

January 17, 2022



Stephanie Standerfer
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Subject: *Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California*

Dear Ms. Standerfer:

This report documents the findings of a biological habitat assessment and constraints analysis conducted in compliance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) for the Calimesa Zoning Overlay Program Project (Project). Specifically, the following Assessor Parcel Numbers (APNs) were analyzed in support of the proposed Project: 411-200-001, 411-200-022, 411-200-007, 411-200-008, 411-200-002, 411-200-003, 411-200-004, 413-320-003, 411-171-018, 411-171-041, 410-080-045, 410-080-003, 410-080-005, 410-080-006, 410-181-013, 410-181-012, 410-181-011, 410-080-019, 410-080-007, 410-080-009, 410-080-050, 410-080-013, 410-080-014, 410-092-012, 410-162-012, 410-162-013, 410-162-014, 410-170-007, 410-170-025, 410-170-009, 410-170-010, 410-170-011, 410-170-012, 410-170-013, 409-100-009, and 409-100-011.

1 Project Description and Location

The purpose of the Project is for the City of Calimesa (City) to take advantage of new residential zoning laws that require jurisdictions to increase the amount of housing units available in their jurisdiction. The City has reviewed properties located in their boundary limits that are currently vacant/undeveloped and zoned residential, including one split zoned residential/commercial property, and intends to add a zone overlay to those properties to allow for increased density. The City will update its Zoning Ordinance and General Plan to reflect this new overlay zone. No impacts are proposed for the Project.

The following APNs are subject to an upzoning, or an increase in density and herein are collectively referred to as the, "Project": 411-200-001, 411-200-022, 411-200-007, 411-200-008, 411-200-002, 411-200-003, 411-200-004, 413-320-003, 411-171-018, 411-171-041, 410-080-045, 410-080-003, 410-080-005, 410-080-006, 410-181-013, 410-181-012, 410-181-011, 410-080-019, 410-080-007, 410-080-009, 410-080-050, 410-080-013, 410-080-014, 410-092-012, 410-162-012, 410-162-013, 410-162-014, 410-170-007, 410-170-025, 410-170-009, 410-170-010, 410-170-011, 410-170-012, 410-170-013, 409-100-009, and 409-100-011.

All APNs are located in the City of Calimesa, California (*Figure 1, Regional Location Map*; all figures are provided in Attachment A). All APNs are located within approximately 1.5 miles of Interstate Highway 10 and are generally sited within an existing urban environment (*Figure 2, Vicinity Map*).

All APNs are located in the El Casco 7.5-minute quadrangle map. The following APNs are located in Section 14 of Township 2 South, Range 2 West: 411-200-001 411-200-022 411-200-007 411-200-008 411-200-002, 411-200-003, 411-200-004, 411-171-018, and 411-171-041. The following APNs are located in Section 13 of Township 2 South, Range 2 West: 410-080-045, 410-080-003, 410-080-005, 410-080-006, 410-080-007 410-080-009, 410-080-013, 410-080-014, 410-080-019, 410-080-050, 410-092-012, 410-162-012, 410-162-013 410-162-014 410-170-007, 410-170-009, 410-170-010, 410-170-011, 410-170-012, 410-170-013, 410-170-025, 410-181-011, 410-181-012, and 410-181-013. The following APNs are located in Section 24 of Township 2 South, Range 2 West: 413-320-003. The following APNs are located in Section 18 of Township 2 South, Range 1 West: 409-100-009 and 409-100-011.

2 Methods

2.1 Literature Review

The following authoritative literature and databases were reviewed to evaluate the potential presence of special-status biota and environmental conditions of the Project locations or APNs: the U.S. Geological Survey El Casco 7.5-minute topographic quadrangle (USGS 2021), the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2021), the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP 2004), the California Natural Diversity Database (CNDDDB) (CNDDDB 2021), and the California Native Plant Society’s (CNPS) Inventory of Rare and Endangered Vascular Plants (CNPS 2021).

2.2 Field Assessment

On April 25th, 2021, May 6th, 2021, and September 3rd, 2021, Osprey Environmental Associates (Osprey) conducted a biological resources field assessment of the Project APNs. The field assessment was conducted on-foot to systematically assess and document the Project for sensitive biota and their habitats, including other environmental attributes such as topography, soil type, water features, and vegetation communities. Table 1 below provides the date, time, and average weather conditions for the extent of the field assessment.

Table 1. Field Assessment

Date/Time	Climatic Conditions
April 25 th , 2021/ 0900-1600	Air Temperature: 72°F; Wind:0-1 Miles per hour (MPH); Cloud Cover:75%
May 6 th , 2021/ 0830-1500	Air Temperature:78°F; Wind:1-2 Miles per hour (MPH); Cloud Cover:10%
September 3, 2021/ 0630-0800	Air Temperature:68°F; Wind:1-2 Miles per hour (MPH); Cloud Cover:0%

Vegetation Community and Land Cover Mapping

Vegetation communities and land cover types present in the Project APNs were mapped directly in the field on a 200-foot scale, aerial satellite imagery-based field map. Following completion of the field assessment, all vegetation communities were digitized and quantified using ArcGIS Pro software. Vegetation community classifications used in this document follow the MSHCP, with modifications derived from Oberbauer (2008) and Keeler-Wolf-Evens (2009) used to specify the classifications of the observed communities to those included in these references.

Flora

Plant species observed during the biological field assessment were identified by morphology and recorded in a standard field notebook. Plant species that could not be identified immediately in the field were identified in the laboratory using taxonomic keys. Latin and common names for plant species included in this report follow, *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012).

Fauna

Wildlife species detected during field surveys by sight, calls, tracks, scat, or other signs were recorded in a standard field notebook. General information regarding wildlife species present in the region was obtained Center of North American Herpetology (2021) for amphibians and reptiles, the American Ornithologists' Union (1998 and supplemental) for birds, and Bradley et al. (2014) for mammals.

Jurisdictional Resources

Satellite aerial imagery and USGS topographic maps were reviewed prior to the field survey to detect any potential Waters of the United States, including wetlands, under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), pursuant to Section 404 of the federal Clean Water Act; Waters of the State under the jurisdiction of the California Regional Water Quality Control Board (RWQCB), pursuant to Section 401 of the federal Clean Water Act and the Porter–Cologne Act; Streambeds under the jurisdiction of California Department of Fish and Wildlife (CDFW), pursuant to Section 1602 of the California Fish and Game Code, and MSHCP section 6.1.2 Riparian/Riverine resources. All potential jurisdictional resources located within the proposed Project footprints were mapped in the field, then digitized and using ArcGIS Pro software.

3 Environmental Setting

3.1 Land Uses

All APNs are located within or encompassed by a semi-urban environment composed of residential homes, commercial buildings, and/or farmlands.

3.2 Soils

Soil types and their locations are shown below in Table 2 and are depicted in Attachment A, Figures 3-A thru 3-F USDA Soils.

Table 2. Soils Type and Location

Soil Type	APN
Greenfield sandy loam, 2 to 8 percent slopes, eroded (GyC2)	410-170-007, 410-170-013, 410-170-025, 409-100-011
Hanford coarse sandy loam, 2 to 8 percent slopes (HcC)	410-170-007, 410-170-025
Ramona sandy loam, 15 to 25 percent slopes, severely eroded (RaE3)	410-170-025
Ramona sandy loam, 2 to 5 percent slopes, eroded (RaB2)	410-080-003, 410-080-005, 410-080-006, 410-080-007, 410-080-009, 410-080-013, 410-080-014, 410-080-019, 410-080-045, 410-080-050, 410-092-012, 410-162-012, 410-162-013, 410-162-014, 410-170-007, 410-170-009, 410-170-010, 410-170-011, 410-170-012, 410-170-013, 410-170-025, 410-181-011, 410-181-012, 410-181-013, 411-171-018, 411-171-041, 413-320-003, 409-100-011, 409-100-009
Ramona sandy loam, 8 to 15 percent slopes, eroded (RaD2)	411-200-001, 411-200-003, 411-200-004, 411-200-007, 411-200-008, 411-200-022
Ramona very fine sandy loam, 0 to 8 percent slopes, eroded (ReC2)	411-171-018, 411-200-001, 411-200-002, 411-200-003, 411-200-004, 411-200-007, 411-200-008
Ramona very fine sandy loam, moderately deep, 0 to 8 percent slopes, eroded (RfC2)	411-200-022
San Timoteo loam, 25 to 50 percent slopes, eroded (SmF2)	411-200-001, 411-200-003, 411-200-007, 411-200-008, 411-200-022
Terrace escarpments (TeG)	410-170-007, 410-170-025, 413-320-003

4 Results and MSHCP Compliance

4.1 Vegetation Communities and Land Cover Types

As shown on, Figure 4-A thru 4-F Vegetation and Land Cover Types, the following 10 vegetation communities and land cover types were documented within the Project site: Southern Coast Live Oak Riparian Forest (ORF), Prickly Pear Scrub (PPS), Undifferentiated Open Woodland (UOW), Chamise Chaparral (CC), Coast Live Oak Woodland (OAK), Agriculture (AG), California Buckwheat Scrub (BWS), Developed (DEV), Non-Native Grassland (NNG), and Disturbed Habitat (DH). Representative photographs of the Project site are provided in Attachment B of this document.

Vegetation and land cover types are described in detail below and a summary of the vegetation communities, land cover types, and their associated APNs and acreages is provided in Table 3 below.

Southern Coast Live Oak Riparian Forest (ORF)

Southern Coast Live Oak Riparian Forest is characterized as dense riparian forests dominated by evergreen sclerophyllous trees (*Quercus agrifolia*) with a closed, or nearly-closed, canopy. This type appears to be richer in herbs and poorer in understory shrubs than other riparian communities (Oberbauer 2008).

A total of 0.46-acres of Southern Coast Live Oak Riparian Forest occurs within the following bordering APNs: 411-200-022, 411-200-001, and 411-200-003. The community is dominated by Coast live oak and occurs along the banks of an ephemeral drainage feature (Drainage A).

Prickly Pear Scrub (PPS)

Prickly Pear Scrub is characterized as a shrub community usually reaching less than 2 meters in height with an intermittent or continuous canopy dominated by prickly pear cactus (*Opuntia littoralis*). The herbaceous layer is typically open to continuous (Keeler-Wolf-Evens 2009).

A total of 0.08-acres of Prickly Pear Scrub is located within APN 413-320-003 and is dominated by prickly pear cactus with an herbaceous layer composed of non-native grasses (i.e., *Bromus sp.*).

Undifferentiated Open Woodland (UOW)

Undifferentiated Open Woodland is a catch-all category used when species composition is unknown, but the structural characteristic of the vegetation is known (Oberbauer 2008).

A total of 1.0-acres of Undifferentiated Open Woodland occurs within the Project and is distributed throughout the following APNs: 411-200-002, 411-200-008, 410-181-011, 410-080-009, 410-080-007, 410-080-005, 410-170-011, 413-320-003, 410-162-012, and 410-162-013. Undifferentiated Open Woodland primarily occurs throughout the Project along residential homes and neighborhoods. The species composition within the Project is primarily composed of a mix of ornamental tree species (e.g., *Pinus sp.*, *Olea sp.*, *Melia sp.* and *Eucalyptus sp.*).

Chamise Chaparral (CC)

A 1-3 m tall chaparral overwhelmingly dominated by chamise (*Adenostoma fasciculatum*). Mature stands are densely interwoven with very little herbaceous understory or litter; typically occurs on shallower, drier soils or at somewhat lower elevations (Oberbauer 2008).

A total of 1.02-acres of Chamise Chaparral occurs throughout APNs: 411-200-022, 410-170-025, and 413-320-003. Within the Project, Chamise Chaparral is dominated by chamise, non-native grasses (*Bromus sp.*), with occurrences of California buckwheat (*Eriogonum fasciculatum*) at a relatively low percent cover.

Coast Live Oak Woodland (OAK)

This woodland is dominated by Coast live oak (*Quercus agrifolia*), an evergreen oak that reaches 10-25 m in height; the shrub layer is typically poorly developed (Oberbauer 2008).

A total of 0.64-acres of Coast Live Oak Woodland occurs throughout APNs: 411-200-007,411-200-022, and 413-320-003. The community is dominated by Coast live oak with an intermittent understory mosaic of black mustard (*Brassica nigra*), and *Bromus sp.*

Agriculture (AG)

According to Oberbauer (2008), lands that support an active agricultural operation may be classified as Agriculture.

A total of 0.99-acres of Agriculture lands occurs on APNs: 410-080-005, and 410-080-006. The Agriculture land cover type is composed of a large community garden.

California Buckwheat Scrub (BWS)

California Buckwheat Scrub is dominated by California buckwheat. The shrub canopy is typically continuous or intermittent and the herbaceous layer may be grassy (Keeler-Wolf-Evens 2009).

A total of 0.08-acres of California Buckwheat Scrub occurs on APN 410-170-025. The community is dominated by California buckwheat with sporadic occurrences of deerweed and non-native grasses (*Bromus sp.*)

Developed (DEV)

According to Oberbauer (2008) Developed land cover type is characterized as areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported (Oberbauer 2008). Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident due to a large amount of debris or other materials being placed upon it may also be considered Developed land.

A total of 9.69-acres of Developed Land is present throughout the following APNs: 411-080-003, 411-200-022,411-200-001,411-200-004,411-200-002,411-200-003,411-200-008,411-200-007,410-080-009,410-080-007,410-080-005,410-080-013,410-080-014,410-080-050,410-162-012,410-162-014,410-170-007,410-170-009,410-170-010,410-170-011,410-170-012,410-170-013,413-320-003, 410-080-045, and 410-181-011. Developed lands within the Project primarily consist of single-family homes, sheds, and concrete/asphalted areas.

Non-Native Grassland (NNG)

Non-Native Grassland is a dense to sparse cover of annual grasses that occurs throughout the valleys and foothills of most of California except for the north coastal and desert regions (Oberbauer 2008).

A total of 32.75-acres of Non-Native Grassland occurs throughout APNs: 410-170-025, 413-320-003,411-200-007,411-200-001,411-200-003,411-200-002,411-200-004,410-080-006,410-181-013,410-181-012,410-181-011,410-080-019,410-080-009,410-080-007,410-080-005,410-080-013, 410-162-012, 410-162-013, 410-162-014, 410-170-007, 410-170-009, 410-170-013, 411-200-008,

and 409-100-011. The Non-Native Grassland located throughout the APNs listed above is dominated by foxtail brome, ripgut brome, slender wild oat, and red brome (*Bromus rubens*).

Disturbed Habitat (DH)

Disturbed habitat refers to areas that are not developed and have been physically disturbed by anthropogenic mechanisms yet retain a soil substrate and are almost exclusively covered by non-native species (Oberbauer 2008).

A total of 40.37-acres of Disturbed Habitat occurs throughout the following APNs: 410-080-003, 410-170-025, 410-170-012, 410-162-012, 410-080-014, 410-080-045, 411-200-008, 411-200-004, 411-200-022, 411-200-007, 410-080-050, 411-171-018, 411-171-041, 410-092-012, 409-100-009, and 409-100-011. Disturbed Habitat is primarily mapped as areas that have been recently tilled and left fallow, including areas that exhibit a high degree of anthropogenic disturbances, yet still retain a soil substrate.

Table 3. Vegetation or Land Cover Type and Associated Acreage

APN	Vegetation and Land Cover Type
411-200-007	DEV (0.09 ac), DH (5.63 ac), NNG (4.33 ac), OAK (0.36 ac)
411-200-008	DEV (0.02 ac), DH (5.19 ac), NNG (3.68 ac), UOW (0.29 ac)
410-080-003	DEV (0.31 ac), DH (0.59 ac)
410-080-005	AG (0.03 ac), DEV (0.14 ac), NNG (0.15 ac), UOW (0.11 ac)
410-080-006	AG (0.96 ac), NNG (3.65 ac)
410-080-007	DEV (0.07 ac), NNG (0.23 ac), UOW (0.02 ac)
410-080-009	DEV (0.32 ac), NNG (0.42 ac), UOW (0.04 ac)
410-080-013	DEV (0.03 ac), NNG (0.93 ac)
410-080-014	DEV (0.20 ac), DH (0.75 ac)
410-080-019	NNG (0.50 ac)
410-080-045	DEV (0.20 ac), DH (0.96 ac)
410-080-050	DEV (0.52 ac), DH (2.16 ac)

410-092-012	DH (1.44 ac)
410-162-012	DEV (0.59 ac), DH (0.38 ac), NNG (0.84 ac), UOW (0.15 ac)
410-162-013	NNG (2.96 ac), UOW (0.04 ac)
410-162-014	DEV (0.15 ac), NNG (0.12 ac)
410-170-007	DEV (0.18 ac), NNG (5.28 ac)
410-170-009	DEV (0.29 ac), NNG (0.14 ac)
410-170-010	DEV (0.43 ac)
410-170-011	DEV (0.30 ac), UOW (0.04 ac)
410-170-012	DEV (0.31 ac), DH (0.2 ac)
410-170-013	DEV (0.50 ac), NNG (0.04 ac)
410-170-025	BWS (0.08 ac), CC (0.26 ac), DH (4.52 ac), NNG (0.51 ac)
410-181-011	DEV (0.06 ac), UOW (0.03 ac), NNG (0.13 ac)
410-181-012	NNG (0.23 ac)
410-181-013	NNG (0.23 ac)
411-171-018	DH (3.03 ac)
411-171-041	DH (5.13 ac)
411-200-001	DEV (3.16 ac), NNG (0.05 ac), ORF (0.11 ac)
411-200-002	DEV (0.17 ac), NNG (0.18 ac), UOW (0.17 ac)
411-200-003	DEV (0.02 ac), NNG (0.77 ac), ORF (0.03 ac)
411-200-004	DEV (0.69 ac), NNG (0.05 ac), DH (0.59 ac)
411-200-022	DEV (0.02 ac), CC (0.73 ac), DH (2.82 ac), OAK (0.19 ac), ORF (0.32 ac)

413-320-003	DEV (0.92 ac), CC (0.03 ac), NNG (3.56 ac), OAK (0.09 ac), PPS (0.08 ac), UOW (0.11 ac)
409-100-009	DH (1.19 ac)
409-100-011	NNG (3.77 ac), DH (5.79 ac)

Note: Vegetation acreages sum to the associated geographic Assessor parcel acreages.

4.2 Special-Status Plant Species

No special-status plant species were identified during the biological field assessments of the Project. No U.S. Fish and Wildlife Service (USFWS)-designated critical habitat for listed plant species occurs within the Project, and no CNDDDB special-status plant species occurrences are documented within the Project or vicinity.

Criteria Area Plant Species Survey Area

No APNs occur in a Criteria Area Plant Species Survey Area (RCA GIS Data Downloads 2021). The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered. No additional surveys are required.

Narrow Endemic Plant Species Survey Area

The following APNs occur within a predetermined MSHCP Survey Area for two (2) Narrow Endemic plant species, Munz's onion (*Allium munzii*) [Federal endangered, State threatened, CRPR 1B.1] and many-stemmed dudleya (*Dudleya multicaulis*) [CRPR 1B.2]: 411-200-001, 411-200-004, 411-200-022, 411-200-007, 411-200-008, 410-170-007, 410-170-025, and 413-320-003 (RCA GIS Data Downloads 2021). Details of the species noted above is provided below.

Munz's Onion

Munz's onion is a bulb-forming perennial herb endemic to western Riverside County, California, and occurs primarily in areas between the elevations of 1,200 to 2,700 feet from Temescal Canyon southeast to the foothills of the San Jacinto Mountains. The plants are adapted to seasonal drought and variable annual rainfall, prefer clay soils, and are dormant from mid-summer through autumn. When in bloom, they produce a single leaf and a leafless flower stalk 0.5 to 1.2 feet tall topped with a cluster of 10 - 35 white flowers (USFWS 2021A).

Munz's onion is not expected to occur within APNs: 411-200-001, 411-200-004, 411-200-022, 411-200-007, 411-200-008, 410-170-007, 410-170-025, and 413-320-003. All APNs exhibit heavy anthropogenic disturbances (e.g., tilled soils) and are dominated by Developed or Disturbed Habitat land cover types. Furthermore, suitable clay soils are not present, no CNDDDB occurrences are documented within the USGS El Casco quadrangle, and none were observed during the biological assessment. As such, a focused-rare plant survey is not warranted for Munz's onion.

Many-Stemmed Dudleya

Many-stemmed dudleya is perennial herb endemic to southern California and occurs primarily in areas between elevations 50 to 3,500 feet. The plants are adapted to heavy clay soils and are associated with chaparral, coastal scrub, and valley and foothill grassland habitat types.

Many-stemmed dudleya is not expected to occur within APNs: 411-200-001, 411-200-004, 411-200-022, 323, 411-200-007, 411-200-008, 410-170-007, 410-170-025, and 413-320-003. All APNs exhibit heavy anthropogenic disturbances (e.g., tilled soils) and are dominated by Developed or Disturbed Habitat land cover types. Furthermore, suitable clay soils are not present, no CNDDDB occurrences are documented within the USGS El Casco quadrangle, and none were observed during the biological assessment. As such, a focused-rare plant survey is not warranted for many-stemmed dudleya

4.3 Special-Status Wildlife Species

No special-status wildlife species were detected during the biological assessment. No U.S. Fish and Wildlife Service (USFWS)-designated critical habitat for listed wildlife species occurs in the Project site.

Burrowing Owl Survey Area

The following APNs occur within a predetermined MSHCP Survey Area for burrowing owl: 411-200-001, 411-200-004, 411-200-022, 411-200-007, 411-200-008, 410-170-007, 410-170-025, and 413-320-003 (RCA GIS Data Downloads 2021).

Burrowing owl habitat is present within the following APNs: 411-200-022, 411-200-007, 411-200-008, 410-170-007, 410-1700-25, and 413-320-003. As such, burrowing owl surveys and pre-construction surveys are required for the APNs listed above, per the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (2006).

SKR Fee Area

The Project does not occur in the SKR Fee Area. No further action required.

Amphibian Species Survey Area

The Project does not occur within an MSHCP Amphibian Species Survey Area.

Mammal Species Survey Area

The Project does not occur within an MSHCP Mammal Species Survey Area.

Nesting Birds

The Project site provides suitable habitat for common and MSHCP covered nesting bird species. Direct impacts to nesting birds must be avoided in accordance with the Migratory Bird Treaty Act and CDFG Code Section 3503. If ground-disturbance activities occur during the avian nesting season, preconstruction surveys and avoidance measures must be implemented.

4.4 Jurisdictional Waters

As shown on, *Figure 5. MSHCP Riparian/Riverine and Jurisdictional Waters*, one ephemeral drainage feature (Drainage A) is present in APN 411-200-022. Drainage A flows in the southeast direction along the northern portion of APN 411-200-022, eventually exiting the APN through a constructed concrete box culvert. Drainage A represents potentially non-wetland waters of the state as defined in the Procedures, under the jurisdiction of the California RWQCB, pursuant to Section 401 of the federal Clean Water Act and the Porter-Cologne Water Quality Control Act; and Streambeds under the jurisdiction of the CDFW, pursuant to Section 1602 of the California Fish and Game Code. As such, a formal jurisdictional delineation will likely be required for APN 411-200-022, including obtainment of the applicable regulatory permits/certifications if impacts are proposed.

4.5 MSHCP Riparian, Riverine, and Vernal Pools

Section 6.1.2 of the MSHCP provides for the protection of riparian/riverine areas and vernal pools that occur within the MSHCP Plan Area. Riparian/riverine areas are defined as follows (MSHCP 2004):

“Lands which contain Habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or, areas with fresh water flow during all or portion of the year”.

Riparian/riverine areas typically have the same delineation as the area within jurisdiction of CDFW. With exception of wetlands created for the purpose of providing wetland habitat or resulting from human actions to create open waters, or from the alteration of natural stream courses; areas demonstrating characteristics as described above, which are artificially created, are not included in these definitions (MSHCP 2004).

MSHCP Section 6.1.2 Riverine Resources

As shown on, *Figure 5. MSHCP Riparian/Riverine and Jurisdictional Waters*, ephemeral drainage feature, Drainage A, is located on APN 411-200-022 and is considered an MSHCP Riverine resource per section 6.1.2 of the MSHCP. As such, direct or indirect impacts to these resources will require the development of an MSHCP Determination of Biological Equivalent or Superior Preservation Report (DBESP).

MSHCP Section 6.1.2 Riparian Resources

As shown on, *Figure 5. MSHCP Riparian/Riverine and Jurisdictional Waters*, a total of 0.46-acres of Southern Coast Live Oak Riparian Forest (ORF) occurs within the following bordering APNs: 411-200-022, 411-200-001, and 411-200-003. Southern Coast Live Oak Riparian Forest is considered an MSHCP Riparian resources per section 6.1.2 of the MSHCP.

MSHCP Section 6.1.2 Vernal Pool Resources

No indicators of ponding or vernal pool plant species were observed during the biological field assessment, or during review of the historic satellite imagery and topographic maps. Furthermore, the soils present within the project site are well-drained and not typically associated with vernal pool formation.

MSHCP Section 6.1.2 Sensitive Riparian Bird Species

Least Bell's Vireo (*Vireo bellii pusillus*)

As stated by the MSHCP:

“The least Bell's vireo occupies a more restricted nesting habitat than the other subspecies of Bell's vireo as summarized in USFWS (1986). Least Bell's vireos primarily occupy riverine riparian habitats that typically feature dense cover within 1-2 meters of the ground and a dense, stratified canopy. It inhabits low, dense riparian growth along water or along dry parts of intermittent streams. Typically, it is associated with southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, wild blackberry, or mesquite in desert localities (MSHCP 2004).

The Southern Coast Live Oak Riparian Forest documented within APNs: 411-200-022, 411-200-001, and 411-200-003, does not represent suitable habitat for the least Bell's vireo. The riparian habitat lacks the typical preferred riparian plant species composition and structural components (i.e., a willow-dominated riparian habitat with lush understory vegetation) and is isolated from larger contiguous stands of suitable riparian habitat.

No focused surveys are recommended for the least Bell's vireo.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

As stated by the USFWS:

“The southwestern willow flycatcher occurs in riparian habitats along rivers, streams, or other wetlands, where dense growths of willows (*Salix sp.*) *Baccharis*, arrowweed (*Pluchea sp.*) tamarisk (*Tamarix sp.*), or other plants are present, often with a scattered overstory of cottonwood (*Populus sp.*) (USFWS 1985).

The Southern Coast Live Oak Riparian Forest documented within APNs: 411-200-022, 411-200-001, and 411-200-003; does not represent suitable habitat for the southwestern willow flycatcher. The riparian habitat lacks the typical preferred riparian plant species composition and structural components (i.e., a willow, or mulefat, or *Baccharis sp.*, or tamarisk sp.) and is isolated from larger contiguous stands of suitable riparian habitat.

No focused surveys are recommended for the southwestern willow flycatcher.

Western Yellow-Billed Cuckoo (*Coccyzus americanus*)

As stated by the USFWS:

“Western yellow-billed cuckoos appear to require large blocks of riparian habitat for nesting. Along the Sacramento River in California, nesting yellow-billed cuckoos occupied home ranges which included 25 acres or more of riparian habitat. Another study on the same river found riparian patches with yellow-billed cuckoo pairs to average 99 acres (40 hectares). Home ranges in the South Fork of the Kern River in California averaged about 42 acres (17 hectares)” (USFWS 2021B).

The Southern Coast Live Oak Riparian Forest documented within APNs: 411-200-022, 411-200-001, and 411-200-003; does not represent suitable habitat for the western yellow-billed cuckoo. The riparian habitat present is sparse and isolated from larger-contiguous stands of robust and suitable riparian habitat.

No focused surveys are recommended for the western yellow-billed cuckoo.

4.6 Cores and Linkages

The MSHCP defines a Core Area as a block of habitat of appropriate size, configuration, and vegetation characteristics to generally support the life history requirements of one or more Covered Species. The MSHCP defines a Linkage as, connection between Core Areas with adequate size, configuration and vegetation characteristics to generally provide for "live-in" habitat and/or provide for genetic flow for identified Planning Species. Core Areas and Linkages are further discussed below in relation to the proposed Project.

No APNs associated with the Project are located within a designated MSHCP Core or Linkage Areas.

4.7 Urban/Wildlands Interface Guidelines

Projects located in proximity to the MSHCP Conservation Area may result in edge effects or indirect impacts that could adversely affect biological resources within the MSHCP Conservation Area. The MSHCP Conservation Area is defined by hard-lined boundaries; either a parcel boundary or conservation easement boundary of acquired Additional Reserve Lands, Conserved Habitat, or Public/Quasi-Public Lands.

The Project Site is not located adjacent to an existing or proposed MSHCP Conservation Areas. The project is consistent with MSHCP Section 6.1.4.

4.8 MSHCP Criteria Areas/Criteria Cells, and PQP lands

The proposed Project site is within, *The Pass Area Plan*, of the MSHCP. As shown on *Figure 6, MSHCP Criteria Cells*, the following APNs are located within a Criteria Cell: 411-200-022 (Criteria Cell 323), 411-200-007 (Criteria Cell 323), 411-200-008 (Criteria Cell 323), and 413-320-003 (Criteria Cell 410). The following APNs are located adjacent to a Criteria Cell: 411-171-018 (Criteria Cell 326) and 411-171-041 (Criteria Cell 326).

Per the MSHCP, conservation description for Cell 323 states the following:

“Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 23. Conservation within this Cell will focus on chaparral and grassland. Areas conserved within this Cell will be connected to chaparral and grassland habitat proposed for conservation to the south, east, and west in Cells #417, #326, and #311. Conservation within this Cell will range from 5%-15% focusing on the southern portion of the Cell.”

Per the MSHCP, conservation description for Cell 326 states the following:

“Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 23. Conservation within this Cell will focus on coastal sage scrub, chaparral, and grassland. Areas conserved within this Cell will be connected to uplands proposed for conservation to the south and west in Cells #411 and #323. Conservation within this Cell will be approximately 5% focusing on the southern portion of the Cell.”

Per the MSHCP, conservation description for Cell 410 states the following:

“Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 23. Conservation within this Cell will focus on chaparral and grassland. Areas conserved within this Cell will be connected to chaparral habitat proposed for conservation to the east in Cell #407 and to habitat proposed for conservation to the west in Cell #411. Conservation within this Cell will range from 30%-40% focusing on the northern portion of the Cell.”

No impacts are proposed by the Project. No further analysis is required.

4.9 Summary/Recommended Mitigation Measures

No impacts are expected as a result of the proposed Project. However, the following mitigation measures are recommended for compliance with the MSHCP:

MM-Bio-1- Burrowing Owl

Burrowing owl surveys per the *BURROWING OWL SURVEY INSTRUCTIONS For the Western Riverside Multiple Species Habitat Conservation Plan*, shall be conducted, including a 30-day burrowing owl pre-construction survey for the following APNs: 411-200-001, 411-200-004, 411-200-022, 411-200-007, 411-200-008, 410-170-007, 410-170-025, and 413-320-003.

MM-Bio-2- Nesting Birds

The Project site provides suitable habitat for common and MSHCP covered nesting bird species. Direct impacts to nesting birds must be avoided in accordance with the Migratory Bird Treaty Act and CDFG Code Section 3503. If ground-disturbance activities occur during the avian nesting season, preconstruction survey and avoidance measures, must be implemented.

MM-Bio-3- Jurisdictional Waters

Prior to issuance of a grading permit, the project applicant will conduct a formal jurisdictional delineation, for APN 411-200-022, to determine the extent of resources onsite regulated by the USACE, CDFW, or RWQCB. The project applicant may be required to obtain all applicable permits which may include, 404 Nationwide Permit from the USACE, 1602 Streambed Alteration Agreement from CDFW, and a 401 Certification issued by the RWQCB pursuant to the California Water Code Section 13260.

MM-Bio-4- MSHCP Riverine and Riparian Resources Section 6.1.2

Drainage A and Southern Coast Live Oak Riparian Forest represent MSHCP Riparian/Riverine Resources and are located on APNs: 411-200-022, 411-200-001, and 411-200-003. Direct or indirect impacts to MSHCP Riparian/Riverine resources will require the development of an MSHCP DBESP.

Should you have any questions regarding this report or require additional information, please do not hesitate to contact me at (949) 356-8476 or mpaymard@ospreyenv.com

Sincerely,



Marshall Paymard
Senior Biologist/GIS Analyst/UAV Pilot

5 References

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Attachment A

Report Figures



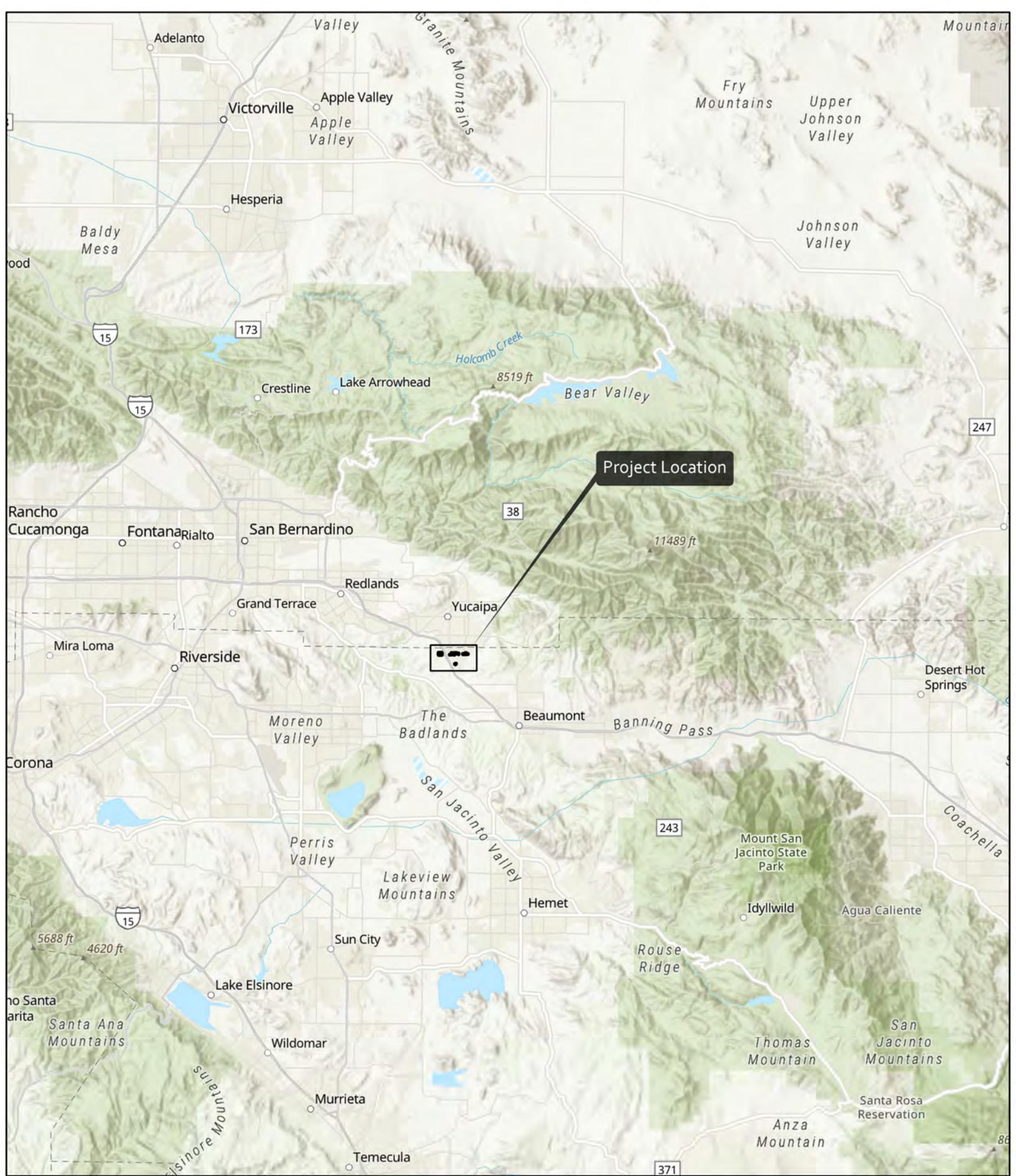
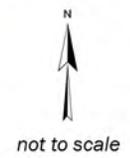


Figure 1- Regional Location Map

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



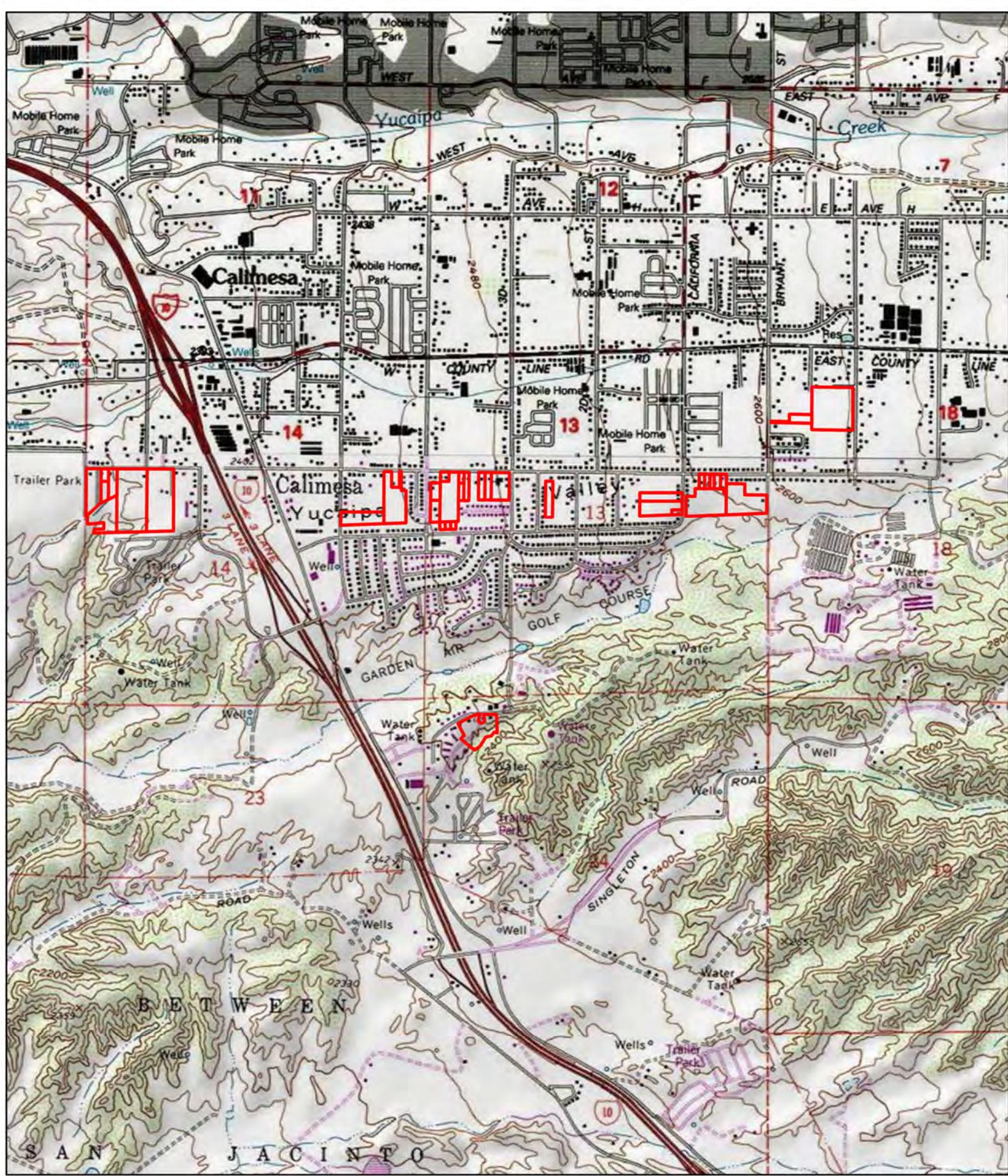
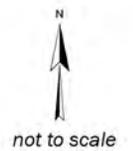
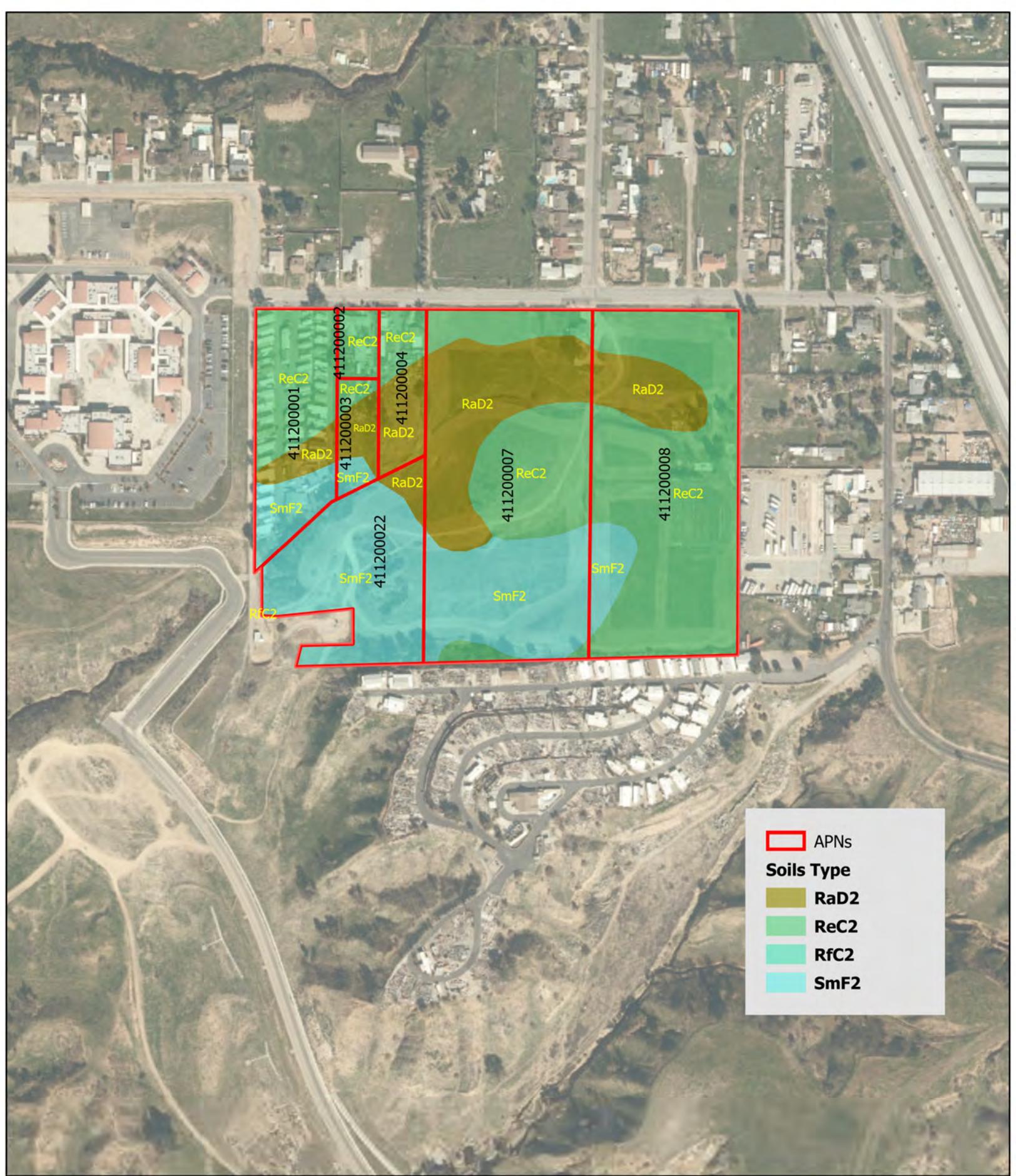


Figure 2- Vicinity Map

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





APNs

Soils Type

- RaD2
- ReC2
- RfC2
- SmF2

Figure 3-A. USDA Soils

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



not to scale

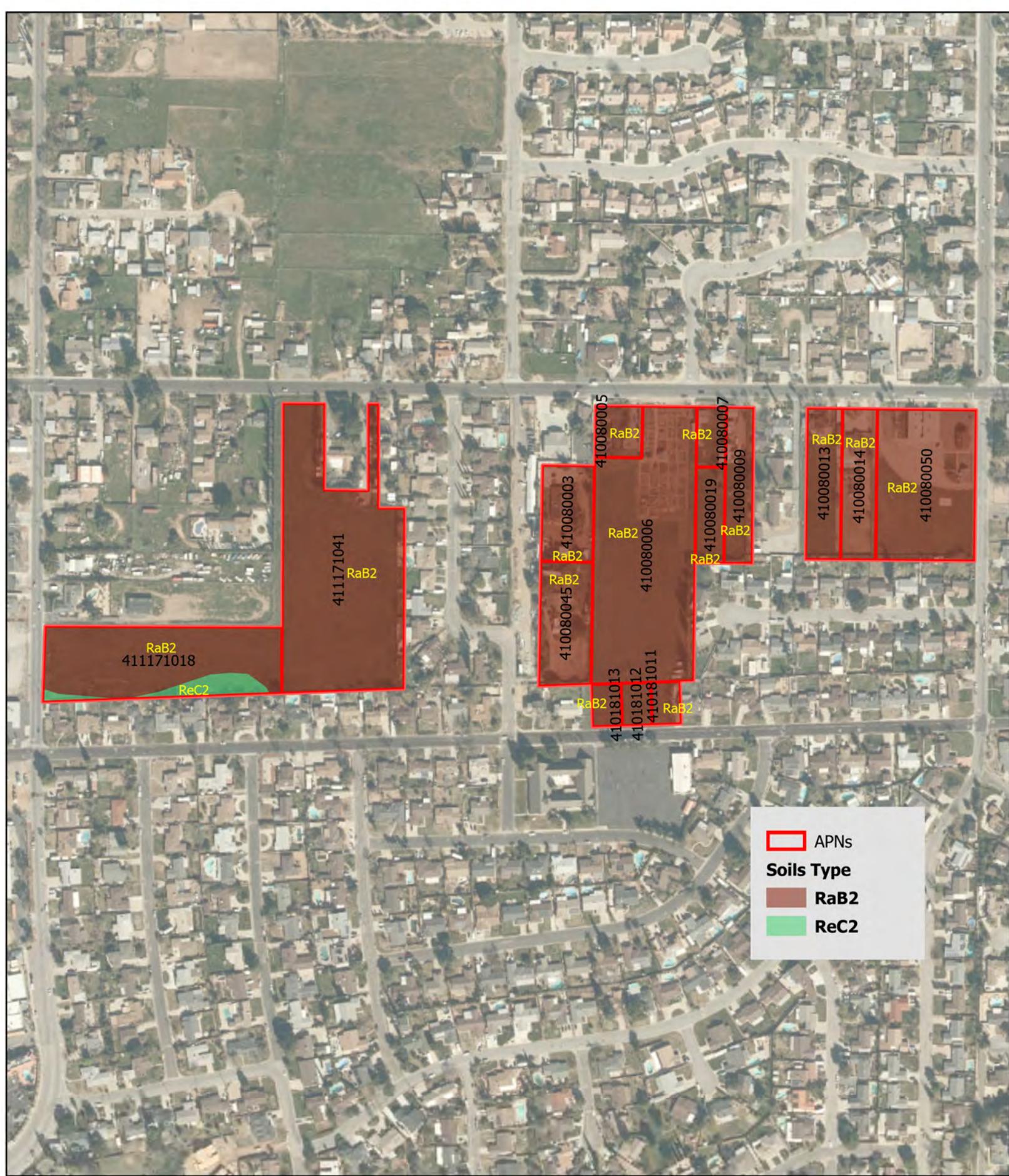


Figure 3-B. USDA Soils

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





Figure 3-C. USDA Soils

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



not to scale

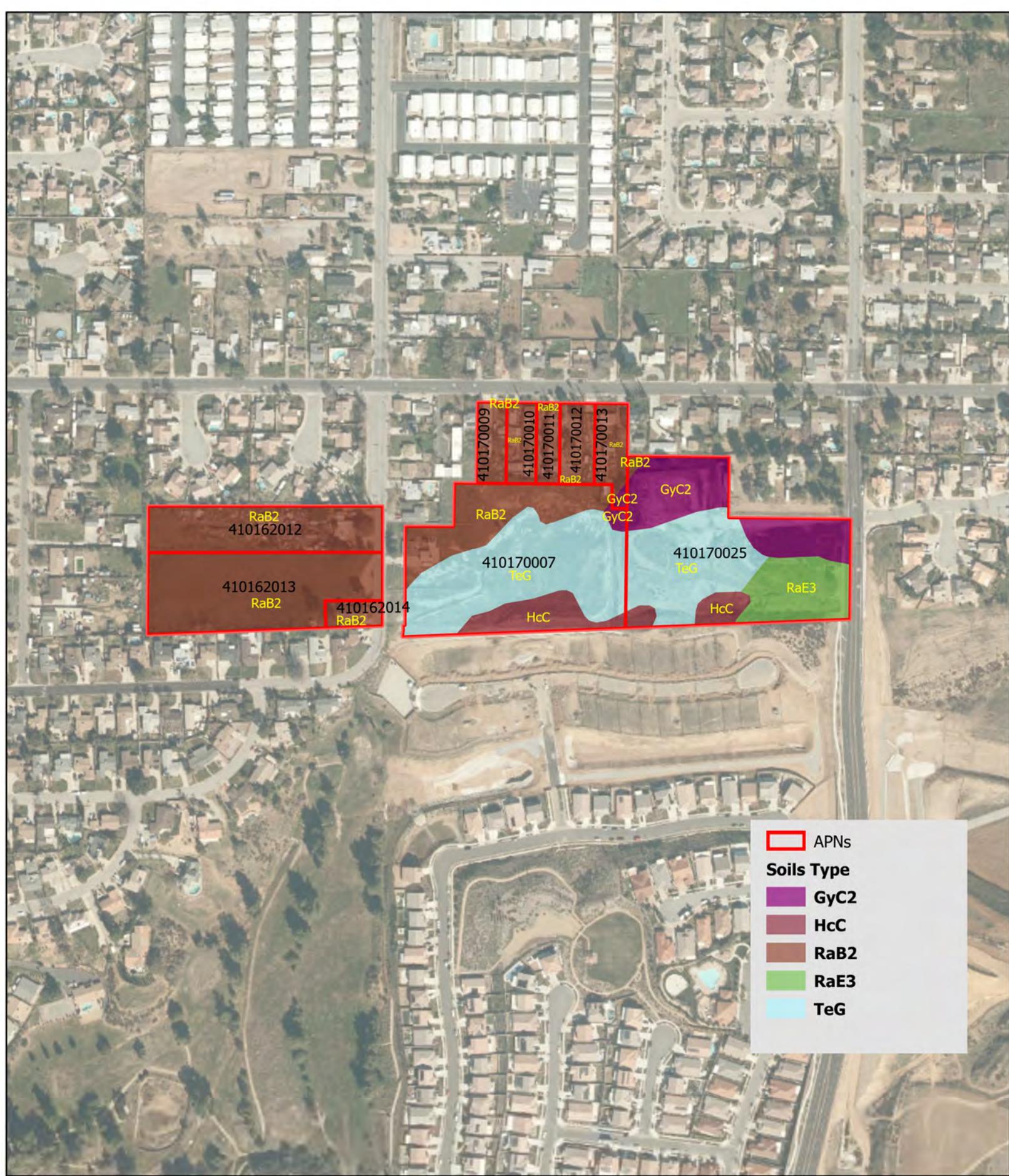


Figure 3-D. USDA Soils

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





Figure 3-E. USDA Soils

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





Figure 3-F. USDA Soils

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





Figure 4-A. Vegetation and Land Cover Types

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



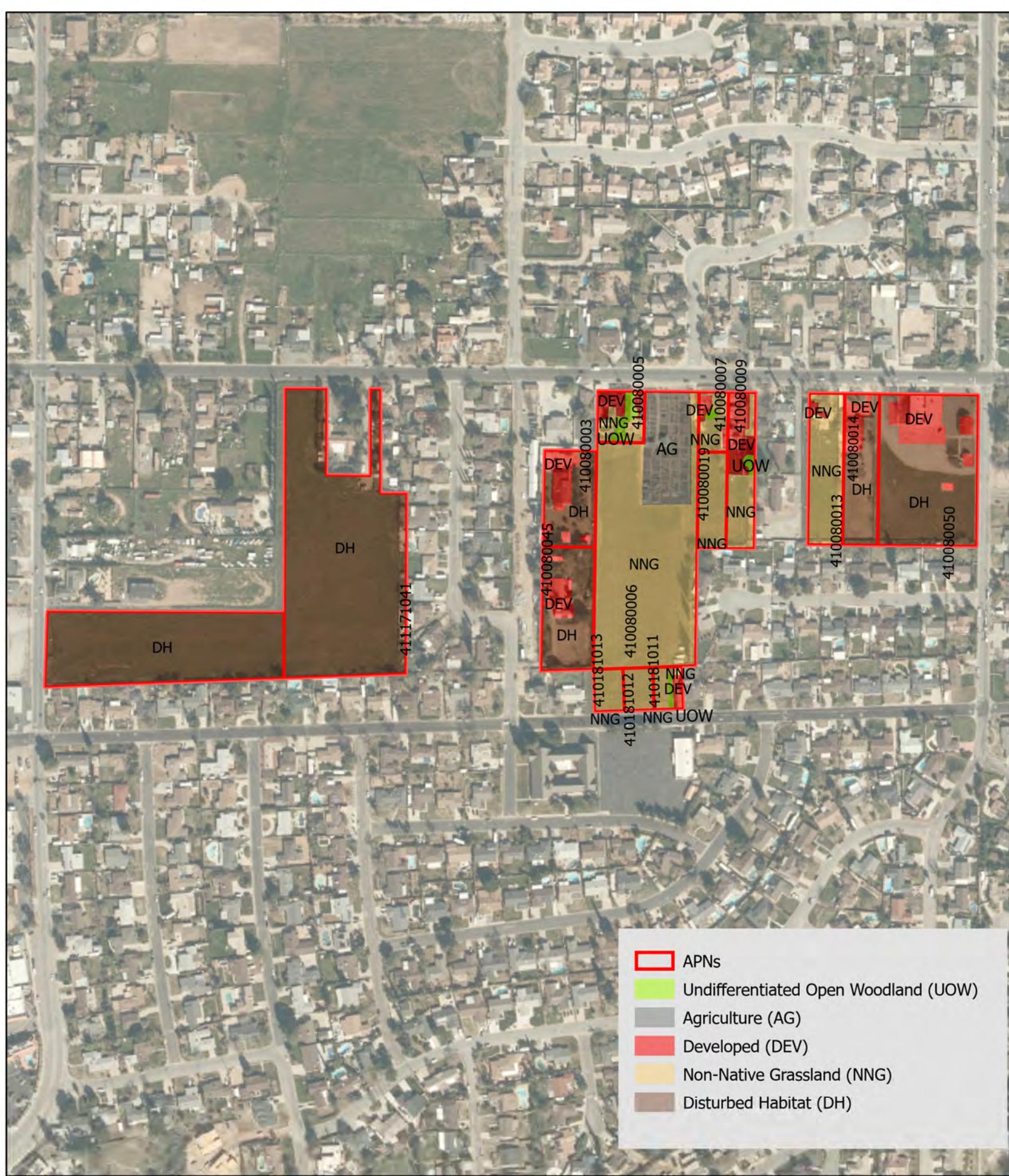


Figure 4-B. Vegetation and Land Cover Types

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





Figure 4-C. Vegetation and Land Cover Types

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



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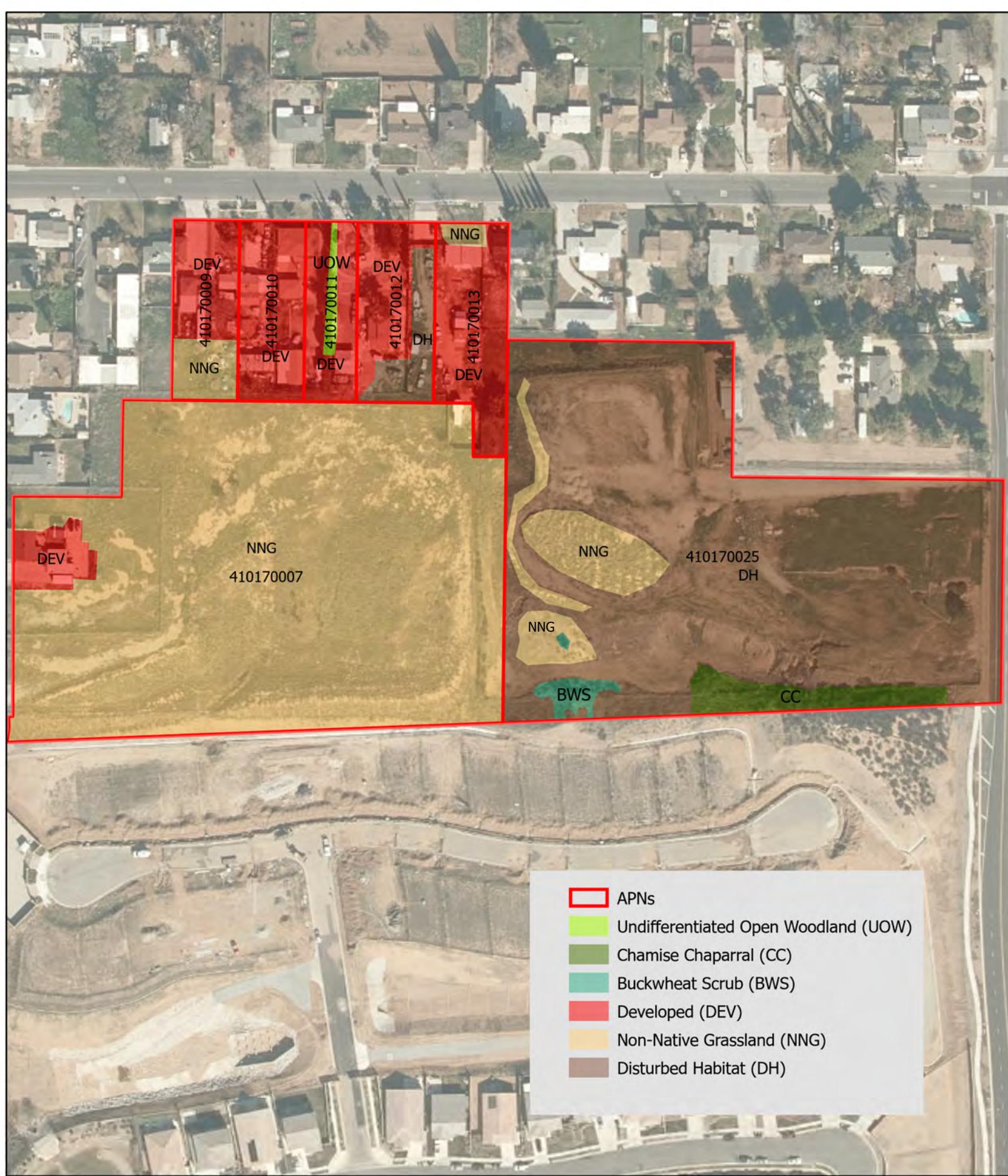


Figure 4-D. Vegetation and Land Cover Types

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



not to scale



Figure 4-E. Vegetation and Land Cover Types

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



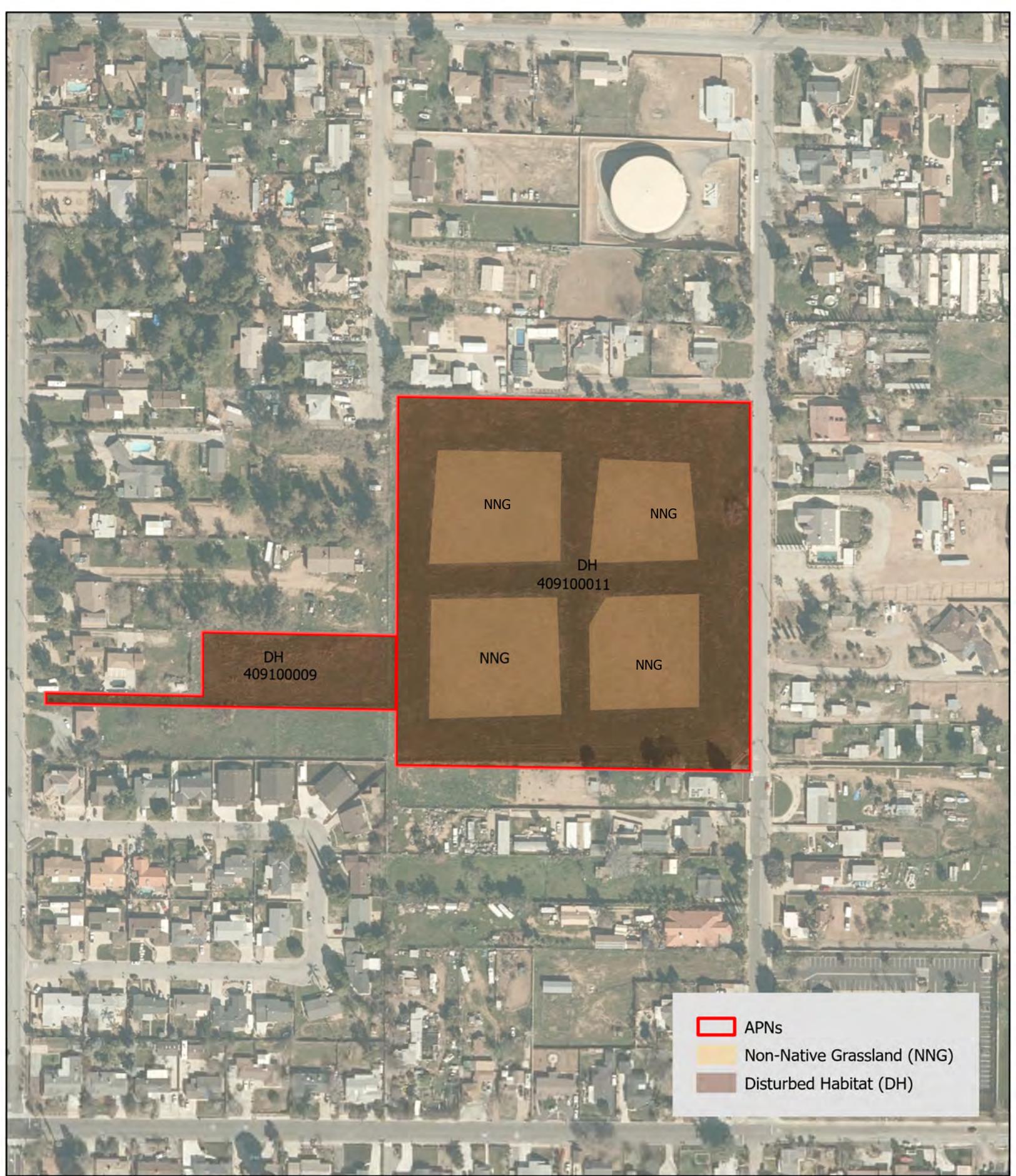


Figure 4-F. Vegetation and Land Cover Types

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





Figure 5. MSHCP Riparian/Riverine and Jurisdictional Waters

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



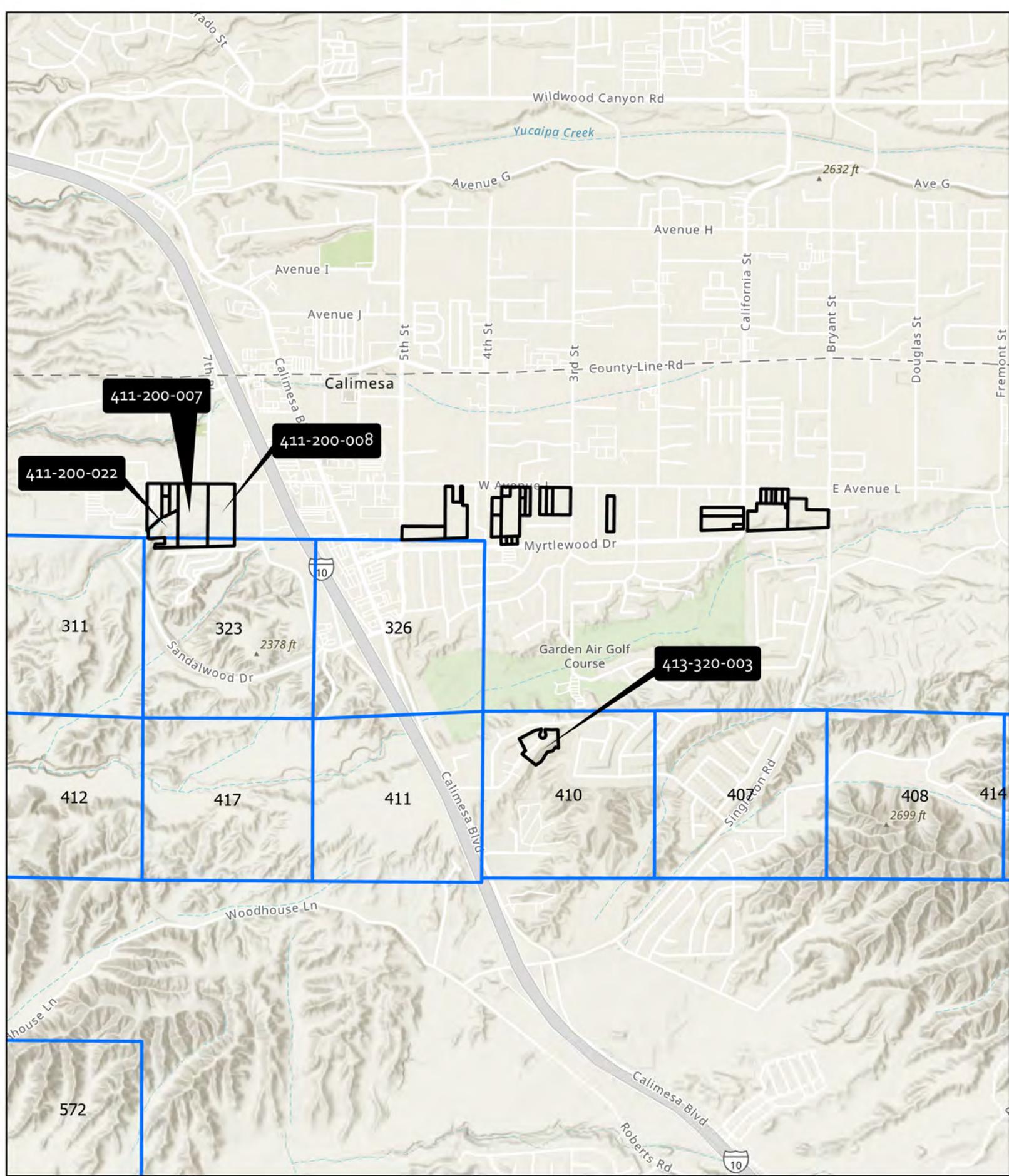


Figure 6- MSHCP Criteria Cells

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



not to scale

Attachment B

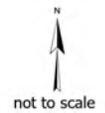
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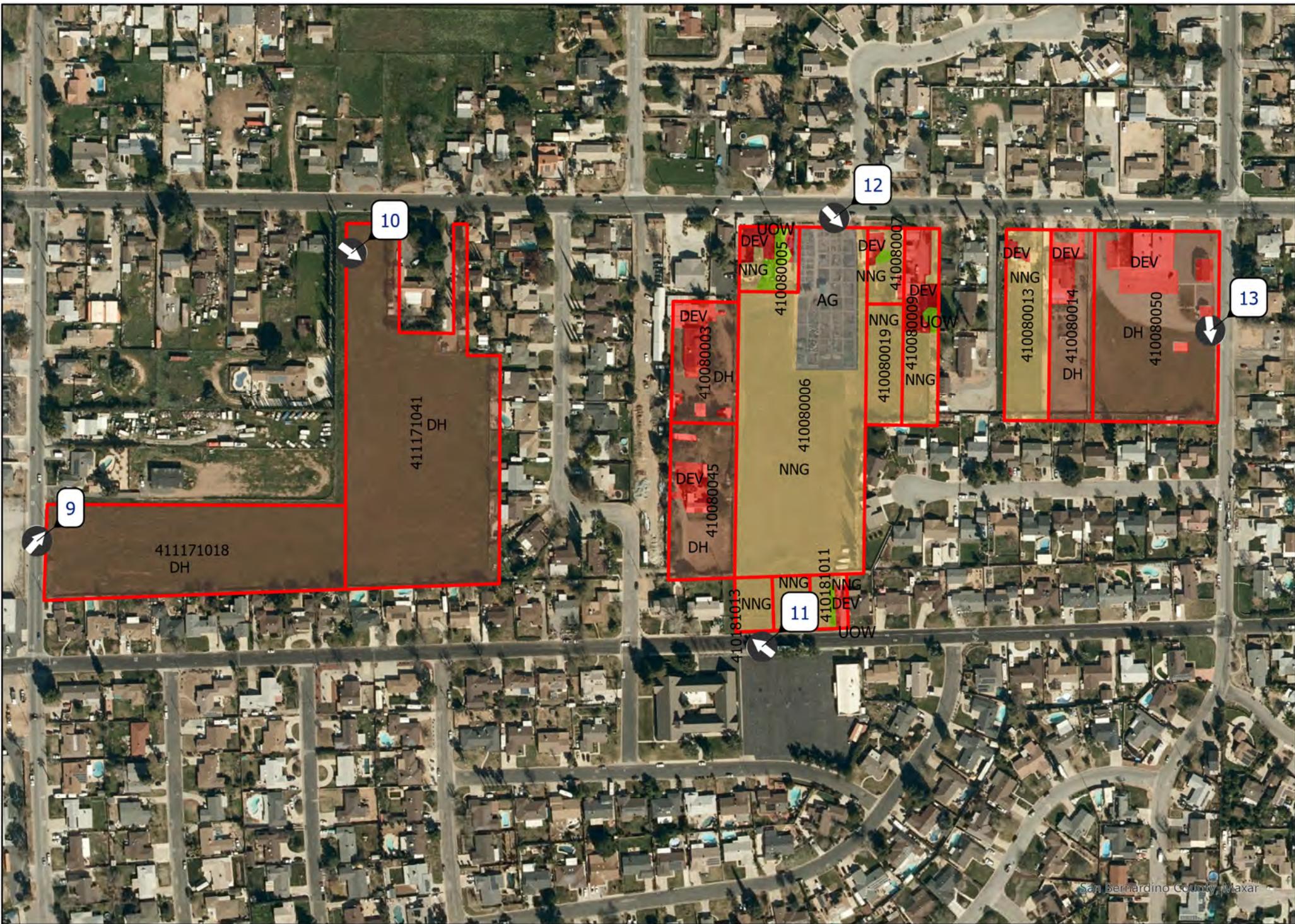




San Bernardino County, Malar

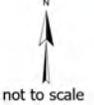
Attachment B- Photograph Map Index (Photographs: 1-8)
 Biological Resources Habitat Assessment Report and Constraints Analysis for the
 Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





San Bernardino County, Maxar

Attachment B- Photograph Map Index (Photographs: 9-13)
 Biological Resources Habitat Assessment Report and Constraints Analysis for the
 Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





San Bernardino County, Maxar

Attachment B- Photograph Map Index (Photographs: 14-16)

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California





San Bernardino County, Maxar

Attachment B- Photograph Map Index (Photographs: 17-18)

Biological Resources Habitat Assessment Report and Constraints Analysis for the Calimesa Zoning Overlay Program Project, City of Calimesa, Riverside County, California



Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-200-022

Notes: Drainage A

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 1



Facing Northwest

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-200-022

Notes: Oak Riparian Forest (ORF) and Disturbed Habitat (DH)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 2



Facing Southeast

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-200-003

Notes: Disturbed Habitat (DH) and Non-Native Grassland (NNG)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 3



Facing Southeast

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-200-022

Notes: Non-Native Grassland (NNG)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 4



Facing East

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-200-007

Notes: Disturbed Habitat (DH)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 5



Facing East

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-200-007

Notes: Disturbed Habitat (DH)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 6



Facing West

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-200-008

Notes: Disturbed Habitat (DH)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 7



Facing North

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-200-008

Notes: Undifferentiated Open Woodland (UOW)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 8



Facing East

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-171-018

Notes: Disturbed Habitat (DH)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 9



Facing Northeast

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 411-171-041

Notes: Disturbed Habitat (DH)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 10



Facing East

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 410-181-013

Notes: Non-Native Grassland (NNG)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 11



Facing Northwest

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 410-080-006

Notes: Agriculture (AG)/ Community Garden

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 12



Facing South

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 410-080-050

Notes: Disturbed Habitat (DH)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 13



Facing South

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 410-162-013

Notes: Undifferentiated Open Woodland (UOW) and Non-Native Grassland (NNG)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 14



Facing Northwest

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 410-170-007

Notes: Non-Native Grassland (NNG)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 15



Facing West

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 410-170-025

Notes: Disturbed Habitat (DH)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 16



Facing Southwest

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 413-320-003

Notes: Non-Native Grassland (NNG)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 17



Facing South

Osprey Environmental Associates

PHOTOGRAPHIC RECORD

APN: 413-320-003

Notes: Non-Native Grassland (NNG) and Coast Live Oak Woodland (OAK)

Photographer: Marshall Paymard

Date: April 25, 2021

Photo Number : 18



Facing Southeast