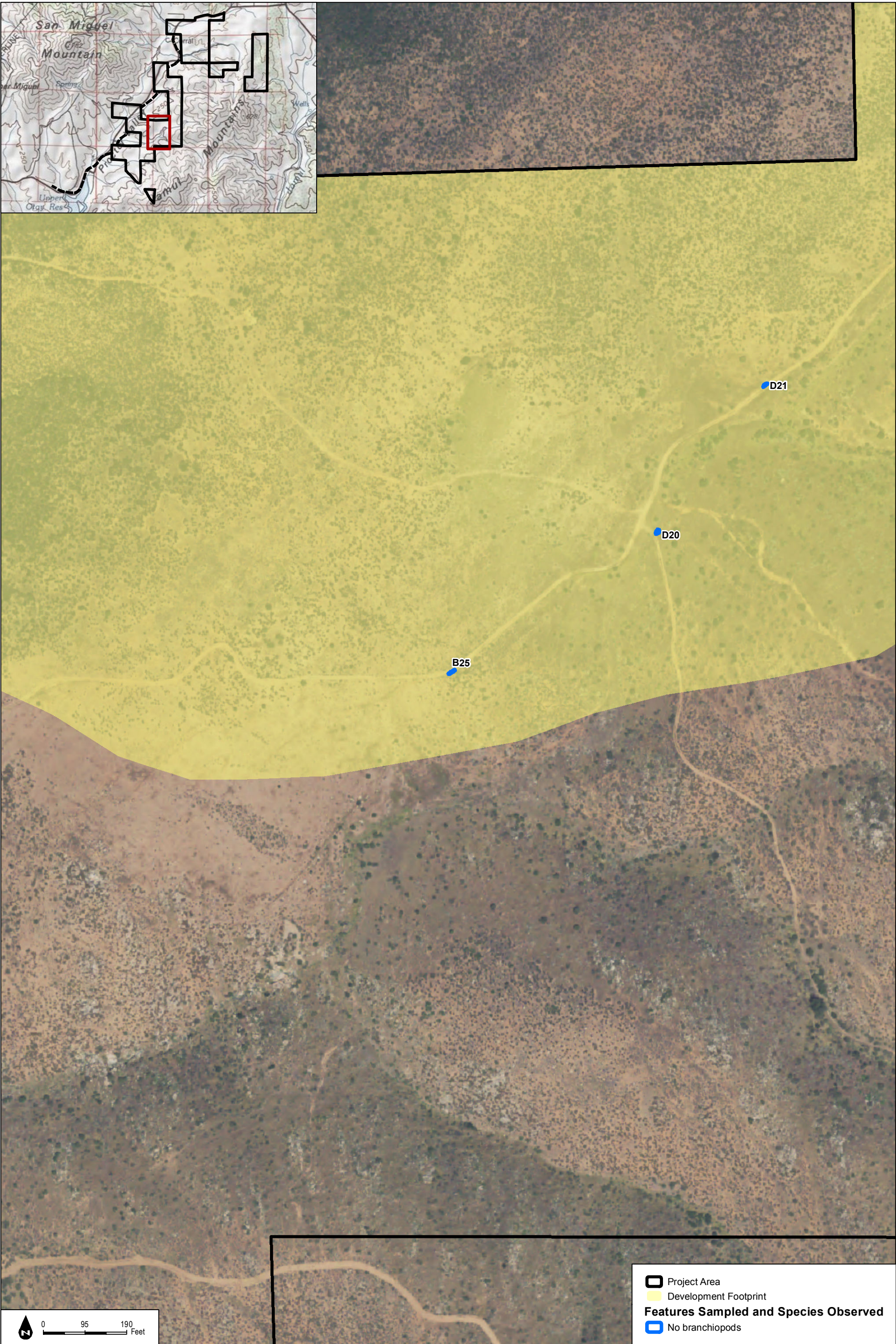






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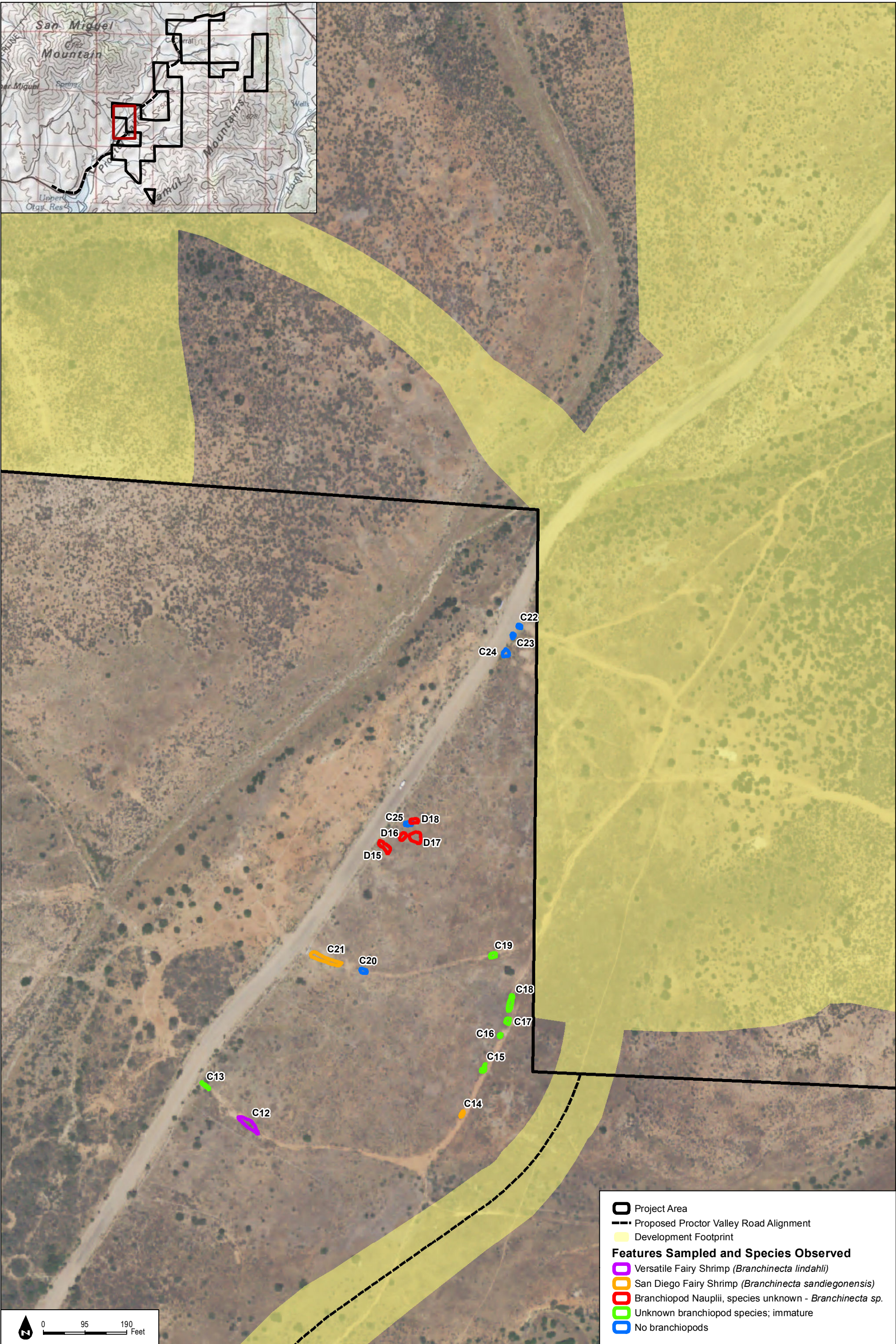






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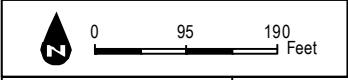
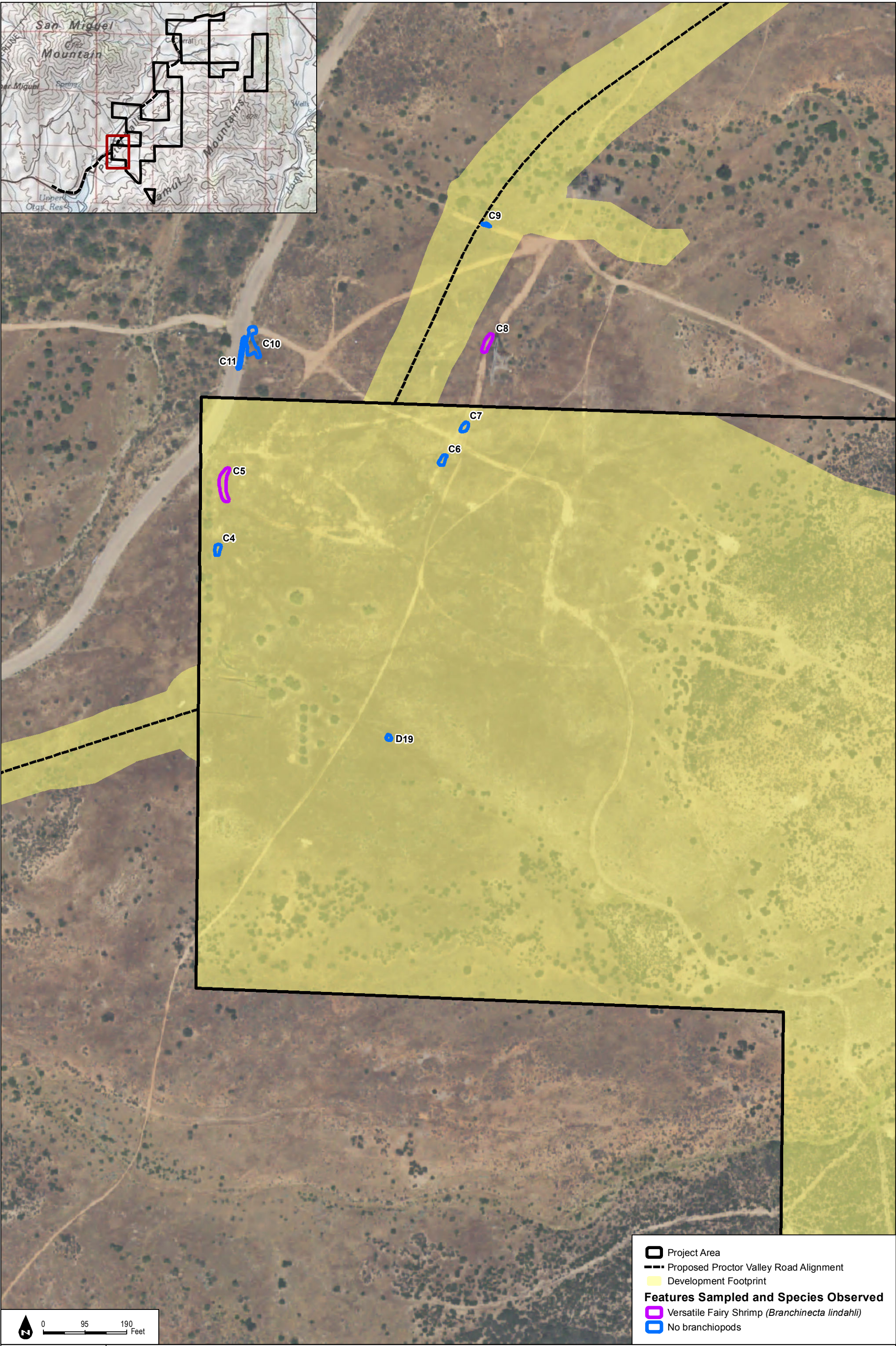






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