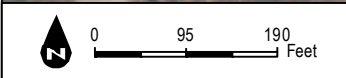
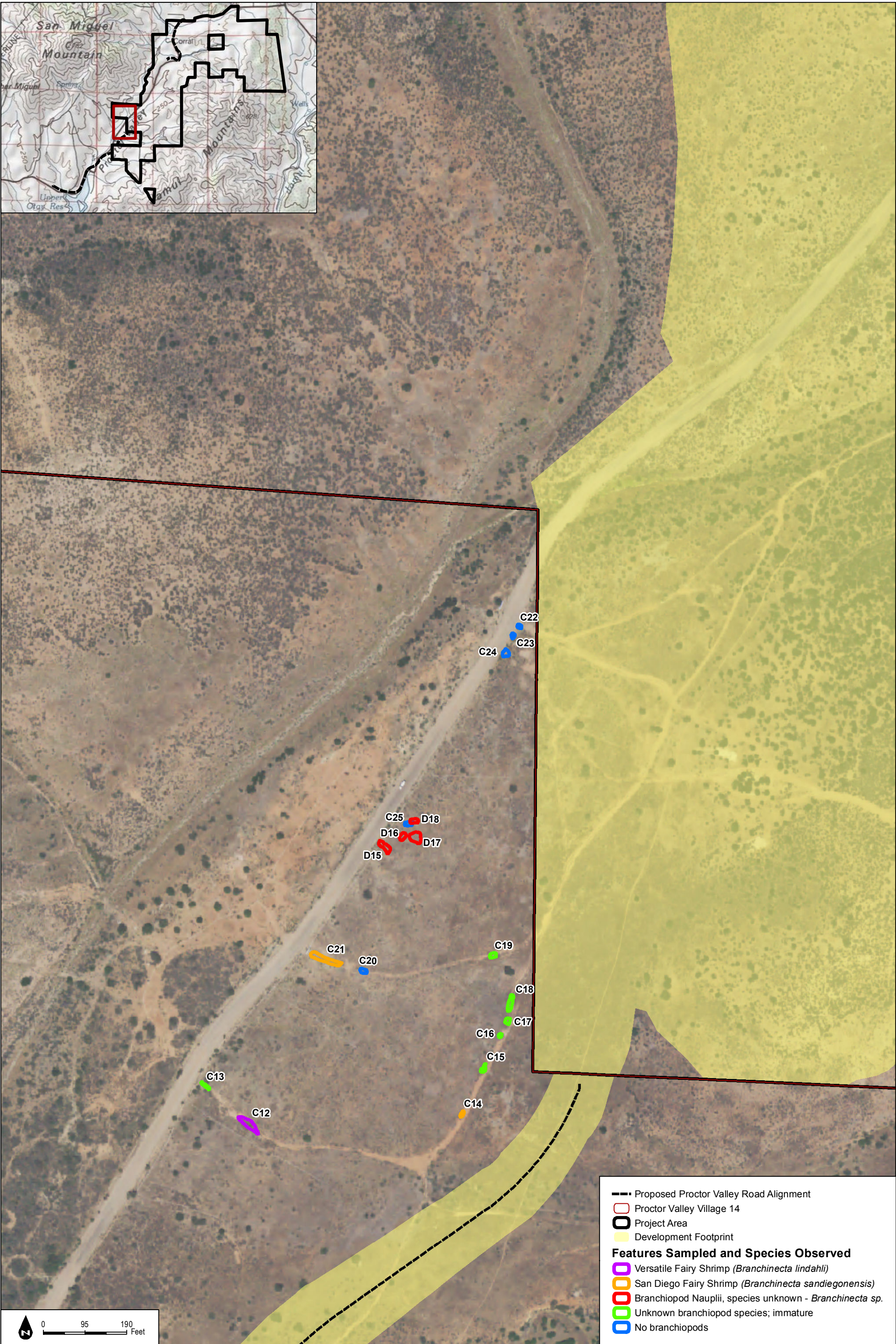
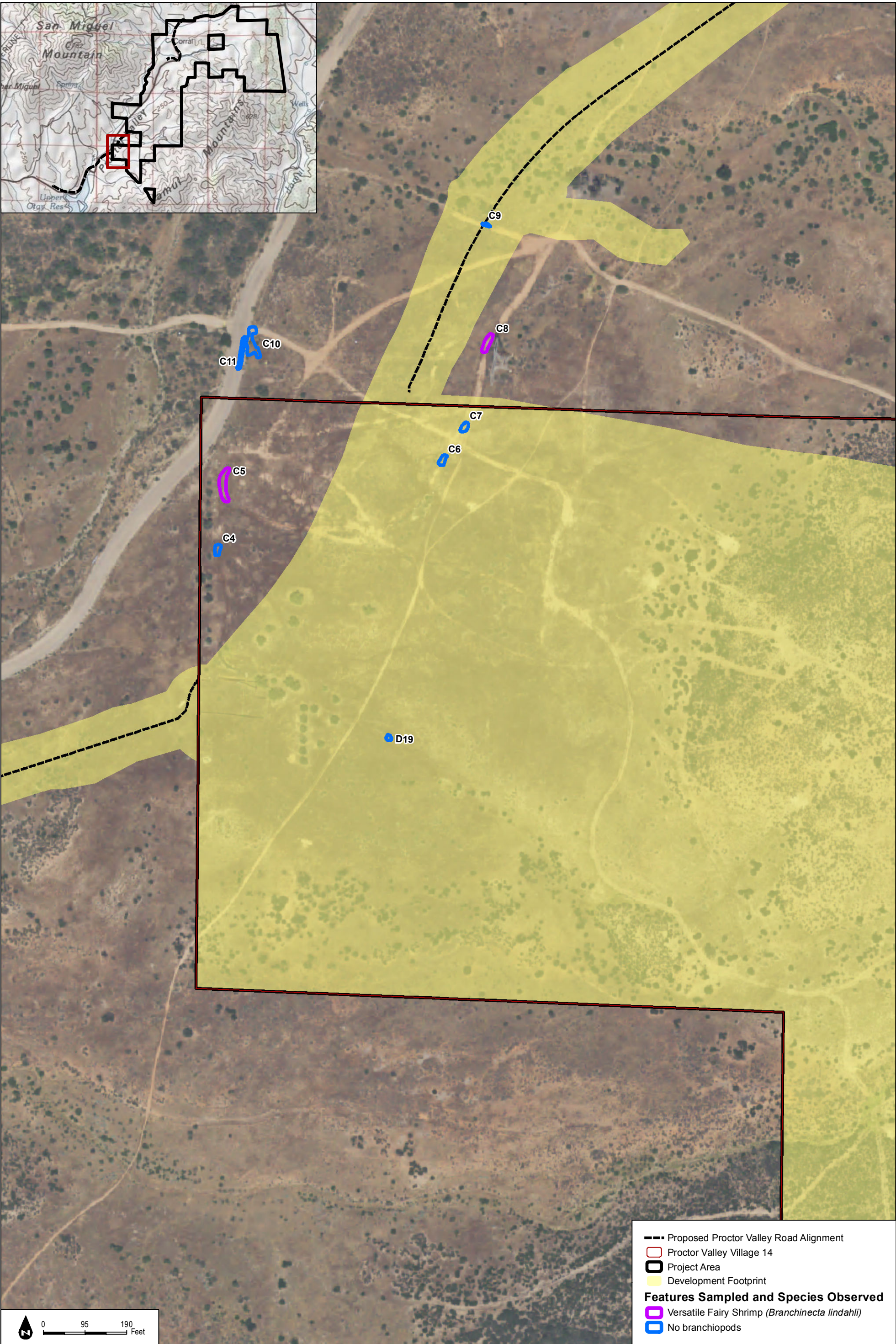


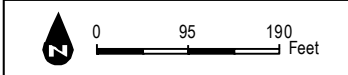
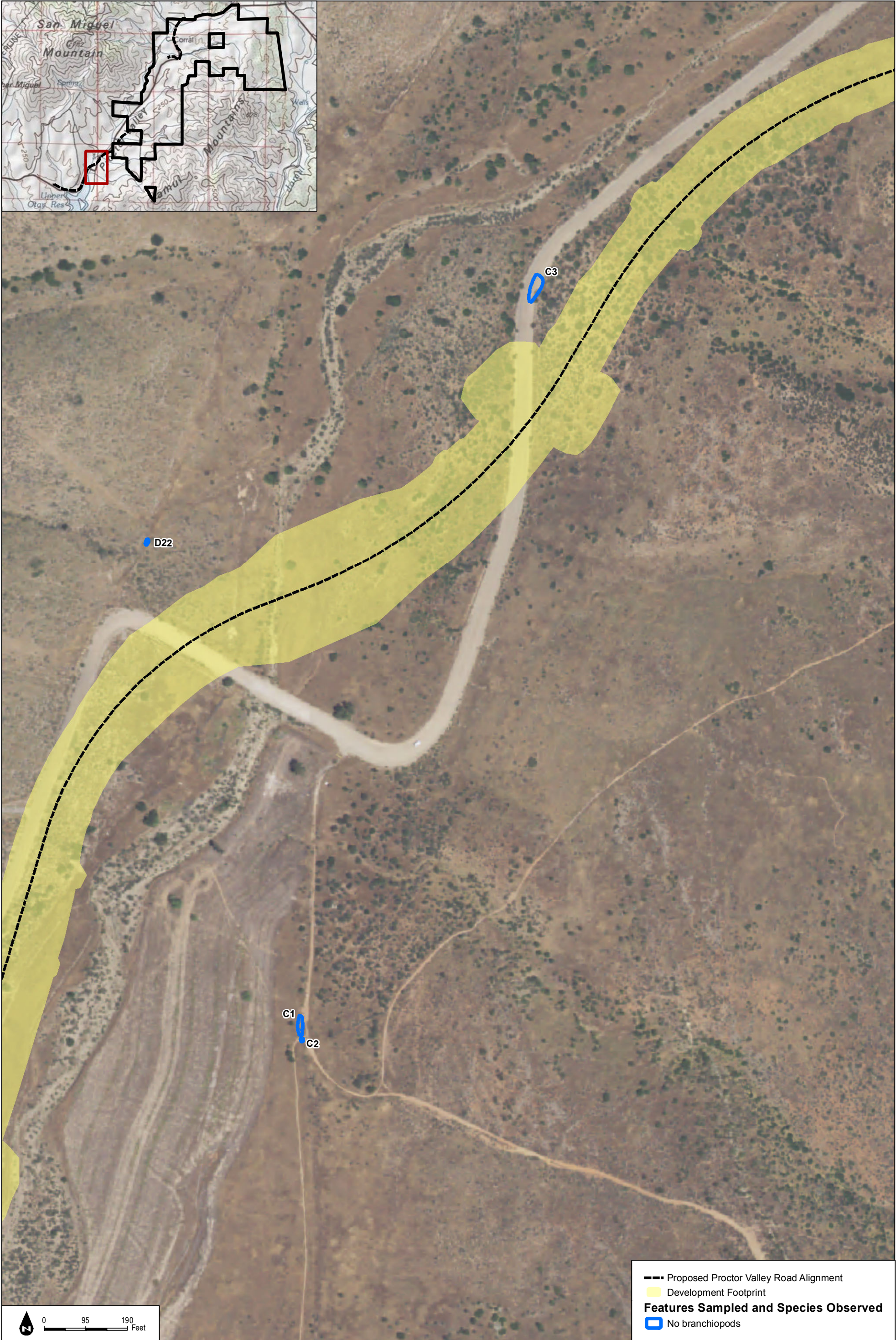
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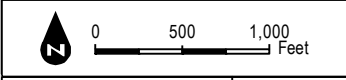
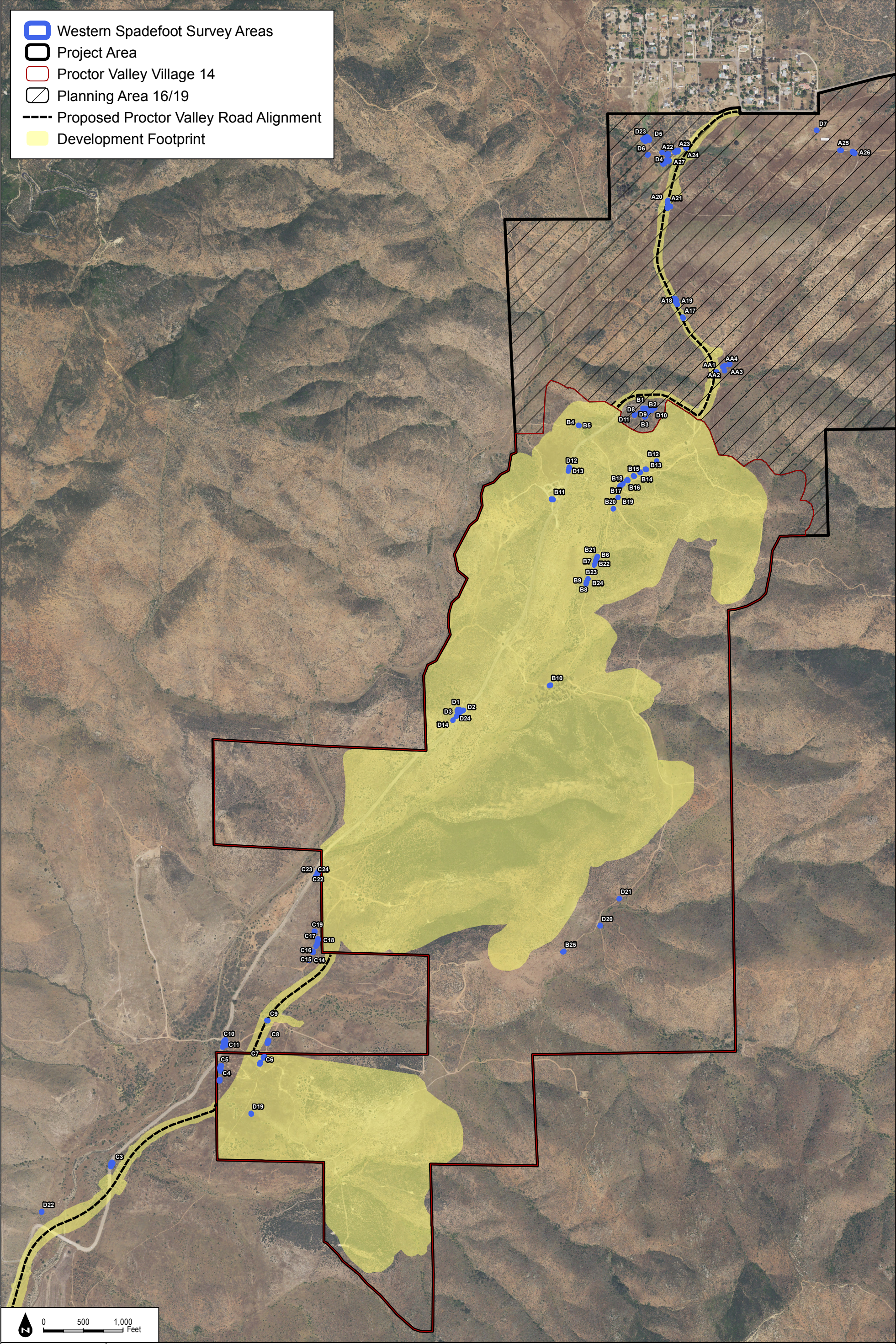
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4 ENVIRONMENTAL SETTING (EXISTING CONDITIONS)

4.1 Site Description

The Land Exchange Alternative would cover approximately 2,387.7 acres, including both state and privately owned lands, of which approximately 1,002.6 acres is within Otay Ranch Village 14, 1,344.8 acres is within Planning Areas 16/19, and 40.2 acres is within off-site improvement areas. Approximately 601 acres within Village 14 is proposed for development of a master-planned residential community (i.e., the Village 14 Development Footprint), including approximately 185 acres of managed internal open space. Approximately 403.9 acres of Otay Ranch RMP Preserve is located within Village 14. Off-site improvements would include approximately 16.4 acres of impacts for Proctor Valley Road North improvements within the Otay Ranch RMP Preserve in Planning Areas 16/19, and an additional 40.2 acres of off-site impacts associated with Proctor Valley Road South and Central. An additional 124 acres of Preserve in Village 14 and 1,053.1 acres of Otay Ranch RMP and MSCP Preserve in Planning Area 16 are owned by the state and are not part of Land Exchange Area.

The Land Exchange Alternative is located in Otay Ranch, southwest of the unincorporated community of Jamul and northeast of Bonita (Figure 1-1). The Otay Reservoir System is located south of the Land Exchange Area. Publicly owned open space property borders the Land Exchange Area to the northwest and southeast. The Land Exchange Alternative is located primarily southeast of Proctor Valley Road within the Jamul Mountains U.S. Geological Survey 7.5-minute quadrangle, Township 17 South, Ranges 1 East and 1 West, Sections 8, 9, 16, 17, 18, 19, 20, 25, and 30 (Figure 1-2). The approximate center of the Land Exchange Area is located at a latitude and longitude of 32°40'57" north and 116°54'24" west.

The entire Land Exchange Area is undeveloped. The on-site elevation ranges from 590 to 1,200 feet above mean sea level (amsl). The Land Exchange Area is diverse in topography and contains a flat valley along Proctor Valley Road and rolling hills within the remainder of the site. The Land Exchange Area is bordered by San Miguel Mountain and the Jamul Mountains immediately to the northwest and southeast, with the foothills of these mountains encroaching into the Land Exchange Area. The two eastern portions of Planning Area 16 are located within portions of the Jamul Mountains and contain the highest elevations.

Twenty soil types in 12 soil series occur within the Land Exchange Area: Diablo-Olivenhain complex, 9% to 30% slopes; Diablo clay, 15% to 30% slopes; Diablo clay, 9% to 15% slopes; Escondido very fine sandy loam, 9% to 15% slopes, eroded; Friant rocky fine sandy loam, 30% to 70% slopes; Friant rocky fine sandy loam, 9% to 30% slopes; Linne clay loam, 9% to 30% slopes; Olivenhain cobbly loam, 2% to 9% slopes; Olivenhain cobbly loam, 9% to 30% slopes;

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Placentia sandy loam, 2% to 9% slopes; Placentia sandy loam, 5% to 9% slopes; eroded; Placentia sandy loam, thick surface, 2% to 9% slopes; Riverwash; San Miguel–Exchequer rocky silt loams, 9% to 70% slopes; Visalia gravelly sandy loam, 2% to 5% slopes; Visalia sandy loam, 2% to 5% slopes; Visalia sandy loam, 5% to 9% slopes; Vista rocky coarse sandy loam, 5% to 15% slopes; Water; Wyman loam, 2% to 5% slopes (USDA 2014). Of those soil types, the Diablo, Olivenhain, and San Miguel are known to support special-status plant species.

4.2 Habitat Types/Vegetation Communities

The Land Exchange Alternative, which totals 2,387.7 acres, is dominated by chaparral and sage scrub, with some representation of grassland. Various wetland plant communities also occur in the Land Exchange Area. The vegetation communities and land cover types within the Land Exchange Area are described below. Acreages are presented in Table 4-1, Vegetation Communities and Land Cover Types in the Land Exchange Area, and Table 4-2, Vegetation Communities and Land Cover Types by Off-Site Improvement Area. Spatial distributions of vegetation communities are presented in Figure 4-1 and Figures 4-1a through 4-1ff, Biological Resources.

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

- 1 = critically imperiled
- 2 = imperiled
- 3 = vulnerable to extirpation or extinction
- 4 = apparently secure
- 5 = demonstrably widespread, abundant, and secure

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

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and Associations (CDFG 2010) is considered the authority for ranking the conservation status of vegetation communities in California.

Table 4-1
Vegetation Communities and Land Cover Types in the Land Exchange Area

| Habitat Types/Vegetation Communities | Code ^a | Land Exchange Area | | | Total |
|--------------------------------------------------------------------|-------------------|-------------------------|-----------------------------------|-----------------------------------------|---------|
| | | Village 14 ^b | Planning Areas 16/19 ^c | Off-Site Improvement Areas ^d | |
| Sensitive Upland Communities | | | | | |
| Granitic chamise chaparral | 37210 | 515.3 | 70.2 | <0.1 | 585.5 |
| Granitic chamise chaparral (disturbed) | 37210 | 0.8 | — | — | 0.8 |
| Granitic southern mixed chaparral | 37121 | — | 107.7 | 3.2 | 110.9 |
| Diegan coastal sage scrub | 32500 | 338.6 | 946.7 | 11.6 | 1,296.9 |
| Diegan coastal sage scrub (disturbed) | 32500 | 77.2 | 21.8 | 9.7 | 108.7 |
| Diegan coastal sage scrub – <i>Baccharis</i> dominated | 32530 | — | — | 0.7 | 0.7 |
| Diegan coastal sage scrub – <i>Baccharis</i> dominated (disturbed) | 32530 | — | — | 0.6 | 0.6 |
| Coast live oak woodland | 71161 | — | 1.1 | — | 1.1 |
| Non-native grassland | 42200 | 40.5 | 171.8 | 10.1 | 222.4 |
| Subtotal of Sensitive Upland Communities | | 972.4 | 1,319.3 | 35.9 | 2,327.6 |
| Jurisdictional Aquatic Resources | | | | | |
| Alkali Seep | 45320 | — | 0.5 | — | 0.5 |
| Cismontane alkali marsh (including disturbed) | 52310 | 1.2 | 7.2 | — | 8.4 |
| Mulefat scrub | 63310 | 0.2 | 0.5 | 0.3 | 1.0 |
| Coastal and valley freshwater marsh | 52410 | — | — | 0.4 | 0.4 |
| Open water | 64100 | — | 2.0 | — | 2.0 |
| Southern coast live oak riparian forest | 61310 | 0.7 | — | — | 0.7 |
| Southern willow scrub | 63320 | — | 0.3 | — | 0.3 |
| Unvegetated channel ^e | 64200 | — | — | 0.1 | 0.1 |
| Subtotal of Jurisdictional Aquatic Resources | | 2.1 | 10.5 | 0.8 | 13.4 |
| Non-Sensitive Communities and Land Covers | | | | | |
| Eucalyptus woodland | 79100 | 3.0 | 2.7 | 0.1 | 5.8 |
| Urban/developed | 12000 | 4.6 | 3.7 | 1.6 | 9.9 |
| Disturbed habitat | 11300 | 20.5 | 8.7 | 1.8 | 31.0 |
| Subtotal of Non-Sensitive Communities and Land Covers | | 28.1 | 15.1 | 3.5 | 46.7 |
| Total ^f | | 1,002.6 | 1,344.8 | 40.2 | 2,387.7 |

^a Oberbauer et al. 2008.

^b Only includes Village 14 Preserve owned by the Land Exchange Alternative applicant (Jackson Pendo), post-exchange included in the Specific Plan. An additional 124 acres of Preserve in Village 14 is owned by the state and is not a part of Land Exchange Area.

^c Acreages are post land exchange and boundary line adjustment.

^d Off-site improvement areas are shown in Table 4-2. There are an additional 16.3 acres of off-site improvements associated with Proctor Valley Road North that are included in Planning Areas 16/19 but are considered off-site.

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- ^e Unvegetated stream channel is also an overlay within various vegetation communities and is therefore not fully represented in this total.
^f May not total due to rounding.

Table 4-2
Vegetation Communities and Land Cover Types by Off-Site Improvement Area (acres)

| Habitat Types/Vegetation Communities | Proctor Valley Road South | Proctor Valley Road Central | Proctor Valley Road North | Total Off-Site Area ^a |
|--------------------------------------------------------------|---------------------------|-----------------------------|---------------------------|----------------------------------|
| <i>Sensitive Upland Communities</i> | | | | |
| Granitic Chamise Chaparral | — | — | 3.6 | 3.6 |
| Southern Mixed Chaparral | 3.2 | — | — | 3.2 |
| Diegan coastal sage scrub | 11.6 | — | 4.0 | 15.6 |
| Diegan coastal sage scrub (disturbed) | 4.1 | 5.6 | 1.0 | 10.7 |
| Diegan coastal sage scrub – Baccharis dominated | 0.7 | — | — | 0.7 |
| Diegan coastal sage scrub – Baccharis dominated (disturbed) | — | 0.6 | — | 0.6 |
| Non-native Grassland | 9.4 | 0.7 | 3.8 | 13.9 |
| <i>Subtotal of Sensitive Upland Communities</i> | <i>29.0</i> | <i>6.9</i> | <i>12.4</i> | <i>48.3</i> |
| <i>Jurisdictional Aquatic Resources</i> | | | | |
| Cismontane Alkali Marsh | — | — | 0.4 | 0.4 |
| Mulefat Scrub | 0.3 | — | 0.1 | 0.4 |
| Coastal and Valley Freshwater Marsh | 0.4 | — | — | 0.4 |
| Southern willow scrub | — | — | 0.1 | 0.1 |
| Unvegetated Channel ^a | 0.1 | — | — | 0.1 |
| <i>Subtotal of Jurisdictional Aquatic Resources</i> | <i>0.8</i> | <i>—</i> | <i>0.6</i> | <i>1.4</i> |
| <i>Non-Sensitive Communities and Land Covers</i> | | | | |
| Eucalyptus Woodland | 0.1 | — | — | 0.1 |
| Urban/Developed | 1.4 | — | 3.2 | 4.6 |
| Disturbed Habitat | 1.5 | 0.3 | 0.4 | 2.2 |
| <i>Subtotal of Non-Sensitive Communities and Land Covers</i> | <i>3.0</i> | <i>0.3</i> | <i>3.6</i> | <i>6.9</i> |
| Total^{a,b} | 32.8 | 7.2 | 16.6 | 56.6 |

- ^a Unvegetated stream channel is an overlay within various vegetation communities and is therefore not fully represented in this total.
^b May not total due to rounding.

Granitic Chamise Chaparral (37210)

Granitic chamise chaparral contains shrubs, overwhelmingly dominated by chamise, from 3 to 10 feet tall, with little cover provided by other species. Stump sprouting allows this vegetation to adapt to repeated fires. Chamise chaparral typically occurs on dry slopes and ridges (Holland 1986). The chamise chaparral alliance is ranked by the CDFG (2010) as a G5S5 alliance. This

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ranking indicates that globally and within California the alliance is widespread, abundant, and is considered secure (CDFG 2010; NatureServe 2014).

Within the Land Exchange Area, granitic chamise chaparral is typically characterized by a relatively monotypic stand of chamise with some diversity of other shrubs and herbaceous cover. Areas where native species were co-dominant with non-native grasses were mapped as disturbed granitic chamise chaparral. Granitic chamise chaparral totals 586.3 acres within the Land Exchange Area (this includes 0.8 acres of disturbed form), and occurs throughout much of the Land Exchange Area. It is the most dominant vegetation community in the Village 14 Development Footprint. This vegetation community also occurs within the off-site improvement areas along Proctor Valley Road Central and Proctor Valley Road North (Figures 4-1 through 4-1ff).

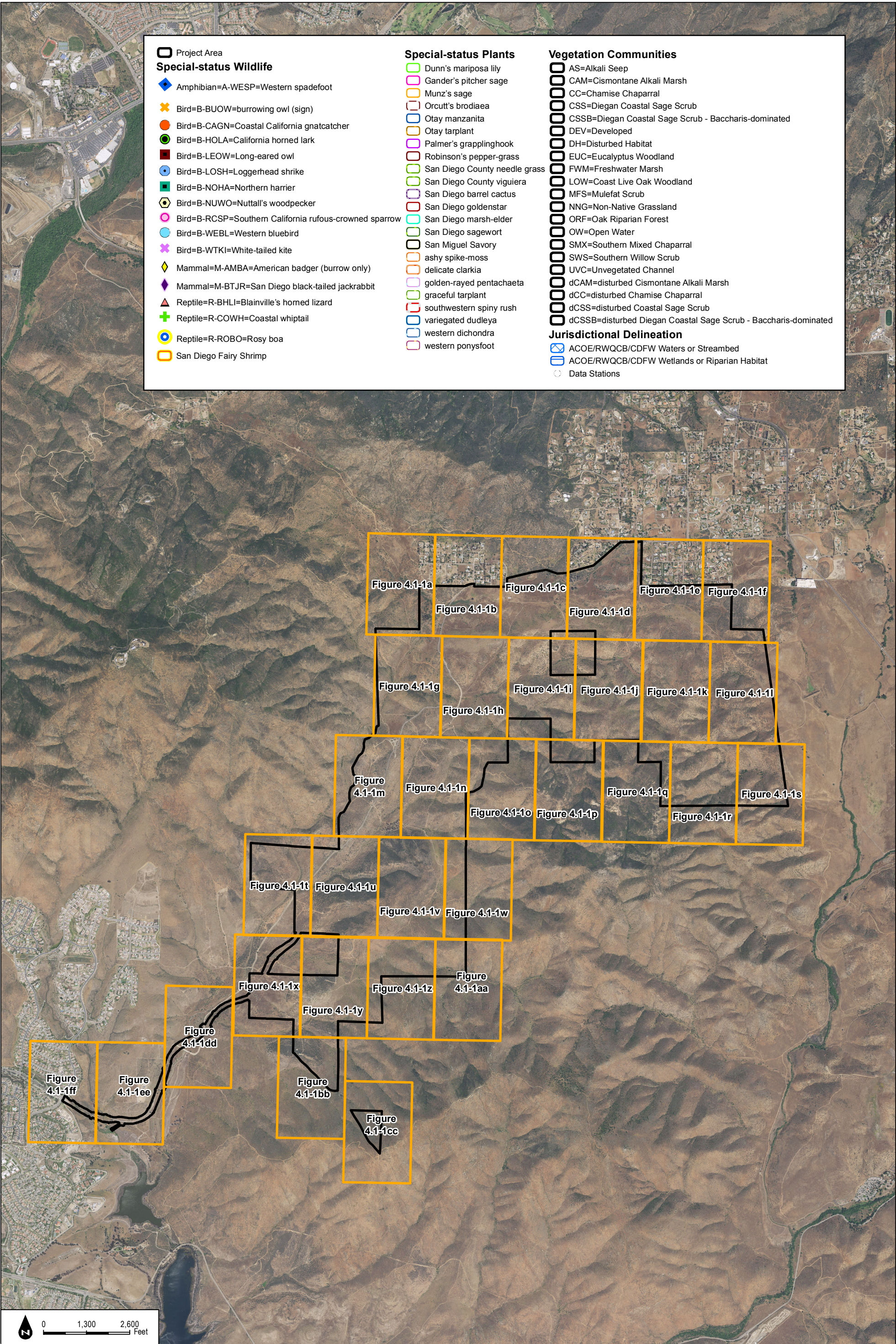
Granitic Southern Mixed Chaparral (37121)

Granitic southern mixed chaparral (37121) is characterized by broad-leaved sclerophyll shrubs ranging from 5 to 10 feet in height (Oberbauer et al. 2008). Granitic southern mixed chaparral is characterized by chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos* spp.), white fairy-lantern (*Calochortus albus*), ceanothus (*Ceanothus* spp.), and other species with patches of bare soil. This habitat often occurs on dry, rocky, often steep slopes with little soil and moderate temperatures. Areas mapped as southern mixed chaparral are dominated by chamise. The *Adenostoma fasciculatum* (chamise) alliance has a rank of G5S5 by CDFW (CDFG 2010; NatureServe 2014), meaning it is globally secure and secure in the state.

Within the Land Exchange Area, areas mapped as southern mixed chaparral are dominated by chamise, laurel sumac (*Malosma laurina*), woolyleaf ceanothus (*Ceanothus tomentosus*), scrub oak (*Quercus berberidifolia*), and toyon (*Heteromeles arbutifolia*). There is a total of 110.9 acres of granitic southern mixed chaparral within Planning Area 16 and along Proctor Valley Road (Figures 4-1 through 4-1ff).

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Project Area

Special-status Wildlife

- Amphibian=A-WESP=Western spadefoot
- Bird=B-BUOW=burrowing owl (sign)
- Bird=B-CAGN=Coastal California gnatcatcher
- Bird=B-HOLA=California horned lark
- Bird=B-LEOW=Long-eared owl
- Bird=B-LOSH=Loggerhead shrike
- Bird=B-NOHA=Northern harrier
- Bird=B-NUWO=Nuttall's woodpecker
- Bird=B-RCSP=Southern California rufous-crowned sparrow
- Bird=B-WEBL=Western bluebird
- Bird=B-WTKI=White-tailed kite
- Mammal=M-AMBA=American badger (burrow only)
- Mammal=M-BTJR=San Diego black-tailed jackrabbit
- Reptile=R-BHLI=Blainville's horned lizard
- Reptile=R-COWH=Coastal whiptail
- Reptile=R-ROBO=Rosy boa
- San Diego Fairy Shrimp

Special-status Plants

- Dunn's mariposa lily
- Gander's pitcher sage
- Munz's sage
- Orcutt's brodiaea
- Otay manzanita
- Otay tarplant
- Palmer's grapplinghook
- Robinson's pepper-grass
- San Diego County needle grass
- San Diego County viguiera
- San Diego barrel cactus
- San Diego goldenstar
- San Diego marsh-elder
- San Diego sagewort
- San Miguel Savory
- ashy spike-moss
- delicate clarkia
- golden-rayed pentachaeta
- graceful tarplant
- southwestern spiny rush
- variegated dudleya
- western dichondra
- western ponysoot

Vegetation Communities

- AS=Alkali Seep
- CAM=Cismontane Alkali Marsh
- CC=Chamise Chaparral
- CSS=Diegan Coastal Sage Scrub
- CSSB=Diegan Coastal Sage Scrub - Baccharis-dominated
- DEV=Developed
- DH=Disturbed Habitat
- EUC=Eucalyptus Woodland
- FWM=Freshwater Marsh
- LOW=Coast Live Oak Woodland
- MFS=Mulefat Scrub
- NNG=Non-Native Grassland
- ORF=Oak Riparian Forest
- OW=Open Water
- SMX=Southern Mixed Chaparral
- SWS=Southern Willow Scrub
- UVC=Unvegetated Channel
- dCAM=disturbed Cismontane Alkali Marsh
- dCC=disturbed Chamise Chaparral
- dCSS=disturbed Coastal Sage Scrub
- dCSSB=disturbed Diegan Coastal Sage Scrub - Baccharis-dominated

Jurisdictional Delineation

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

SOURCE: Hunsaker 2017

DUDEK

Otay Ranch Village 14 and Planning Area 16/19 - Land Exchange Alternative

FIGURE 4-1
Biological Resources - Legend

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Figure 4.1a
Biological Resources

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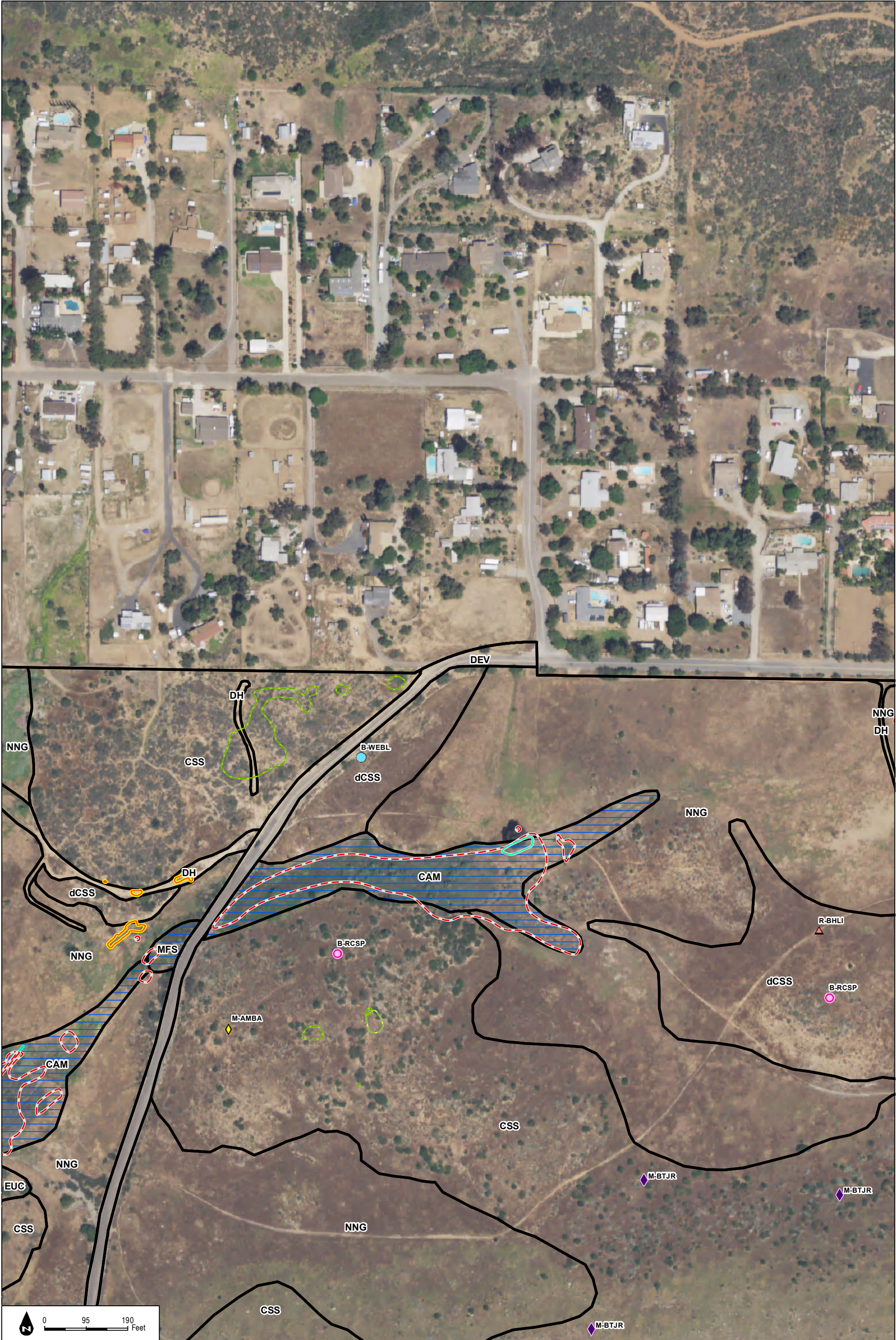


Figure 4-1b
Biological Resources

SOURCE: NAIP 2016; Hunsaker 2017

Otay Ranch Village 14 and Planning Area 16/19 - Land Exchange Alternative

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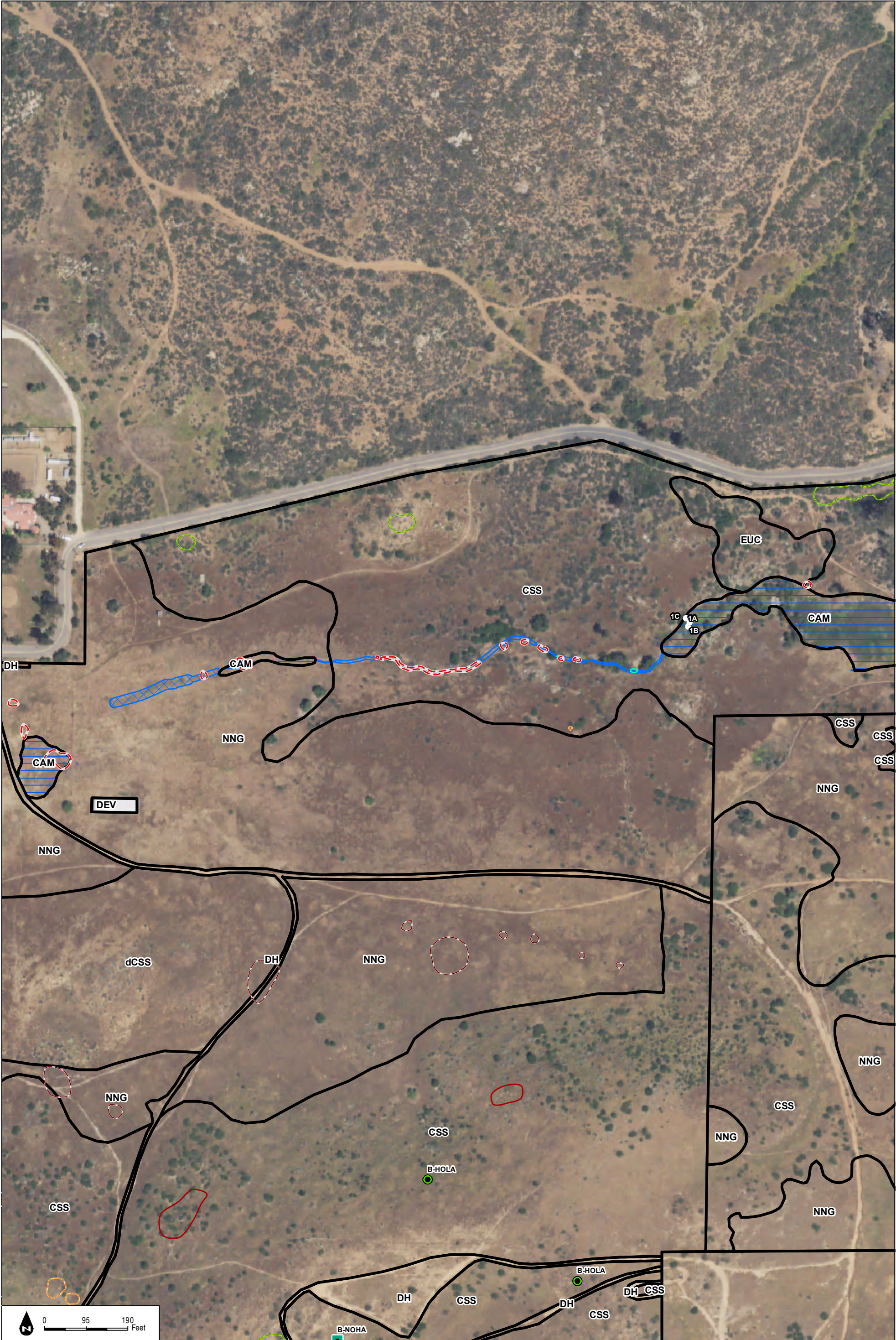


Figure 4-1c
Biological Resources

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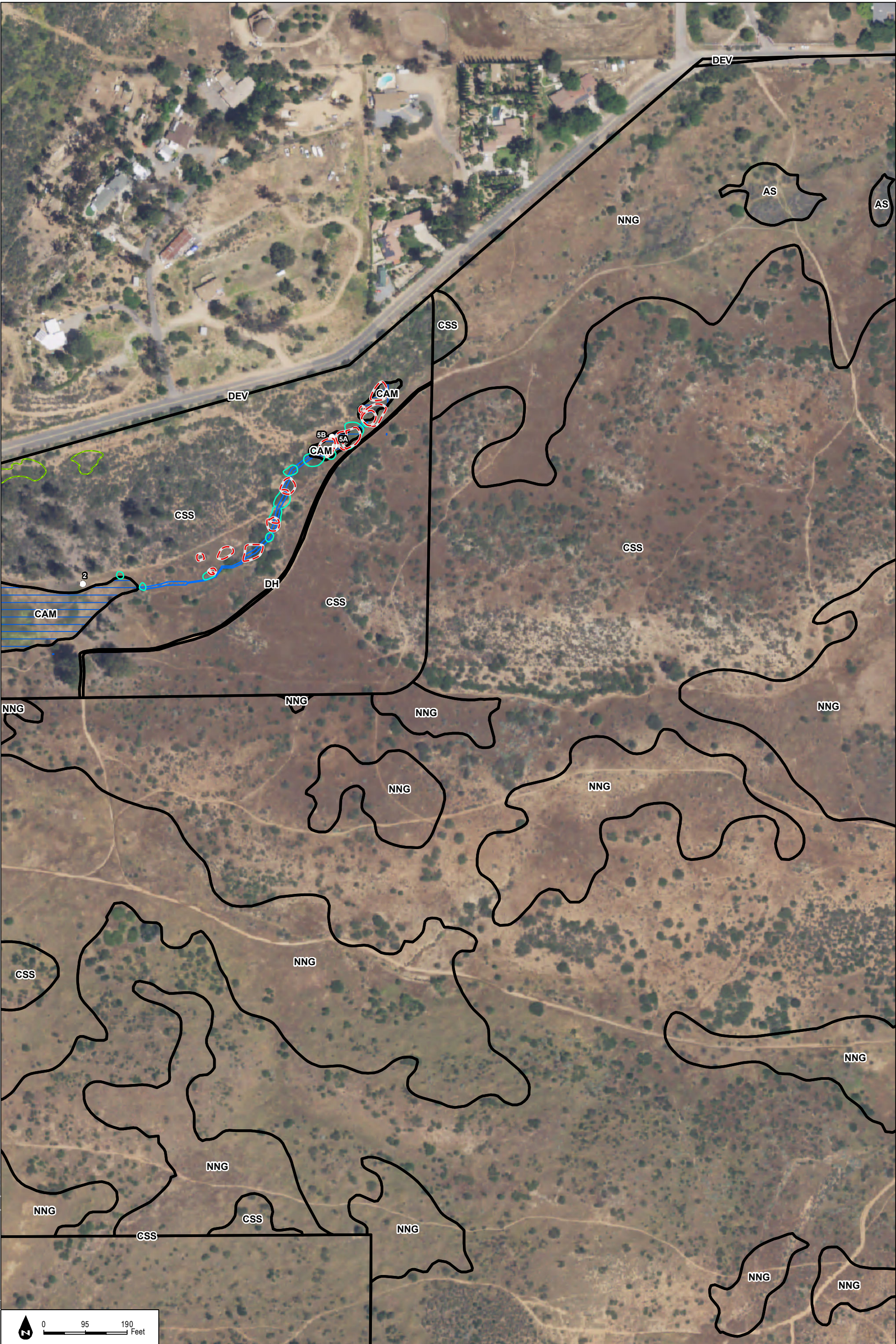


Figure 4-1d
Biological Resources

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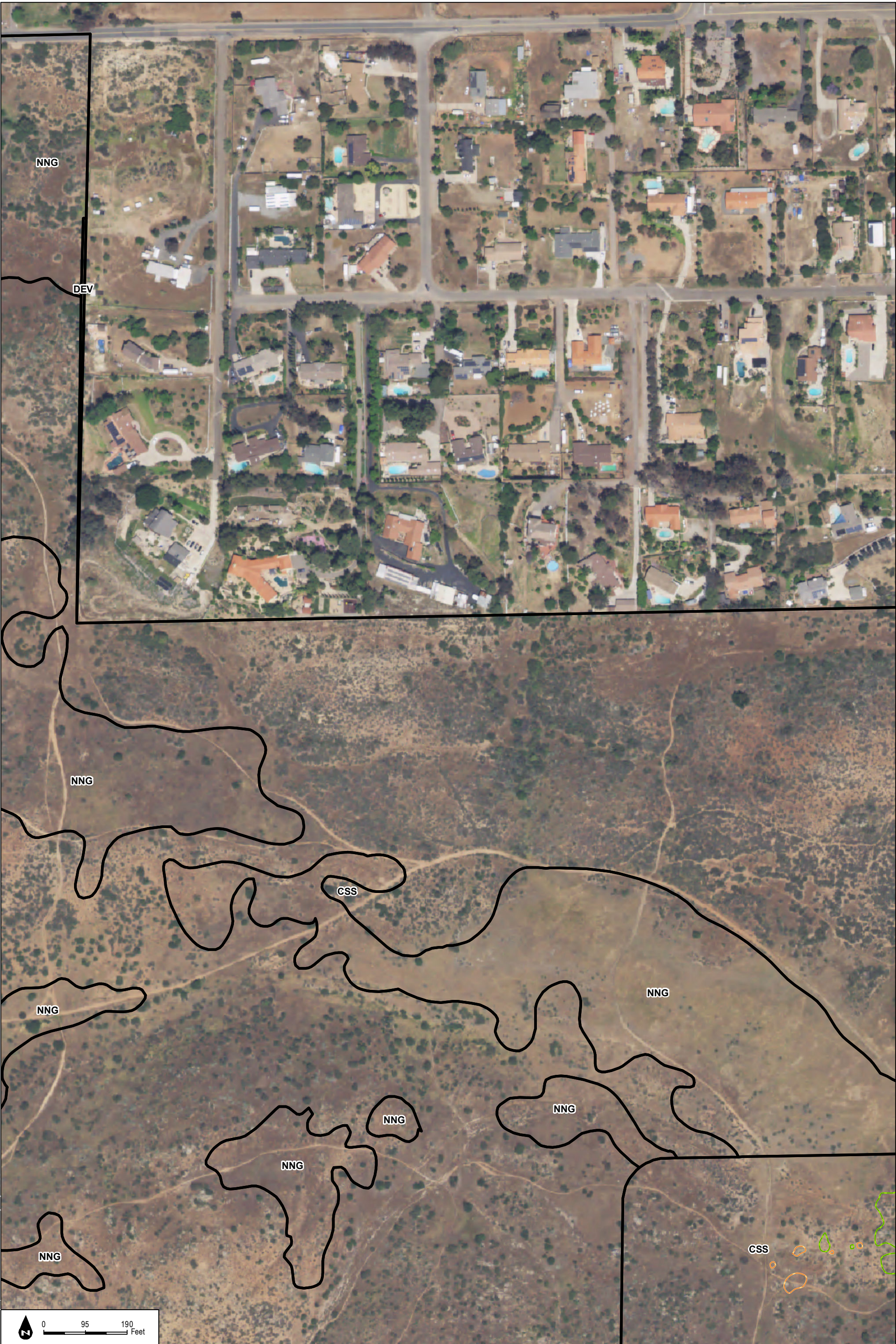


Figure 4-1e
Biological Resources

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