Appendix 5.4-1 Biological Resources Assessment

Appendices

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Biological Resources Assessment
for the
City of Wildomar General Plan Update

Riverside County, California

Prepared For:

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November 2023 (revised March 2024)

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
amsl	Above Mean Sea Level
BA	Biological Assessment
BCC	USFWS Bird of Conservation Concern
BO	Biological Opinion
BRA	Biological Resources Assessment
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations

Term	Definition
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ECORP	ECORP Consulting, Inc.
EFH	Essential Fish Habitat
EO	Executive Order
ESA	Endangered Species Act
FHWA	Federal Highway Administration
FMP	Fishery Management Plan
HANS	Habitat Evaluation and Acquisition Negotiation Process
HCP	Habitat Conservation Plan
I	Interstate
IA	Implementing Agreement
IPaC	Information for Planning and Conservation
ITP	Incidental Take Permit
MBTA	Migratory Bird Treaty Act
MSHCP	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High-Water Mark
PQP	Public Quasi-Public
RCA	Regional Conservation Authority
RCD	Resource Conservation District
RCHCA	Riverside County Habitat Conservation Agency
RCIP	Riverside County Integrative Project
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SKR	Stephens' kangaroo rat
SSC	California Species of Special Concern
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

On behalf of the City of Wildomar (City), ECORP Consulting, Inc. is providing this General Plan Update. The City of Wildomar (City) does not currently have its own General Plan; instead, it refers to the County of Riverside General Plan (Riverside County Integrative Project [RCIP] 2003a). This current General Plan will be the first City-specific update of the General Plan. The purpose of this General Plan is to provide information on the current biological resources within the City; evaluate the potential for special-status species and their habitats to occur within the City; assess potential biological-related constraints to future development; identify potential avoidance, minimization, and mitigation measures for the City's review; and provide this information within the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

1.1 City Location

The City is within the County of Riverside, south of Lake Elsinore and north of Murrieta (Figure 1). Riverside County is the fourth largest county in California encompassing approximately 7,300 square miles. The western half of the County is more populated than the eastern half; located in the western half of the County, the population of Wildomar was documented at 36,445 in 2019 and has been experiencing a steady incline since. The City is bisected by Interstate (I) 15, which runs northwest–southeast and is located just east of the Santa Ana Mountains and Elsinore Mountains. Due to its location at the foothill of these mountain ranges, the topography varies throughout the City. The City is depicted on the U.S. Geological Survey Wildomar, Murrieta, Romoland, and Lake Elsinore 7.5-minute topographic quadrangles. Elevations range from 2,324 to 1,566 feet above mean sea level (amsl) from west to east and 1,187 to 1,777 feet amsl from south to north.

1.2 Project Description

The City currently utilizes the Adopted Riverside County General Plan which was published in 2003 and has since undergone numerous amendments. Its latest full revision was in 2015 (Riverside County Planning Department 2015). A summary of amendments, pertaining primarily to land use designation, can be found at the Riverside County Planning Department website (Riverside County Planning Department 2021a). The 2015 revisions to the Riverside County General Plan included the development of Area Plans. The City of Wildomar is included within the Elsinore Area Plan (Riverside County Planning Department 2021b), and this document, along with the 2003 Riverside County General Plan and 2015 Riverside County General Plan Amendment, are the City's principal policy documents for future conservation and development.

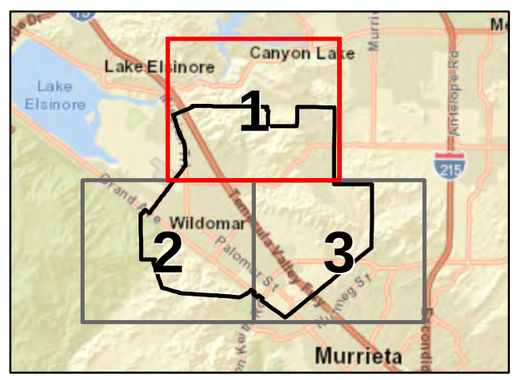
This document will be used for the City of Wildomar's Envision Wildomar 2040 and will serve as the first City-specific General Plan since the City was incorporated in 2008.

Map Features

City Limits

Riverside County, California
§17, 18, 19, 29, 30, 31, 32, 33 T06S R03W SBBM
§10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 32, 33, 34, 35, 36 T06S R04W SBBM
§5, 6, 7 T07S R03W SBBM
§1, 4 T07S R04W SBBM
La Laguna (Stearns), Temecula, and Santa Rosa (Morino) Land Grants
Latitude (NAD83): 33.614977°
Longitude (NAD83): -117.253996°

Murietta (1988, rev 1997, NAD27)
Romoland (1988, rev 1997, NAD27)
Wildomar (1953, rev 1979, NAD27)
Lake Elsinore (1953, rev 1979, NAD27)
CA 7.5-minute Topographic Quadrangle
US Geological Survey



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Map Date: 10/6/2023

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Scale in Feet
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Figure 1. Project Location and Vicinity
Sheet 1 of 3
2022-077 Wildomar General Plan Update

Map Features

City Limits

Riverside County, California
§17, 18, 19, 29, 30, 31, 32, 33 T06S R03W SBBM
§10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 32, 33, 34, 35, 36 T06S R04W SBBM
§5, 6, 7 T07S R03W SBBM
§1, 4 T07S R04W SBBM
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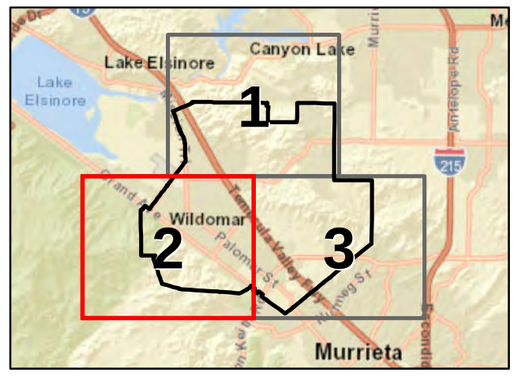
CA 7.5-minute Topographic Quadrangle
US Geological Survey



Map Date: 10/6/2023

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Figure 1. Project Location and Vicinity
Sheet 2 of 3
2022-077 Wildomar General Plan Update

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Map Features

City Limits

Riverside County, California
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§10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 32, 33, 34, 35, 36 T06S R04W SBBM
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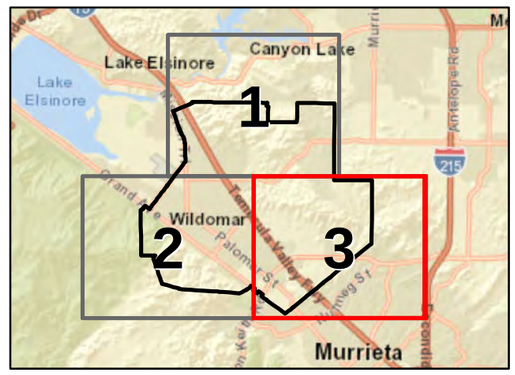

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Map Date: 10/6/2023

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Scale in Feet
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Figure 1. Project Location and Vicinity
Sheet 3 of 3
2022-077 Wildomar General Plan Update

1.3 Purpose of this General Plan Update

To better guide development in the City, the Wildomar General Plan strategy is to identify existing and future biological resources in the City and ensure compliance with applicable laws before these resources are altered or impacted. This document summarizes the existing biological resources that will serve as the basis for development of the comprehensive General Plan and associated Programmatic Environmental Impact Report.

1.4 MSHCP Context

The City of Wildomar is located within the Western Riverside County MSHCP. The MSHCP provides information on plant and wildlife species of concern and their associated habitats to the County of Riverside (Planning Species) and outlines goals for their conservation while addressing the requirements of the state and federal Endangered Species Acts. Information on the MSHCP can be found at www.rctlma.org (Riverside County Land Management Agency 2023).

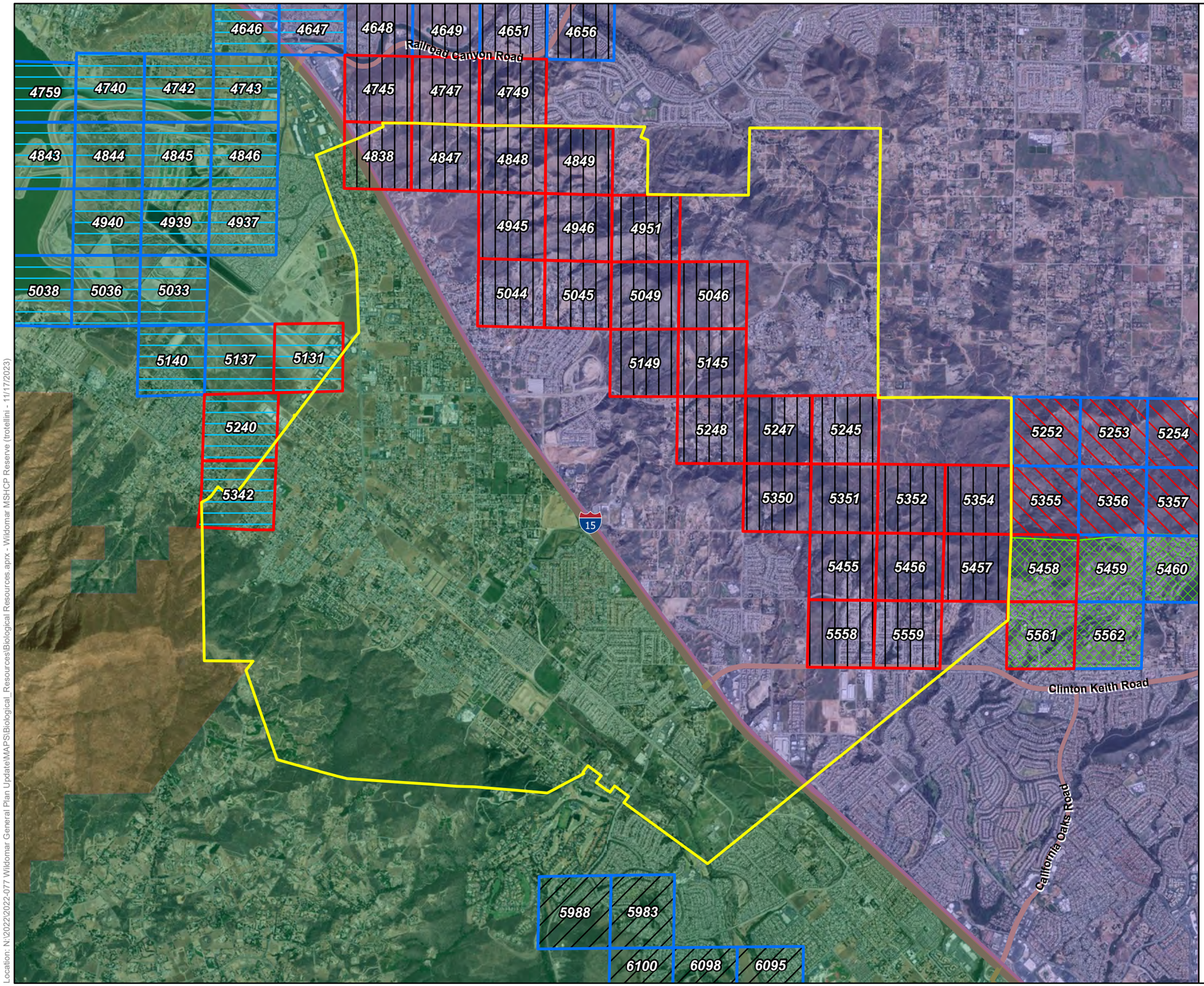
To guide the City and its residents on navigating the MSHCP, flow charts depicting the steps to development within the context of the MSHCP are provided in Appendix A. These flowcharts help guide development by providing an overview of and recommendations for: development applications; special-status plant and wildlife species; riparian/riverine habitat and sensitive natural communities; wildlife corridors and movement; and covered roads.

Generally, any entity looking to construct a project first needs to determine if their property is located within a Criteria Cell. This will influence what permits or additional applications an entity may need to complete. As required by Regional Conservation Authority (RCA) Board Resolution No. 06-05, permit applicants are responsible for the costs of a Joint Project Review and an initial deposit is required with the submittal of the application. Costs and expenditures incurred during the process will be billed against the deposit amount. The applicant will be billed any difference should the costs exceed the initial deposit amount. The applicant will be refunded any difference should the costs be less than the initial deposit amount. MSHCP Fees are adjusted annually using the Consumer Price Index. A copy of the 2024 Fiscal Year Fee Schedule is provided in Appendix B. The latest MSHCP Fee Schedule can be located at https://www.wrc-rca.org/development-applications/permits-and-fees/.

Section 7 of the MSHCP outlines covered activities and allowable uses as they pertain to Conserved Lands, Criteria Areas, and Public/Quasi-Public (PQP) Lands. Each of these, in the context of the City, will be described below.

1.4.1 Conserved Lands and Criteria Cells

The City overlaps with all or portions of the following Criteria Cells: 5342, 5240, 5131, 4838, 4847, 4848, 4849, 4745, 4747, 4749, 4945, 4946, 4951, 5044, 5045, 5049, 5046, 5149, 5145, 5248, 5247, 5245, 5350, 5351, 5352, 5354, 5455, 5456, 5457, 5558, 5559, 5458, and 5561. The locations of the Criteria Cells are depicted on Figure 2A.



Map Contents

City Limits

WRMSHCP Reserve Assembly

Wildomar WRMSHCP Criteria Cells

WRMSHCP Criteria Cells

Area Plan Subunits - Within City Limits

SU3 - Elsinore

SU4 - Sedco Hills

Area Plan Subunits - Outside City Limits

SU1 - Murrieta Creek

SU2 - Lower Sedco Hills

SU5 - French Valley/Lower Sedco Hills

Habitat Management Units

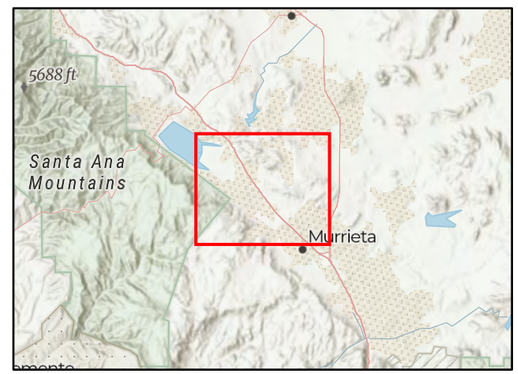
Forest Service Trabuco

Menifee

Santa Ana Mountains

Sources: ESRI, Placeworks, RCIT

Other Related Info if Needed



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Map Date: 11/17/2023

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Figure 2A. MSHCP Reserve Assembly

2022-077 Wildomar General Plan Update

Covered activities within the Criteria Area are discussed in Section 7.3 of the MSHCP. Covered activities include:

- Public and private development consistent with MSHCP Criteria (MSHCP Section 7.3.1)
- Single-family homes on existing parcels within the Criteria Area (MSHCP Section 7.3.2)
- Agricultural Lands within the Criteria Area (MSHCP Section 7.3.3)
- Existing roads within the Criteria Area (MSHCP Section 7.3.4); for additional information on covered road maintenance activities within the Criteria Area, please reference MSHCP, Section 7.3.4.
- Planned roads within the Criteria Area (MSHCP Section 7.3.5)
- State Park facilities (MSHCP Section 7.3.6)
- Flood control facilities (MSHCP Section 7.3.7)
- Waste management facilities (MSHCP Section 7.3.8)
- Future facilities necessary to support planned development including water/wastewater facilities, electrical utility facilities, and natural gas facilities (MSHCP Section 7.3.9)

1.4.2 Public/Quasi-Public Lands

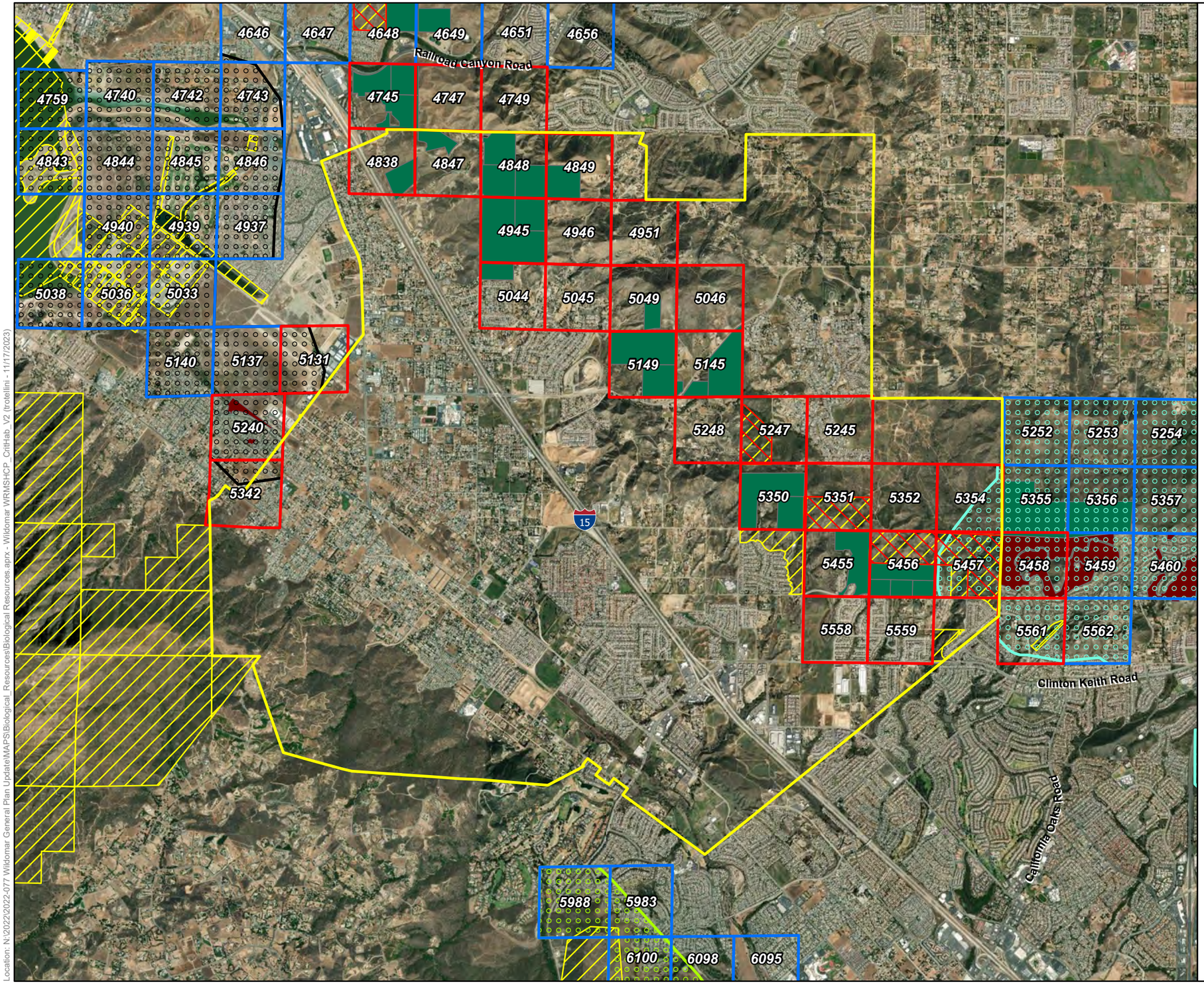
PQP Lands exist within the eastern portion of the City. These are listed in Table 1.

According to Section 7.2 of the MSHCP, covered activities within existing PQP Lands include:

- Existing roadways such as interstates, freeways, State highways, city and county-maintained roads, and local roads not city or county maintained that provide property access; for additional information on covered road maintenance activities within PQP Lands, please reference MSHCP, Section 7.2.1.
- Planned roads within existing PQP Lands (MSHCP Section 7.2.2)
- Future facilities including water, sewer, electrical, gas and solid waste facilities (MSHCP Section 7.2.4)
- Maintenance of other existing facilities (MSHCP Section 7.2.5)
- Existing Agricultural Uses (Section MSHCP 7.2.6)

1.4.3 MSHCP Conserved Lands

There are currently 842 acres of MSHCP Conserved Lands throughout the MSHCP Plan Area. Conserved Lands are located throughout the City and depicted in Figure 2B.



Map Contents

- City Limits
- Wildomar WRMSHCP Criteria Cells
- WRMSHCP Criteria Cells

Critical Habitat

- Coastal California gnatcatcher

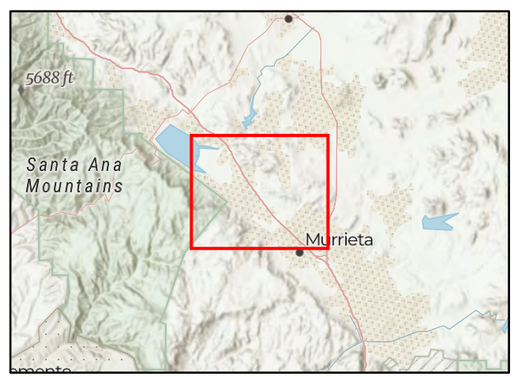
Western Riverside MSHCP Conserved Lands

- Public Quasi-Public (PQP) Conserved Lands
- MSHCP Conserved Lands
- MSHCP Easements

Western Riverside MSHCP Criteria Area Species Areas

- San jacinto valley crownscale (*Atriplex coronata* var. *notatior*), Parish's saltbush (*Atriplex parishii*), Davidson's saltbush (*Atriplex serenana* var. *davidsonii*), Thread leaved brodiaea (*Brodiaea filifolia*), Round leaved filaree (*Erodium macrophyllum*), Smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Little mouse tail (*Myosurus minimus*) Area
- Davidson's saltbush (*Atriplex serenana* var. *davidsonii*), Parish's saltbush (*Atriplex parishii*), Thread leaved brodiaea (*Brodiaea filifolia*), Smooth tarplant (*Centromadia pungens* ssp. *laevis*), Round leaved filaree (*Erodium macrophyllum*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Little mouse tail (*Myosurus minimus*) Area
- Davidson's saltbush (*Atriplex serenana* var. *davidsonii*), Parish's saltbush (*Atriplex parishii*), Round leaved filaree (*Erodium macrophyllum*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) Santa ana pitchersage (*Lepechinia cardiophylla*), Prostrate navarretia (*Navarretia prostrata*) Area

Sources: ESRI, Placeworks, RCIT, USFWS
Other Related Info if Needed



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Map Date: 11/17/2023

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Figure 2B. MSHCP Criteria Area Species, Critical Habitat, and Conserved Lands

2022-077 Wildomar General Plan Update

According to Section 7.4 of the MSHCP, the following uses are considered allowable uses within the MSHCP Conservation Area:

- Reserve management, monitoring, and scientific research activities (MSHCP Section 7.4.1)
- Emergency, safety, and police services (MSHCP Section 7.4.1)
- Emergency repairs (MSHCP Section 7.4.1)
- Conditionally compatible uses such as public access and recreation (MSHCP Section 7.4.2)

1.4.4 Covered Roads

The City includes numerous Covered Roads according to the MSHCP. These include Major, Arterial, Secondary, Collector, and Urban Arterial roads (Figure 2C). These are summarized in Table 1.

1.4.5 Wildlife Crossings

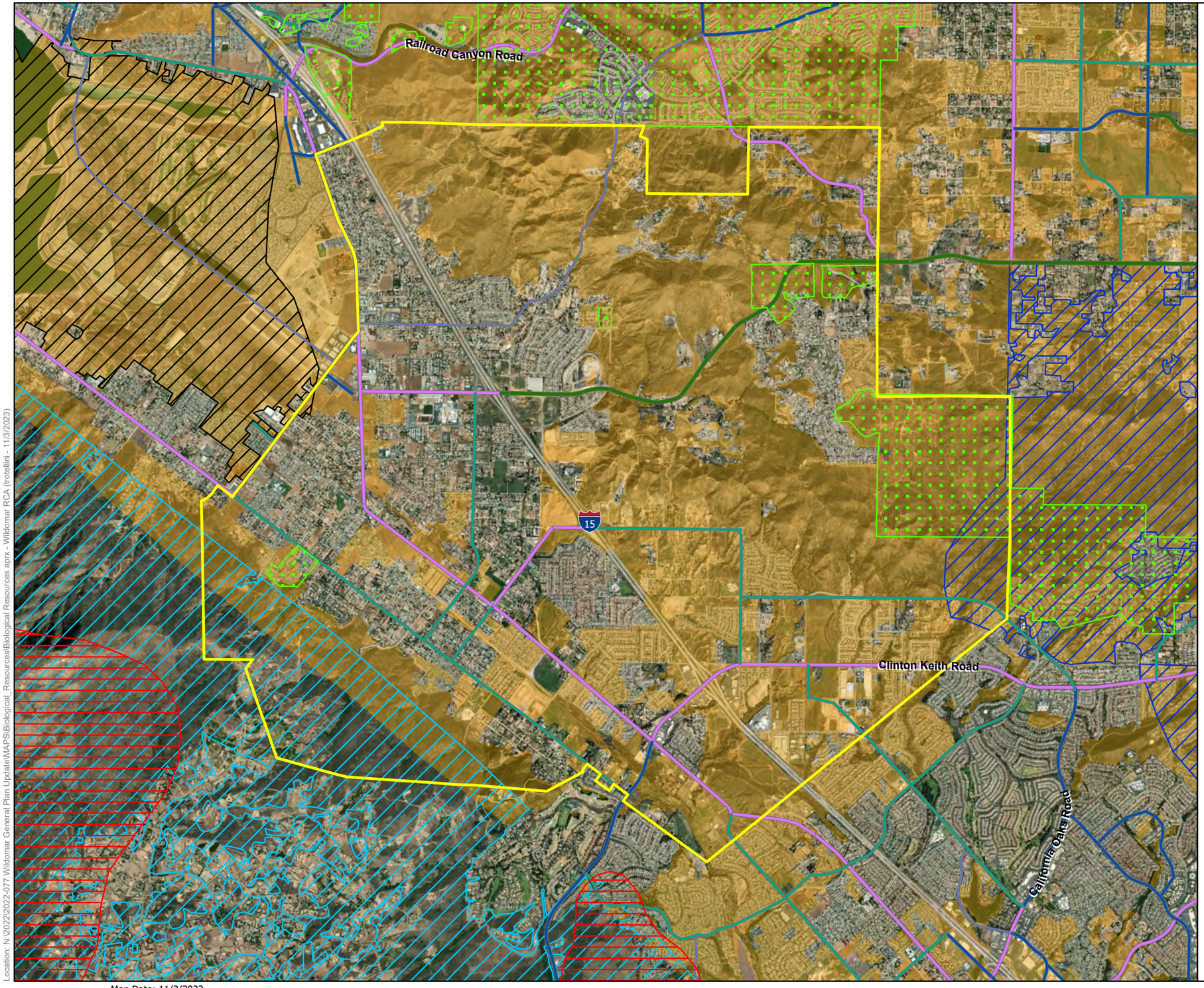
As it pertains to wildlife crossings within the Criteria Area and PQP Lands, Section 7.5.2 of the MSHCP outlines guidelines for the construction of wildlife crossings for various wildlife species.

1.5 Reserve Assembly Analysis

The City is located in the Elsinore Area Plan and within Subunit 3- Elsinore and Subunit 4- Sedco Hills. The City is also adjacent to Subunit 1- Murrieta Creek, Subunit 2- Lower Sedco Hills, and Subunit 5- French Valley/Lower Sedco Hills. The City is within the Santa Ana Mountains and Menifee Habitat Management Units and adjacent to the Forest Service Trabuco Habitat Management Unit.

The City is within Species Survey Areas for Narrow Endemic Plants, Criteria Area Species, and Burrowing Owl. The City is within the Criteria Area Species Survey Area for San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex sernana* var. *davidsonii*), thread-leaved brodiaea (*Brodiaea filifolia*), round-leaved filaree (*California macrophylla*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), little mousetail (*Myosurus minimus* ssp. *apus*), and mud nama (*Nama stenocarpa*). The City is within the Narrow Endemic Plants Survey Area for Munz' onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). Table 1 contains acreage summaries for each Criteria Cell.

The City is adjacent to the Cleveland National Forest of which portions of this area are PQP lands. Table 1 summarizes information related to Criteria Cells, Covered Roads, PQP Lands, and Additional Reserve Lands within the City according to Criteria Cell Number.



Map Contents

City Limits

RCA Information

Stephens' kangaroo rat Habitat

Burrowing Owl Survey Area

Amphibian Survey Areas

California Red-legged Frog

Narrow Endemic Plant Survey Areas

Many-stemmed dudleya, California Orcutt grass, Spreading navarretia, San Miguel savory, Hammitt's clay-cress, Wright's trichocoronis

Munz's onion, San Diego ambrosia, Many-stemmed dudleya, Spreading navarretia, California Orcutt grass, Wright's trichocoronis

Munz's onion, San Diego ambrosia, Many-stemmed dudleya, spreading navarretia, California orcutt grass, Hammitt's clay-cress, Wright's trichocoronis

MSHCP Covered Roads

Urban Arterial

Arterial

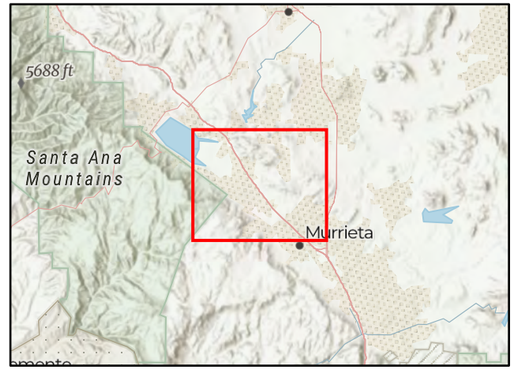
Major

Secondary

Collector

Sources: ESRI, Placeworks, RCIT

Other Related Info if Needed



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Map Date: 11/3/2023

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Figure 2C. RCA Information

2022-077 Wildomar General Plan Update

Table 1. Criteria Cell Reserve Assembly Analysis Acreages

Criterial Cell Number	Criteria Cell Size Total (acres)	Criteria Cell Size within the City (acres)	Subunit	Covered Roads and Type (acres)	PQP Lands (acres)*	Additional Reserve Lands within City (acres)*
4745	159.50	0.02	Sedco Hills	–	–	–
4747	159.83	0.08	Sedco Hills	–	–	Archer, Timothy, & Marlene = 0.06
4749	160.73	0.53	Sedco Hills	–	–	Archer = 0.01
4838	159.66	140.96	Sedco Hills	Casino Dr (Major) = 0.03 Malaga Rd (Major) = 0.33	–	Patterson, Kenneth, & Patricia = 25.86
4847	159.70	159.22	Sedco Hills	–	–	Archer, Timothy, & Marlene = 21.11 Patterson, Kenneth, & Patricia = 2.12
4848	159.19	158.85	Sedco Hills	–	–	Archer = 37.07 Nelson, Jack = 37.78 Tet Sedco Hills Conservation Bank = 39.38
4849	158.93	158.93	Sedco Hills	Lost Rd (Collector) = 2.29	–	Nelson, Jack = 41.81
4945	158.28	158.28	Sedco Hills	–	–	Nelson, Jack = 37.63 Tet Sedco Hills Conservation bank = 118.73
4946	158.02	158.02	Sedco Hills	Lost Rd (Connector) = 4.73 Lost Rd (Secondary) = 0.31	–	Nelson, Jack = 1.75 Tet Sedco Hills Conservation Bank = 1.42
4951	161.24	161.24	Sedco Hills	–	–	
5044	159.46	159.46	Sedco Hills	Lemon St (Collector) = 3.54 Lost Rd (Collector) = 0.97	–	Tet Sedco Hills Conservation Bank = 21.53

Table 1. Criteria Cell Reserve Assembly Analysis Acreages

Criterial Cell Number	Criteria Cell Size Total (acres)	Criteria Cell Size within the City (acres)	Subunit	Covered Roads and Type (acres)	PQP Lands (acres)*	Additional Reserve Lands within City (acres)*
5045	159.09	159.09	Sedco Hills	Lost Rd (Collector) = 3.42 Lost Rd (Secondary) = 0.04	–	Tet Sedco Hills Conservation Bank = 0.02
5046	162.29	162.29	Sedco Hills	Bundy Canyon Rd (Urban Arterial) = 1.88	–	Casa Modelo = 1.20
5049	162.37	162.37	Sedco Hills	–	–	Hunter = 18.97
5131	167.14	19.72	Elsinore	Corydon St (Arterial) = 2.67 Garden St (Major) = 2.19	–	–
5145	162.46	162.46	Sedco Hills	Bundy Canyon Rd (Urban Arterial) = 11.87	–	Casa Modelo = 68.94 Clark = 3.97 Katz, William = 12.24 Rullo = 0.61
5149	162.66	162.66	Sedco Hills	Bundy Canyon Rd (Urban Arterial) = 2.47	–	Clark = 40.23 Hunter = 0.21 Rullo = 79.82
5240	176.07	5.33	Elsinore	Corydon St (Arterial) = 1.36 Palomar St (Secondary) = 0.00	–	–
5245	163.53	163.43	Sedco Hills	–	–	–
5247	161.53	161.53	Sedco Hills	–	USA 362 = 52.05	–

Table 1. Criteria Cell Reserve Assembly Analysis Acreages

Criterial Cell Number	Criteria Cell Size Total (acres)	Criteria Cell Size within the City (acres)	Subunit	Covered Roads and Type (acres)	PQP Lands (acres)*	Additional Reserve Lands within City (acres)*
5248	162.18	162.18	Sedco Hills	Bundy Canyon Rd (Urban Arterial) = 0.70	USA 362 = 1.38	Casa Modelo = 1.26 Clark = 0.03 Katz, William = 0.56
5342	179.66	121.08	Elsinore	Corydon St (Arterial) = 2.65 Grand Ave (Arterial) = 0.38	–	–
5350	162.01	162.01	Sedco Hills	–	USA 362 and Riv Co Parks & OS = 3.96	Borchard = 32.07 Borchard, Tr = 76.34
5351	163.63	163.63	Sedco Hills	–	USA 362 = 78.94	Schleuniger = 0.93
5352	163.91	163.91	Sedco Hills	–	USA 362 = 0.40	–
5354	164.32	162.74	Sedco Hills	—		Evandel– Bergstein = 0.02
5455	160.60	160.60	Sedco Hills	La Estrella St (Secondary) = 5.72	USA 362 = 0.96	Delgado Phase 1 = 0.52 Delgado Phase 4 = 0.53 Schleuniger = 57.60
5456	160.24	160.24	Sedco Hills	La Estrella St (Secondary) = 5.28	USA 362 = 78.34	Delgado (Phase 2) = 13.17 Delgado Phase 1 = 39.32 Delgado Phase 3 = 13.29 Delgado Phase 4 = 12.89

Table 1. Criteria Cell Reserve Assembly Analysis Acreages

Criterial Cell Number	Criteria Cell Size Total (acres)	Criteria Cell Size within the City (acres)	Subunit	Covered Roads and Type (acres)	PQP Lands (acres)*	Additional Reserve Lands within City (acres)*
5457	158.77	158.77	Sedco Hills	La Estrella St (Secondary) = 2.35	RCA and USA 362 = 133.58	Evandel – Bergstein = 0.00
5458	161.41	0.77	French Valley/ Lower Sedco Hills	–	RCA and USA 362 = 0.73	Lennar Greer Ranch = 0.03 Evandel– Begstein = 0.00
5558	159.52	159.52	Sedco Hills	Clinton Keith Rd (Arterial) = 6.32 La Estrella St (Secondary) = 0.42	–	Schleuniger = 0.10
5559	160.13	160.13	Sedco Hills	Clinton Keith Rd (Arterial) = 6.80 La Estrella St (Secondary) = 0.76	RCA = 0.03	–
5561	162.51	0.58	French Valley/ Lower Sedco Hills	La Estrella Rd (Secondary) = 0.00 La Estrella St (Secondary) = 0.07	Team RCD and RCA = 0.35	–

Note: This information is current as of October 3, 2023. Acreages are subject to change based on coordination with RCA. Coordination with RCA is recommended for exact acreages.

RCA = Regional Conservation Authority; RCD = Resource Conservation District

*Taken from the MSHCP Geographic Information Systems data; names and/or acronyms were not always defined – provided as "Project Names."

1.5.1 Conservation Goals of Area Plans within and adjacent to the City

1.5.1.1 Elsinore Area Plan

Conservation goals of the Elsinore Area Plan that pertain to the City include preserving core areas and linkages as well as sensitive plant and wildlife species and their habitat. The target conservation acreage range for this Area Plan is 66,500 to 73,315 acres. This includes approximately 54,800 acres of existing PQP Lands and 11,700 to 18,515 acres of Additional Reserve Lands (RCIP 2003b).

Subunit 3 — Elsinore

The target acreage range for Additional Reserve Lands within the Elsinore subunit is 925 to 1,815 acres. Species of conservation focus within this subunit are American bittern (*Botaurus lentiginosus*), Bell's sage sparrow (*Artemisiospiza belli*), black-crowned night heron (*Nycticorax nycticorax*), double-crested cormorant (*Phalacrocorax auritus*), least Bell's vireo (*Vireo bellii pusillus*), loggerhead shrike (*Lanius ludovicianus*), mountain plover (*Charadrius montanus*), northern harrier (*Circus cyaneus*), osprey (*Pandion haliaetus*), southwestern willow flycatcher (*Empidonax traillii extimus*), white-faced ibis (*Plegadis chihi*), white-tailed kite (*Elanus leucurus*), Quino checkerspot butterfly (*Euphydryas Editha quino*), Riverside fairy shrimp (*Streptocephalus woottoni*), bobcat (*Lynx rufus*), western pond turtle (*Actinemys marmorata*), Munz's onion, San Diego ambrosia, and smooth tarplant. Biological issues and considerations from the MSHCP are:

- Conserve wetlands including Temescal Wash, Collier Marsh, Alberhill Creek, Lake Elsinore, and the floodplain east of Lake Elsinore (including marsh habitats) and maintain water quality.
- Conserve clay soils that support Munz's onion.
- Conserve Travers-Willow-Domino soil series.
- Conserve foraging habitat for raptors, providing a sage scrub-grassland ecotone.
- Conserve grassland habitat for mountain plover.
- Conserve breeding habitat for northern harrier.
- Maintain linkage areas for bobcat.
- Conserve San Diego ambrosia at Alberhill and Nichols Road or finding new populations that would allow for the loss of known populations.
- Maintain core and linkage habitats for western pond turtle.
- Maintain core areas for Riverside fairy shrimp.
- Maintain opportunities for core and linkage habitat for Quino checkerspot butterfly.

Subunit 4 — Sedco Hills

The target acreage range for Additional Reserve Lands within the Sedco Hills subunit is 2,415 to 3,845 acres. Species of conservation focus within this subunit are Bell's sage sparrow, coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo, southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), southwestern willow flycatcher, Quino checkerspot butterfly, bobcat, Stephens' kangaroo rat (*Dipodomys stephensi*), and western pond turtle. Biological issues and considerations from the MSHCP are:

- Provide a northwest-southeast connection between Estelle Mountain and Sedco Hills for sage scrub species including coastal California gnatcatcher.
- Conserve habitat in Sedco Hills to maintain the connection between Granite Hills and Bundy Canyon Road.
- Conserve wetlands in lower San Jacinto River.
- Provide upland linkage connections for Sedco Hills to Wildomar.
- Conserve foraging habitat for raptors, providing a sage scrub-grassland ecotone.
- Maintain core and linkage habitat for bobcat and Stephens' kangaroo rat.
- Maintain linkage areas for western pond turtle.
- Maintain opportunities for linkage areas for Quino checkerspot butterfly.

1.5.1.2 Southwest Area Plan

Conservation goals of the Southwest Area Plan that pertain to the City include preserving core areas and linkages as well as sensitive plant and wildlife species and their habitat (RCIP 2003c). The target conservation acreage range for this Area Plan is 58,295 to 72,155 acres. This includes approximately 35,795 acres of existing PQP Lands and 22,500 to 36,360 acres of Additional Reserve Lands. Criteria Cells within this Area Plan are adjacent to the City and are included in conservation considerations for Criteria Cells within the City, hence their discussion and inclusion here.

Subunit 5 — French Valley/Lower Sedco Hills

The target acreage range for Additional Reserve Lands within this subunit is 4,630 to 7,395 acres. Species of conservation focus within this subunit are Bell's sage sparrow, California horned lark, coastal California gnatcatcher, Swainson's hawk (*Buteo swainsoni*), grasshopper sparrow, southern California rufous-crowned sparrow, Quino checkerspot butterfly, bobcat, Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), western pond turtle, long-spined spine flower (*Chorizanthe polygonoides* var. *longispina*), Munz's onion, Palmer's grapplinghook (*Harpagonella palmeri*). Biological issues and considerations from the MSHCP are:

- Conserve large blocks of habitat east of I-215 and south of Scott Road for narrow endemic species.

- Provide connection to the Southwestern Riverside County Multi Species Reserve.
- Conserve clay soils supporting long-spined spine flower, Munz's onion, and Palmer's grapplinghook.
- Maintain core and linkage habitat for bobcat and Quino checkerspot butterfly.
- Determine presence of potential core areas for Los Angeles pocket mouse along Warm Springs Creek.
- Maintain core areas for western pond turtle and Riverside fairy shrimp.

1.5.2 Conservation within Criteria Cells

Table 2 summarizes the conservation criteria within Criteria Cells within the City and as outlined in the MSHCP.

Table 2. Conservation within Criteria Cells

Criterial Cell Number	Conservation Criteria
4745	Conservation within this cell will contribute to the assembly of Proposed Linkage 8. Conservation within this cell will focus on riparian scrub, woodland, and forest habitat associated with the San Jacinto River and adjacent coastal sage scrub and chaparral habitat. Areas conserved within this cell will be connected to coastal sage scrub, riparian scrub, woodland, and forest habitat proposed for conservation in cell 4648 to the north and to coastal sage scrub and chaparral habitat proposed for conservation in cell 4838 to the south and in Cell Group F' to the east. Conservation within this cell will range from 70% to 80% of the cell focusing in the northern and eastern portions of the cell.
4747	Conservation within this Cell Group will contribute to the assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, and grassland habitat. Areas conserved within this Cell Group will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell Group D' to the north, in cell 4745 and 4838 both to the west, and in Cell Groups E' and G' both to the east. Conservation within this Cell Group will range from 70% to 80% of the Cell Group focusing in the northern portion of the Cell Group.
4749	Conservation within this cell will contribute to the assembly of Proposed Linkage 8. Conservation within this cell will focus on riparian scrub, woodland, and forest habitat associated with the San Jacinto River and adjacent coastal sage scrub and chaparral habitat. Areas conserved within this Cell Group will be connected o chaparral, coastal sage scrub, riparian scrub, woodland and forest habitat proposed for conservation in Cell Group D' to the west and cell 4559 to the east, to chaparral and coastal sage scrub habitat proposed for conservation in Cell Group G' to the south, and to chaparral, coastal sage scrub, and grassland habitat proposed for conservation in Cell Group F' to the west and in cell 4656 to the east. Conservation within this cell group will range from 60% to 70% of the Cell Group focusing in the southern and eastern portions of the Cell Group.

Table 2. Conservation within Criteria Cells

Criterial Cell Number	Conservation Criteria
4838	Conservation within this cell will contribute to the assembly of Proposed Linkage 8. Conservation within this cell will focus on chaparral and coastal sage scrub habitat. Areas conserved will be connected to chaparral and coastal sage scrub habitat proposed for conservation in cell 4745 to the north and in Cell Group F' to the east. Conservation within this cell will range from 15% to 25% of the cell focusing in the northeastern portion of the cell.
4847	Conservation within this Cell Group will contribute to the assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, and grassland habitat. Areas conserved within this Cell Group will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell Group D' to the north, in cell 4745 and 4838 both to the west, and in Cell Groups E' and G' both to the east. Conservation within this Cell Group will range from 70% to 80% of the Cell Group focusing in the northern portion of the Cell Group.
4848, 4945, 5044	Conservation within this Cell Group will contribute to the assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on chaparral and coastal sage scrub habitat. Areas conserved within this Cell Group will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell Groups F' to the west, E' to the north, and H' to the east. Conservation within this Cell Group will range from 65% to 75% of the Cell Group, focusing in the northern portion of the Cell Group.
4849, 4946, 5045	Conservation within this Cell Group will contribute to the assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on chaparral and coastal sage scrub habitat. Areas conserved within this Cell Group will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell Groups G' to the west and I' to the east. Conservation within this Cell Group will range from 60% to 70% of the Cell Group focusing in the northern portion of the Cell Group.
4951, 5049	Conservation within this Cell Group will contribute to the assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on chaparral and coastal sage scrub habitat. Areas conserved within this Cell Group will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell Group H' to the west and to chaparral habitat proposed for conservation in cell #5149 to the south and in Cell Group J' to the east. Conservation within this Cell Group will range from 50% to 60% of the Cell Group focusing in the southern portion of the Cell Group.

Table 2. Conservation within Criteria Cells

Criterial Cell Number	Conservation Criteria
5046, 5145, 5248	Conservation within this Cell Group will contribute to the assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, grassland, woodland, and forest habitat. Areas conserved within this Cell Group will be connected to chaparral habitat proposed for conservation in the Cell Group and in cell #5149 both to the west and to chaparral, woodland and forest habitat proposed for conservation in Cell Group K' to the east. Conservation within this Cell Group will range from 50% to 60% of the Cell Group focusing in the northern portion of the Cell Group.
5131	Conservation within this cell will contribute to assembly of Proposed Extension of Existing Core 3. Conservation within this cell will focus on grassland habitat. Areas conserved within this cell will be connected to grassland habitat proposed for conservation in cell #5137 to the west. Conservation within this cell will range from 30% to 40% of the cell focusing in the southwestern portion of the cell.
5149	Conservation within this cell will contribute to assembly of Proposed Linkage 8. Conservation within this cell will focus on chaparral, woodland, and forest habitat. Areas conserved within this cell will be connected to chaparral habitat proposed for conservation in Cell Groups I' to the north and J' to the east. Conservation within this cell will range from 70% to 80% of the cell focusing in the northern and eastern portions of the cell.
5240	Conservation within this cell will contribute to assembly of Proposed Extension of Existing Core 3. Conservation within this cell will focus on grassland and coastal sage scrub habitat. Areas conserved within this cell will be connected to grassland habitat proposed for conservation in cell #5137 to the north and to coastal sage scrub habitat proposed for conservation in cell #5342 to the south. Conservation within this cell will range from 45% to 55% of the cell focusing in the northern and central portions of the cell.
5245	Conservation within this Cell Group will contribute to assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, grassland, woodland, and forest habitat. Areas conserved within this Cell Group will be connected to chaparral, coastal sage scrub, woodland, and forest habitat proposed for conservation in Cell Group J' to the west and to coastal sage scrub habitat proposed for conservation in Cell Group L' to the south and in cell #5352 to the east. Conservation within this Cell Group will range from 40% to 50% of the Cell Group focusing in the southwestern portion of the Cell Group.
5247, 5350, 5351	No conservation criteria listed.
5342	Conservation within this cell will contribute to assembly of Proposed Extension of Existing Core 3. Conservation within this cell will focus on coastal sage scrub habitat. Areas conserved within this cell will be connected to coastal sage scrub habitat proposed for conservation in cell #5240 to the north. Conservation within this cell will range from 5% to 15% of the cell focusing in the northern central portion of the cell.

Table 2. Conservation within Criteria Cells

Criterial Cell Number	Conservation Criteria
5352	Conservation within this cell will contribute to assembly of Proposed Linkage 8. Conservation within this cell will focus on coastal sage scrub, riparian scrub, woodland, and forest habitat. Areas conserved within this cell will be connected to coastal sage scrub habitat proposed for conservation in cell #5354 to the east and to existing Public/Quasi-Public lands in Cell Group K' to the west and in cell #5456 to the south. Conservation within this cell will range from 45% to 55% of the cell focusing in the southern portion of the cell.
5354	Conservation within this cell will contribute to assembly of Proposed Linkage 8. Conservation within this cell will focus on coastal sage scrub, riparian scrub, woodland, and forest habitat. Areas conserved within this cell will be connected to coastal sage scrub, riparian scrub, woodland and forest habitat proposed for conservation in cell #5352 to the west, to existing Public/Quasi-Public lands in cell#5457 to the south and to chaparral, coastal sage scrub, woodland and forest habitat proposed for conservation in Cell Group C in the Sun City/Menifee Area Plan to the east. Conservation within this cell will range from 40% to 50% of the cell focusing in the southern portion of the cell.
5456	Conservation within this cell will contribute to assembly of Proposed Linkage 8. Conservation within this cell will focus on coastal sage scrub habitat. Areas conserved within this cell will be connected to coastal sage scrub habitat proposed for conservation in Cell Group L' to the west and in Cell #5457 to the east and to grassland habitat proposed for conservation in cell #5559 to the south. Conservation within this cell will range from 45% to 55% of the cell focusing in the southern portion of the cell.
5457	Conservation within this cell will contribute to assembly of Proposed Linkage 8. Conservation within this cell will focus on coastal sage scrub, riparian scrub, woodland, and forest habitat. Areas conserved within this cell will be connected to coastal sage scrub habitat proposed for conservation in cell #5456 to the west. Conservation within this cell will range from 20% to 30% of the cell focusing in the southwestern portion of the cell.
5458, 5561	Conservation within this Cell Group will contribute to assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on coastal sage scrub and grassland habitat. Areas conserved within this Cell Group will be connected to coastal sage scrub habitat proposed for conservation in Cell Group I' to the east and in Cell Group C in the Sun City/Menifee Area Plan to the north, and to existing Public/Quasi-Public land in cell #5457 in the Elsinore Area Plan to the west. Conservation within this Cell Group will range from 55% to 65% of the Cell Group focusing in the northern portion of the Cell Group.

Table 2. Conservation within Criteria Cells	
Criterial Cell Number	**Conservation Criteria**
5455, 5558	Conservation within this Cell Group will contribute to assembly of Proposed Linkage 8. Conservation within this Cell Group will focus on coastal sage scrub, grassland, riparian scrub, woodland, and forest habitat. Areas conserved within this Cell Group will be connected to coastal sage scrub and grassland habitat proposed for conservation in cell #5558 to the east, to coastal sage scrub habitat proposed for conservation in cell #5456 also to the east and to existing Public/Quasi-Public lands in Cell Group K' to the north. Conservation within this Cell Group will range from 60% to 70% of the Cell Group focusing in the northeastern portion of the Cell Group.
5559	Conservation within this cell will contribute to assembly of Proposed Linkage 8. Conservation within this cell will focus on coastal sage scrub and grassland habitat. Areas conserved within this cell will be connected to coastal sage scrub habitat proposed for conservation in cell #5456 to the north and to grassland, coastal sage scrub, riparian scrub, woodland, and forest habitat proposed for conservation in Cell Group L' to the west. Conservation within this cell will be approximately 5% of the cell focusing in the northwestern portion of the cell.

A majority of the portion of the City north of I-15 is within a Criteria Area (i.e., contains Criteria Cells). Table 2 provides a summary of the conservation criteria outlined in the MSHCP for each of these Criteria Cells.

1.5.3 Public Quasi-Public Lands

1.5.3.1 Public/Quasi-Public Lands in Reserve Assembly Analysis

The eastern portion of the City contains PQP Lands. These are located north of I-15 and consist of PQP Lands owned by RCA; these areas are listed with respect to the Criteria Cells they overlap with or are adjacent to in Table 1.

The City also contains Additional Reserve Lands. These are located throughout the northern portion of the City, north of I-15. These are listed with respect to the Criteria Cells they overlap with or are adjacent to in Table 1.

A portion of the City is located in an area designated as Rural/Mountainous in the MSHCP Area; this area corresponds to where Bundy Canyon and Iodine Springs are found. The City is not located within areas designated as American Indian Lands or Lake.

2.0 REGULATORY SETTING

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U. S. Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its Critical Habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.1.1 Critical Habitat

Critical habitat is defined in Section 3 of the ESA as:

1. the specific areas within the geographical area, occupied by a species at the time it is listed in accordance with the ESA, that contain physical or biological features essential to the conservation of the species and that may require special management considerations or protection; and

2. specific areas outside the geographical area, occupied by a species at the time it is listed, after a determination that such areas are essential for the conservation of the species.

For inclusion in a critical habitat designation, habitat within the geographical area occupied by the species at the time it was listed must first have features that are essential to the conservation of the species. Critical habitat designations identify, to the extent known and using the best scientific data available, the physical or biological features needed for life processes. Physical and biological features that are essential to the conservation of the species may require special management considerations or protection. These include, but are not limited to:

- space for individual and population growth and for normal behavior;
- food, water, air, light, minerals, or other nutritional or physiological requirements;
- cover or shelter;
- sites for breeding, reproduction, or rearing (or development) of offspring; or

- habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.

2.1.1.2 Section 7

Section 7 of the ESA mandates that all federal agencies consult with USFWS or NMFS to ensure that federal agencies' actions do not jeopardize the continued existence of a listed species or adversely modify critical habitat for listed species. If adverse effects to a species or its critical habitat are likely, the applicant must conduct a Biological Assessment (BA) for the purpose of analyzing the potential effects of the project on listed species and critical habitat to establish and justify an "effect determination." The USFWS or NMFS reviews the BA; if it concludes that the project may adversely affect a listed species or its habitat, it prepares a Biological Opinion (BO). Through consultation and the issuance of a BO, the USFWS or NMFS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. The BO may require implementation of "reasonable and prudent measures" to avoid or minimize adverse impacts on the species population(s) or adverse modification of critical habitat.

2.1.1.3 Section 10

When no discretionary action is being taken by a federal agency, but a project may result in the take of listed species, an Incidental Take Permit (ITP) under Section 10 of the federal ESA is necessary. The purpose of the ITP is to authorize the take of federally listed species that may result from an otherwise lawful activity. In order to obtain an ITP under Section 10, an application must be submitted that includes an HCP. In some instances, applicants, USFWS, or NMFS may determine that an HCP is necessary or prudent, even if a discretionary federal action will occur. The purpose of the HCP planning process associated with the permit application is to ensure that adequate minimization and mitigation for impacts to listed species and/or their habitat will occur.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, and any of their parts, eggs, and nests, from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit (USFWS 1918). As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (e.g., rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds in Sections 3503, 3503.5, 3513, and 3800 of the California Fish and Game Code.

2.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act was enacted in 1940 and prohibits anyone, without a permit, from "taking" bald or golden eagles including their parts, nests, or eggs. Take is defined as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. In addition to these protections, the Bald and Golden Eagle Protection Act provides protection for nesting sites. Nesting sites are protected not only when active but also when previously used. These nests are protected in the event that an eagle may return to the same nesting site.

2.1.4 Federal Clean Water Act

The U.S. Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into waters of the U.S. under Section 404 of the Clean Water Act (CWA). *Discharges of fill material* is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 CFR Section 328.2(f)].

In addition, Section 401 of the CWA (33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. Section 401 Certification, "gives states and authorized tribes the authority to grant or waive certification of proposed federal licenses or permits that may discharge into waters of the U.S." (33 USC 1251).

On May 25, 2023, the Supreme Court of the United States adopted a narrower definition of Waters of the U.S. in the case Sackett v. Environmental Protection Agency. Under the majority opinion, Waters of the U.S. refers to "geographical features that are described in ordinary parlance as 'streams, oceans, rivers, and lakes' and to adjacent wetlands that are "indistinguishable" from those bodies of water due to a continuous surface connection."

On August 29, 2023, the Agencies issued a final rule to amend the final "Revised Definition of 'Waters of the United States'" rule, published in the Federal Register on September 8, 2023. This final rule conforms the definition of "waters of the United States" to the U.S. Supreme Court's May 25, 2023 decision in the case of *Sackett v. Environmental Protection Agency*. Parts of the January 2023 Rule are invalid under the Supreme Court's interpretation of the CWA in the Sackett decision. Therefore, the Agencies have amended key aspects of the regulatory text to conform it to the Court's decision.

Substantial impacts to wetland and non-wetland Waters of the U.S. (over 0.5 acre of impact) may require an individual permit. Projects that only minimally affect Waters of the U.S. (less than 0.5 acre of impact) may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions. In California, this certification or waiver is typically issued by the Regional Water Quality Control Board (RWQCB). However, in the case of tribal lands that are held in trust, this certification or waiver is issued by the USACE.

2.1.5 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 (Magnuson-Stevens Act), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), establishes a requirement to describe and identify "Essential Fish Habitat" (EFH) in each federal Fishery Management Plan (FMP). EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC Section 1802[10]). Only species in a fishery management unit managed under a federal FMP are covered under EFH. The Magnuson-Stevens Act requires federal agencies to consult with the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service (also known as the NMFS) when any activity proposed to be authorized, funded, or undertaken by a federal agency may adversely affect designated EFH. An adverse effect includes direct or indirect physical, chemical, or biological alteration and includes adverse changes to waters or substrate, species and their habitat, other ecosystem components, and quality and/or quantity of EFH.

2.1.6 Federal Rivers and Harbors Act

The Rivers and Harbors Appropriation Act of 1899, commonly known as the Rivers and Harbors Act, requires permits for all structures such as bridges, causeways, riprap and for other activities such as dredging which occur within navigable waters of the U.S. Navigable waters are defined as those that are subject to the ebb and flow of the tide and susceptible to use in their natural condition or by reasonable improvements as means to transport interstate or foreign commerce. The USACE grants or denies permits based on the effects on navigation.

2.1.7 Executive Order 11990- Protection of Wetlands

President Carter signed Executive Order (EO) 11990 on May 24, 1977, requiring federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. The term "wetlands" is defined as those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Examples of wetlands are also provided in the EO: wetlands generally include swamps, marshes, bogs, and similar areas, such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. An Individual EO 11990 "Wetlands Only Practicable Alternative Finding" is required from the Federal Highway Administration (FHWA) if a state project is federally aided and involves fill in wetlands requiring a USACE Section 404 Individual or Nationwide Permit. An additional requirement is to provide early public involvement in projects affecting wetlands.

2.1.8 Executive Order 13112- Invasive Species Protection

President Clinton signed EO 13112 on February 3, 1999, requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "…any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." FHWA guidance issued August 10, 1999, directs the use of

the state's noxious weed list to define the invasive plants that must be considered as part of California Environmental Quality Act (CEQA) analysis for a proposed project.

2.1.9 National Environmental Policy Act

Signed into law on January 1, 1970, the National Environmental Policy Act (NEPA) requires all federal agencies to analyze the environmental impacts related to their proposed actions prior to making and implementing decisions or actions. This framework for evaluation of environmental and associated economic and social effects of proposed actions, described in 42 USC 4321, also provides the public opportunity to review and comment. Actions that are covered by NEPA include decision-making related to publicly owned facilities such as highways, permit applications, and federal land management.

2.2 State Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA also applies the take prohibitions to species proposed for listing (called *candidates* by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of Endangered, Threatened, or Candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any Endangered or Threatened species or result in destruction or adverse modification of essential habitat.

2.2.2 Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Fully protected species are identified in the California Fish and Game Code Section 4700 for mammals, Section 3511 for birds, Section 5050 for reptiles and amphibians, and Section 5515 for fish. Most fully protected species have since been listed as threatened or endangered under the federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing ITPs for fully protected species, except for necessary scientific research.

On July 10, 2023, Governor Gavin Newsom signed Senate Bill 147 into law and thereby amending California's statutes for fully protected species. The amendments create a temporary, 10-year permitting regime that allows proponents of a limited, defined set of projects to pursue authorization from CDFW to proceed even where there could be *take* of one or more fully protected species. Activities for which project proponents may seek a permit are:

- A maintenance, repair, or improvement project to the State Water Project undertaken by the Department of Water Resources.
- A maintenance, repair, or improvement project to critical regional or local water agency infrastructure.
- A transportation project undertaken by a state, regional, or local agency, that does not increase highway or street capacity for automobile or truck travel.
- A wind project and any appurtenant infrastructure improvement.
- A solar photovoltaic project and any appurtenant infrastructure improvement.

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 1900-1913) was created with the intent to "*preserve, protect and enhance rare and endangered plants in this State*." The NPPA is administered by CDFW. The California Fish and Game Commission (Commission) has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code Section 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.4 California Fish and Game Code

2.2.4.1 Section 86, 2000, and 3007

Section 86 defines "take" as hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. Section 2000 states that it is unlawful to take a bird, mammal, fish, reptile, or amphibian. Section 3007 states that it is unlawful to take a bird or mammal without a license or entitlement to do so.

2.2.4.2 Section 1600

Section 1600 provides for the protection and conservation of fish and wildlife resources throughout the state.

2.2.4.3 Section 1602

Section 1602 requires any person, state, local government agency, or public utility proposing a project that may affect a river, stream, or lake to notify CDFW before beginning the project. A Lake or Streambed Alteration Agreement is required if activities will result in the diversion or obstruction of the natural flow of a stream; substantially alter its bed, channel, or bank; impact riparian vegetation; or adversely affect existing fish and wildlife resources. In Title 14 of the California Code of Regulations (CCR), Section 1.72, the CDFW defines a *stream* (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This

includes watercourses having a surface or subsurface flow that support or has supported riparian vegetation."

CDFW jurisdiction includes drainages with a definable bed, bank, or channel with the jurisdictional limit being the top of bank. It also includes areas that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation.

CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

2.2.4.4 Section 2014

Section 2014 states that it is the policy of the State to conserve its natural resources and prevent the willful or negligent destruction of birds, mammals, fish, reptiles, or amphibia. The Section further explains that the State may recover damages if destruction is caused to these resources and outlines how damages are measured, actions to recover damages, persons or agencies that are excluded from coverage of this Section, and a definition of local agency.

2.2.4.5 Section 4150

Section 4150 of the California Fish and Game Code prohibits incidental or deliberate "take" of non-game mammals, including bats. Disturbance (e.g., noise, lighting) and displacement of bats from roosts and important foraging areas can potentially result in increased susceptibility to predation, reduced quality of thermal and social environments, reduced foraging efficiencies, and reduced reproductive success of maternity roosts (California Department of Transportation [Caltrans] 2016).

2.2.4.6 Special Protection for Birds

In addition to protections contained within the California ESA, the California Fish and Game Code includes several sections that specifically protect certain birds:

- Section 3800 states that it is unlawful to take nongame birds, such as those occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the California Fish and Game Commission or a mitigation plan approved by CDFW for mining operations.
- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 protects birds of prey (which includes eagles, hawks, falcons, kites, ospreys, and owls) and prohibits the take, possession, or destruction of any birds and their nests.

- Section 3505 makes it unlawful to take, sell, or purchase egrets, ospreys, and several exotic non-native species, or any part of these birds.
- Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA.

2.2.5 California Wild and Scenic Rivers Act

The California Wild and Scenic Rivers Act establishes a policy that certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values be preserved in their free-flowing state, together with their immediate environments. Where applicable, FHWA consults with the managing agencies on projects that affect designated rivers or their immediate environments to reduce potential conflicts with wild and scenic river values that are protected by the act.

2.2.6 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the RWQCB through State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) (California Code of Regulations [CCR], title 23, Section 3855) (State Water Resources Control Board 2021). *Waters of the State* is defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code Section 13050[e]). Pollution is defined as an alteration of the quality of the waters of the State by waste to a degree that unreasonably affects its beneficial uses (California Water Code Section 13050) and includes filling in waters of the State. Note that CCR, title 23, Section 3855 applies only to individual water quality certifications, but the new Procedures extend the application of Section 3855 to individual waste discharge requirements for discharges of dredged or fill material to waters of the State and waivers thereof.

2.2.7 California Environmental Quality Act

In accordance with CEQA Guidelines Section 15380, a species or subspecies not specifically protected under the federal or California ESAs or NPPA may be considered endangered, rare, or threatened for CEQA review purposes if the species meets certain criteria specified in the CEQA Guidelines. These criteria parallel the definitions used in the ESA, California ESA, and NPPA. Section 15380 was included in the CEQA Guidelines primarily to address situations in which a project under review may have a significant effect on a species that has not been listed under the ESA, California ESA, or NPPA, but that may meet the definition of endangered, rare, or threatened. Animal species identified as Species of Special Concern (SSC) by CDFW, birds identified as Birds of Conservation Concern (BCC) by USFWS, and plants identified by the California Native Plant Society (CNPS) as rare, threatened, or endangered may meet the CEQA definition of rare or endangered.

2.2.7.1 Species of Special Concern

CDFW defines an SSC as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the federal ESA, California ESA, or California Fish and Game Code, but currently satisfies one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is federally (but not state) listed as threatened or endangered or meets the state definition of threatened or endangered but has not been formally listed.
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that, if realized, could lead to declines that would qualify it for state threatened or endangered status.
- SSC are typically associated with habitats that are threatened.

Depending on the policy of the lead agency, projects that result in substantial impacts to SSC may be considered significant under CEQA.

2.2.7.2 California Rare Plant Ranks

The CNPS maintains the Inventory of Rare and Endangered Plants of California (CNPS 2023a), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, or low populations. Plant species meeting one of these criteria are assigned to one of six California Rare Plant Ranks (CRPRs). The ranking system was developed in collaboration with government, academia, non-governmental organizations, and private sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the California Natural Diversity Database (CNDDB). The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere.
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere.
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere.
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere.
- Rare Plant Rank 3 – a review list of plants about which more information is needed.
- Rare Plant Rank 4 – a watch list of plants of limited distribution.

Additionally, CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 1 through 3, with 1 being the most threatened and 3 being the

least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for the majority of plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California) and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

- Threat Rank 0.1 – Seriously threatened in California (more than 80 percent of occurrences threatened/high degree and immediacy of threat).
- Threat Rank 0.2 – Moderately threatened in California (20 to 80 percent occurrences threatened/moderate degree and immediacy of threat).
- Threat Rank 0.3 – Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

Factors such as habitat vulnerability and specificity, distribution, and condition of occurrences are considered in setting the Threat Rank; and differences in Threat Ranks do not constitute additional or different protection (CNPS 2023a).

Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, 2, and 3 are typically considered significant under CEQA Guidelines Section 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 4 and at the discretion of the CEQA lead agency.

2.2.7.3 Sensitive Natural Communities

The CDFW maintains the California Natural Community List (CDFW 2023a), which provides a list of vegetation alliances, associations, and special stands as defined in *The Manual of California Vegetation* (CNPS 2023b), along with their respective state and global rarity ranks. Natural communities with a state rarity rank of S1, S2, or S3 are considered sensitive natural communities. Depending on the policy of the lead agency, impacts to sensitive natural communities may be considered significant under CEQA.

2.2.7.4 California Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act was passed in 2001 and provides funding for conservation and protection of California oak woodlands. This act mandates the California Wildlife Conservation Board to establish a grant program designed to protect and restore oak woodlands using conservation easements, cost-share and long-term agreements, technical assistance, and public education and outreach. The grant program provides incentives designed to foster the voluntary conservation of oak woodlands.

To participate in the Oak Woodlands Conservation Program, a county or city shall adopt an Oak Woodlands Management Plan through a resolution. The county or city must prepare statements expressing support for landowners that participate in the Oak Woodlands Conservation Program and must certify that individual proposals are consistent with the county or city Oak Woodlands Management Plan.

2.2.7.5 CEQA Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

2.3 Local Policies, Ordinances, and Other Plans

2.3.1 Riverside County/Wildomar General Plan

The City of Wildomar does not currently have an independent, city-specific General Plan. Rather, it has adopted the Riverside County General Plan (Riverside County/Wildomar General Plan). The Riverside County/Wildomar General Plan is currently the City's principal policy document for future conservation and development. The General Plan addresses all aspects of development, including land use; circulation and transportation; open space, natural resources, and conservation; public facilities and services; safety; and noise.

2.3.1.1 Open Space, Habitat, and Natural Resource Preservation

Within the Riverside County General Plan the following policies are in place to allow for the preservation of open space, habitat, and natural resources. Those that pertain to biological resources are listed below; however, a complete list can be found in the General Plan document (RCIP 2003a):

LU 8.1 *Provide for permanent preservation of open space lands that contain important natural resources, hazards, water features, watercourses, and scenic and recreational values.*

LU 8.2 *Require that development protect environmental resources by compliance with the Multipurpose Open Space Element of the General Plan and Federal and State regulations such as CEQA, NEPA, the Clean Air Act, and the Clean Water Act.*

LU 8.4 *Allow development clustering and/or density transfers in order to preserve open space, natural resources, and/or biologically sensitive resources.*

OS 5.5 *New development shall preserve and enhance existing native riparian habitat and prevent obstruction of natural watercourses. Incentives shall be utilized to the maximum extent possible.*

OS 5.6 *Identify and, to the maximum extent possible, conserve remaining upland habitat areas adjacent to wetland and riparian areas that are critical to the feeding, hibernation, or nesting of wildlife species associated with these wetland and riparian areas.*

OS 6.1 *During the development review process, ensure compliance with the Clean Water Act's Section 404 in terms of wetlands mitigation policies and policies concerning fill material in jurisdictional wetlands.*

OS 6.2 *Preserve buffer zones around wetlands where feasible and biologically appropriate.*

OS 6.3 *Consider wetlands for use as natural water treatment areas that will result in improvement of water quality.*

OS 8.1 *Cooperate with federal and state agencies to achieve the sustainable conservation of forest land as a means of providing open space and protecting natural resources and habitat lands included within the MSHCPs.*

The following policies were adopted in the update to the Riverside County General Plan in 2021 for the Land Use Element section. Those that pertain to biological resources are listed below, however, a complete list can be found in the updated General Plan document (Riverside County Planning Department 2015):

LU 9.1 *Provide for permanent preservation of open space lands that contain important natural resources, cultural resources, hazards, water features, watercourses including arroyos and canyons, and scenic and recreational values.*

LU 9.2 Require that development protect environmental resources by compliance with the Multipurpose Open Space Element of the General Plan and federal and state regulations such as CEQA, NEPA, the Clean Air Act, and the Clean Water Act.

LU 9.4 Allow development clustering and/or density transfers in order to preserve open space, natural resources, cultural resources, and biologically-sensitive resources. Wherever possible, development on parcels containing 100-year floodplains, blueline streams, and other higher-order watercourses, and areas of steep slopes adjacent to them shall be clustered to keep development out of watercourse and adjacent steep slope areas, and to be compatible with other nearby land uses.

LU 24.1 With respect to properties designated either as Open Space-Conservation, Open Space-Conservation Habitat, or Open Space- Water on the area plan land use maps: Cooperate with the CDFW, USFWS, and any other appropriate agencies in establishing programs for the voluntary protection, and where feasible, voluntary restoration of significant environmental habitats.

The following policies were adopted in the update to the Riverside County General Plan in 2021 for the Multipurpose Open Space Element section. Those that pertain to biological resources are listed below; however, a complete list can be found in the updated General Plan document (Riverside County Planning Department 2015):

OS 5.1 Substantially alter floodways or implement other channelization only as a "last resort," and limit the alteration to:

c. projects where the primary function is improvement of fish and wildlife habitat.

OS 5.2 If substantial modification to a floodway is proposed, design it to reduce adverse environmental effects to the maximum extent feasible, considering the following factors:

c. wildlife habitat and linkages.

OS 5.3 Based upon site, specific study, all development shall be set back from the floodway boundary a distance adequate to address the following issues:

c. riparian or wetland buffer;

d. wildlife movement corridor or linkage.

OS 5.6 Identify and, to the maximum extent possible, conserve remaining upland habitat areas adjacent to wetland and riparian areas that are critical to the feeding, hibernation, or nesting of wildlife species associated with these wetland and riparian areas.

OS 6.1 During the development review process, ensure compliance with the Clean Water Act's Section 404 in terms of wetlands mitigation policies and policies concerning fill material in jurisdictional wetlands.

OS 6.2 Preserve buffer zones around wetlands where feasible and biologically appropriate.

OS 6.3 Consider wetlands for use as natural water treatment areas that will result in improvement of water quality.

OS 8.1 Cooperate with federal and state agencies to achieve the sustainable conservation of forest land as a means of providing open space and protecting natural resources and habitat lands included within the MSHCPs.

OS 8.2 Support conservation programs to reforest privately held forest lands.

2.3.1.2 Watersheds, Floodplains, and Watercourse Policies

The Elsinore Area Plan, part of the Riverside County General Plan, addresses conservation policies that pertain to cities within its sphere of influence. Watersheds, such as the Santa Margarita River watershed, and watercourses, such as Murrieta Creek, are described as providing corridors for wildlife movement and linkage to open spaces. To protect these areas the following policy is in place to protect these areas:

ELAP 14.1 Protect the Santa Margarita watershed and habitat and provide recreational opportunities and flood protection through adherence to the policies found in the Open Space, Habitat, and Natural Resources Preservation section of the General Plan Land Use Element and the Environmentally Sensitive Lands, Floodplain and Riparian Area Management, Wetlands, and Open Space, Parks and Recreation sections of the Multipurpose Open Space Element (Riverside County Planning Department 2015).

2.3.1.3 Oak Tree Preservation

The Elsinore Area Plan contains significant oak woodland areas that it aims to protect with the following policy:

ELAP 16.1 Protect viable oak woodlands through adherence to the Oak Tree Management Guidelines adopted by Riverside County and the Vegetation section of the Multipurpose Open Space Element of the General Plan (Riverside County Planning Department 2015).

The Riverside County General Plan (RCIP 2003a) also lists the following policies related to oak tree and native tree preservation:

OS 9.3 Maintain and conserve superior examples of native trees, natural vegetation, stands of established trees, and other features for ecosystems, aesthetic, and water conservation purposes.

OS 9.4 Conserve the oak tree resources in the County.

The following policies were adopted in the update to the Riverside County General Plan in 2021 for the Open Space Element section and relate to Vegetation (Riverside County Planning Department 2015):

OS 9.6 Conserve important traditional Native American plant gathering resource areas.

2.3.2 Riverside County Oak Tree Management Guidelines

The guidelines presented in this section are meant to "address the treatment of oak woodlands in areas where zoning and/or general plan density restrictions will allow the effective use of clustering." These guidelines are meant to reduce project impacts to oak trees to a level to a low level of significance, however, they do not exempt a project from being reviewed pursuant to CEQA.

Below is a summary of the guidelines. A complete list of all definitions and guidelines can be found here: https://planning.rctlma.org/riverside-county-oak-tree-management-guidelines#:~:text=Landscaping%2C%20trenching%20or%20irrigation%20systems,oak%20tree%20shall%20be%20avoided.

- A biological study will be required for all applications on properties that contain oak trees. This will include an inventory of vegetation including the location and size of individual oak trees that are two inches diameter-at-breast-height or larger. This includes the evaluation of dead or dying trees for their potential value to cavity nesting birds.
- Impacts of the proposed development identified and quantified.
- Options for mitigation measures if impacts cannot be avoided.
- A biological report including mitigation, consistent with CEQA and applicable State or County codes and ordinances.

2.3.3 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The MSHCP identifies 146 species, referred to as "Covered Species," for which the federal and California ESAs "take" authorization has been granted to signatories to the plan as long as they comply with its requirements. Of the 146 Covered Species within the MSHCP, 118 are considered to be "adequately conserved." The remaining 28 Covered Species will be considered to be adequately conserved when certain landmark conservation requirements are met during the course of future development. The goal of the MSHCP is to maintain the biological and ecological diversity within a rapidly urbanizing region while also improving the future economic development in the county by providing an efficient, streamlined regulatory process through which development can proceed in and efficient way.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies allows signatories of the IA to issue "take" authorizations for all species covered by the MSHCP, including state- and federally listed species, as well as other identified sensitive species and/or their habitats. Each city of local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. With payment of the mitigation fee to the county and compliance with the survey requirements of the

MSHCP where required, full mitigation in compliance with CEQA, NEPA, the California ESA, and the ESA will be granted. The Development Mitigation Fee varies according to project size and project description and is dependent on development density (Riverside County Ordinance No. 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, and the California and federal ESAs for impacts to the species and habitats covered by the MSHCP, pursuant to agreements with USFWS, CDFW, and/or any other appropriate participating regulatory agencies as set forth in the IA for the MSHCP.

2.3.3.1 Multipurpose Open Space Element

Within the Riverside County General Plan the following policies are in place to allow for the preservation of open space, habitat, and natural resources. Those that pertain to biological resources are listed below; however, a complete list can be found in the General Plan document (RCIP 2003a):

OS 17.1 Enforce the provisions of applicable MSHCP's, if adopted, when conducting review of development applications.

OS 17.2 Enforce the provisions of applicable MSHCP's, if adopted, when developing transportation or other infrastructure projects that have been designated as covered activities in the applicable MSHCP.

OS 17.3 Enforce the provisions of applicable MSHCP's, if adopted, when conducting review of possible general plan amendments and/or zoning changes.

OS 17.4 Require the preparation of biological reports in compliance with Riverside County Planning Department Biological Report Guidelines for development related uses that require discretionary approval to assess the impacts of such development and provide mitigation for impacts to biological resources until such time as the Coachella Valley MSHCP and/or Western Riverside County MSHCP are adopted or should one or both MSHCP's not be adopted.

OS 17.5 Establish baseline ratios for mitigating the impacts of development related uses to rare, threatened, and endangered species and their associated habitats to be used until such time as the Coachella Valley MSHCP and/or Western Riverside County MSHCP are adopted or should one or both MSHCP's not be adopted.

OS 18.1 Preserve multi-species habitat resources in the County of Riverside through the enforcement of the provisions of applicable MSHCP's, if adopted.

OS 18.2 Provide incentives to landowners that will encourage the protection of significant resources in the County beyond the preservation and/or conservation required to mitigate project impacts.

The following policies were adopted in the update to the Riverside County General Plan in 2021 for the Multipurpose Open Space Element section. Those that pertain to biological resources are listed below,

however, a complete list can be found in the updated General Plan document (Riverside County Planning Department 2015):

OS 17.1 Enforce the provisions of applicable MSHCP's and implement related Riverside County policies when conducting review of possible legislative actions such as general plan amendments, zoning ordinance amendments, etc. including policies regarding the handling of private and public stand alone applications for general plan amendments, lot line adjustments and zoning ordinance amendments that are not accompanied by, or associated with, an application to subdivide or other land use development application. Every stand alone application shall require an initial Habitat Evaluation and Acquisition Negotiation Process (HANS) assessment and such assessment shall be made by the Planning Department's Environmental Programs Division. Habitat assessment and species specific focused surveys shall not be required as part of this initial HANS assessment for stand alone applications but will be required when a development proposal or land use application to subsequently subdivide, grade or build on the property is submitted to the County.

OS 17.2 Enforce the provisions of applicable MSHCP's and implement related Riverside County policies when conducting review of development applications.

OS 17.3 Enforce the provisions of applicable MSHCP's and implement related Riverside County policies when developing transportation or other infrastructure projects that have been designated as covered activities in the applicable MSHCP.

OS 18.1 Preserve multi-species habitat resources in the County of Riverside through the enforcement of the provisions of applicable MSHCP's and through implementing related Riverside County policies.

OS 18.2 Provide incentives to landowners that will encourage the protection of significant resources in the county beyond the preservation and/pr conservation required to mitigate project impacts.

OS 18.3 Prohibit the planting or introduction of invasive, non-native species to watercourses, their banks, riparian areas, or buffering setbacks.

2.3.4 Stephens' Kangaroo Rat Conservation Plan

Within Riverside County there is an established Long-Term Stephens' kangaroo rat HCP (Appendix C). The Stephens' kangaroo rat conservation plan is administered by the Riverside County Habitat Conservation Agency (RCHCA) and aims to conserve 15,000 acres of occupied Stephens' kangaroo rat habitat. To date, more than 46,000 acres have been assembled in western Riverside County for this species. The RCHCA has a Section 10A permit granted by USFWS that allows for *take* of Stephens' kangaroo rat as part of development activity. The federal ESA defines *take* as any attempt to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct as it relates to Stephens' kangaroo rat. As individual projects are proposed and approved in the Stephens' kangaroo rat Plan Area, public and private land developers are required to pay a Stephens' kangaroo rat mitigation fee for land

that is developed and removes Stephens' kangaroo rat habitat. This streamlined process benefits developers in the Stephens' kangaroo rat Plan Area because projects within this area do not require individual review and approval by the wildlife agencies.

Developers benefit from the streamlined process in the Stephens' kangaroo rat Plan Area because projects within this area do not require individual review and approval by the wildlife agencies. The activities covered by the plan fall into three categories:

1. Actions by private landowners, local and regional public agencies, public and private utilities, and farmers that are otherwise lawful but constitute incidental take of Stephens' kangaroo rat as defined by the federal and California ESA;

2. Establishment and management of permanent Stephens' kangaroo rat reserves by the RCHCA in cooperation with other public agencies and individual landowners; and

3. Implementation by the RCHCA and its member agencies of the conservation, mitigation, and monitoring measures specified in this plan.

The Mitigation Fee is $500 per gross acre of the parcels proposed for development within the Stephens' kangaroo rat HCP Fee Area.

3.0 METHODS

3.1 Literature Review

The following resources were reviewed to determine the special-status species that have been documented in or in the vicinity of the City and therefore have a potential to occur within the City or may be potentially affected by activities within the City.

- CDFW CNDDB for City of Wildomar County, California (CDFW 2023b).
- Calflora Plant Database (Calflora 2023).
- USFWS Information, Planning, and Consultation System (IPaC) Resource Report List for City of Wildomar, California (USFWS 2023a).
- CNPS Electronic Inventory of Rare and Endangered Plants of California data for City of Wildomar, California (CNPS 2023a).
- NMFS Resources data for City of Wildomar, California (NOAA 2023a).
- NOAA Essential Fish Habitat Mapper (NOAA 2023b).
- USFWS National Wetland Inventory (NWI; USFWS 2023b).
- USFWS Online Critical Habitat Mapper (USFWS 2023c).
- Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2023a and 2023b).

- 2003 County of Riverside General Plan (RCIP 2003a).
- 2015 County of Riverside General Plan (Riverside County Planning Department 2015).
- Elsinore Area Plan (Riverside County Planning Department 2021b).

The results of the database queries are included in Appendix D.

4.0 RESULTS

This section includes an overview of the existing conditions of the City. The majority of the information in this section is from the Riverside County General Plan (2003, 2015) and Elsinore Area Plan (2021).

4.1 Site Characteristics and Land Use

The City is located south of the City of Lake Elsinore in a valley between the Santa Ana Mountains and Gavilan and Sedco Hills. The City has an elevational range of approximately 2,324 to 1,566 feet amsl from west to east and 1,187 to 1,777 feet amsl from south to north. Due to its location, there is a variety of biological communities. The City includes one geographic subregion: Peninsular Ranges (Jepson eFlora 2023).

4.2 Soils

According to the NRCS, there are 112 soil units mapped within the City. Of these mapped soil units, there are 13 soil units that have a hydric rating and/or may contain hydric components. These are summarized in Table 3 and shown in Figure 3.

Table 3. NRCS Soil Types

Map Unit Symbol	Map Unit Name	Hydric Rating
145	Cieneba-Rock outcrop complex, 30 to 75 percent slopes	–
147	Corralitos loamy sand, moderately fine substratum	Predominantly non-hydric
156	Hanford sandy loam, 2 to 9 percent slopes	–
187	Ramona gravelly fine sandy loam, 9 to 15 percent slopes	–
198	Soboba cobbly loamy sand, 0 to 15 percent slopes	Predominantly non-hydric
AtC2	Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes, eroded	–
AtD2	Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded	–

Table 3. NRCS Soil Types

Map Unit Symbol	Map Unit Name	Hydric Rating
AtF3	Arlington and Greenfield fine sandy loams, 15 to 35 percent slopes, severely eroded	–
AyF	Auld cobbly clay, 8 to 50 percent slopes	–
CaC2	Cajalco fine sandy loam, 2 to 8 percent slopes, eroded	–
CaD2	Cajalco fine sandy loam, 8 to 15 percent slopes, eroded	–
CaF2	Cajalco fine sandy loam, 15 to 35 percent slopes, eroded	–
CbD2	Cajalco rocky fine sandy loam, 5 to 15 percent slopes, eroded	–
CbF2	Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded	–
Ce	Chino silt loam, drained	–
Cf	Chino silt loam, drained, saline-alkali	–
Cg	Chino silt loam, drained, strongly saline-alkali	–
ChC	Cieneba sandy loam, 5 to 8 percent slopes	–
ChD2	Cieneba sandy loam, 8 to 15 percent slopes, eroded	–
ChF2	Cieneba sandy loam, 15 to 50 percent slopes, eroded	–
CkD2	Cieneba rocky sandy loam, 8 to 15 percent slopes, eroded	–
CkF2	Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded	–
EcD2	Escondido fine sandy loam, 8 to 15 percent slopes, eroded	–
EcE2	Escondido fine sandy loam, 15 to 25 percent slopes, eroded	–
EnC2	Exeter sandy loam, 2 to 8 percent slopes, eroded	–
EoB	Exeter sandy loam, slightly saline-alkali, 0 to 5 percent slopes	–
EpA	Exeter sandy loam, deep, 0 to 2 percent slopes	–
EwB	Exeter very fine sandy loam, 0 to 5 percent slopes	–
FaD2	Fallbrook sandy loam, 8 to 15 percent slopes, eroded	–
FbC2	Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded	–

Table 3. NRCS Soil Types

Map Unit Symbol	Map Unit Name	Hydric Rating
FbF2	Fallbrook sandy loam, shallow, 15 to 35 percent slopes, eroded	–
FcF2	Fallbrook rocky sandy loam, shallow, 15 to 50 percent slopes, eroded	–
FfC2	Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded	–
FkD2	Fallbrook fine sandy loam, shallow, 8 to 15 percent slopes, eroded	–
FwE2	Friant fine sandy loam, 5 to 25 percent slopes, eroded	–
GdD2	Garretson gravelly very fine sandy loam, 8 to 15 percent slopes, eroded	–
GhC	Gorgonio loamy sand, 0 to 8 percent slopes	–
GhD	Gorgonio loamy sand, 8 to 15 percent slopes	–
GkD	Gorgonio loamy sand, channeled, 2 to 15 percent slopes	Predominately non-hydric
GlC	Gorgonio loamy sand, deep, 2 to 8 percent slopes	–
GP	Gravel pits	–
GtA	Grangeville fine sandy loam, drained, 0 to 2 percent slopes	–
GuB	Grangeville fine sandy loam, poorly drained, saline-alkali, 0 to 5 percent slopes	Predominately non-hydric
GvB	Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes	–
GyA	Greenfield sandy loam, 0 to 2 percent slopes	–
GyC2	Greenfield sandy loam, 2 to 8 percent slopes, eroded	–
GyD2	Greenfield sandy loam, 8 to 15 percent slopes, eroded	–
GyE2	Greenfield sandy loam, 15 to 25 percent slopes eroded	–
GzG	Gullied land	–
HcA	Hanford coarse sandy loam, 0 to 2 percent slopes	–
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes	–
HcD2	Hanford coarse sandy loam, 8 to 15 percent slopes, eroded	–

Table 3. NRCS Soil Types

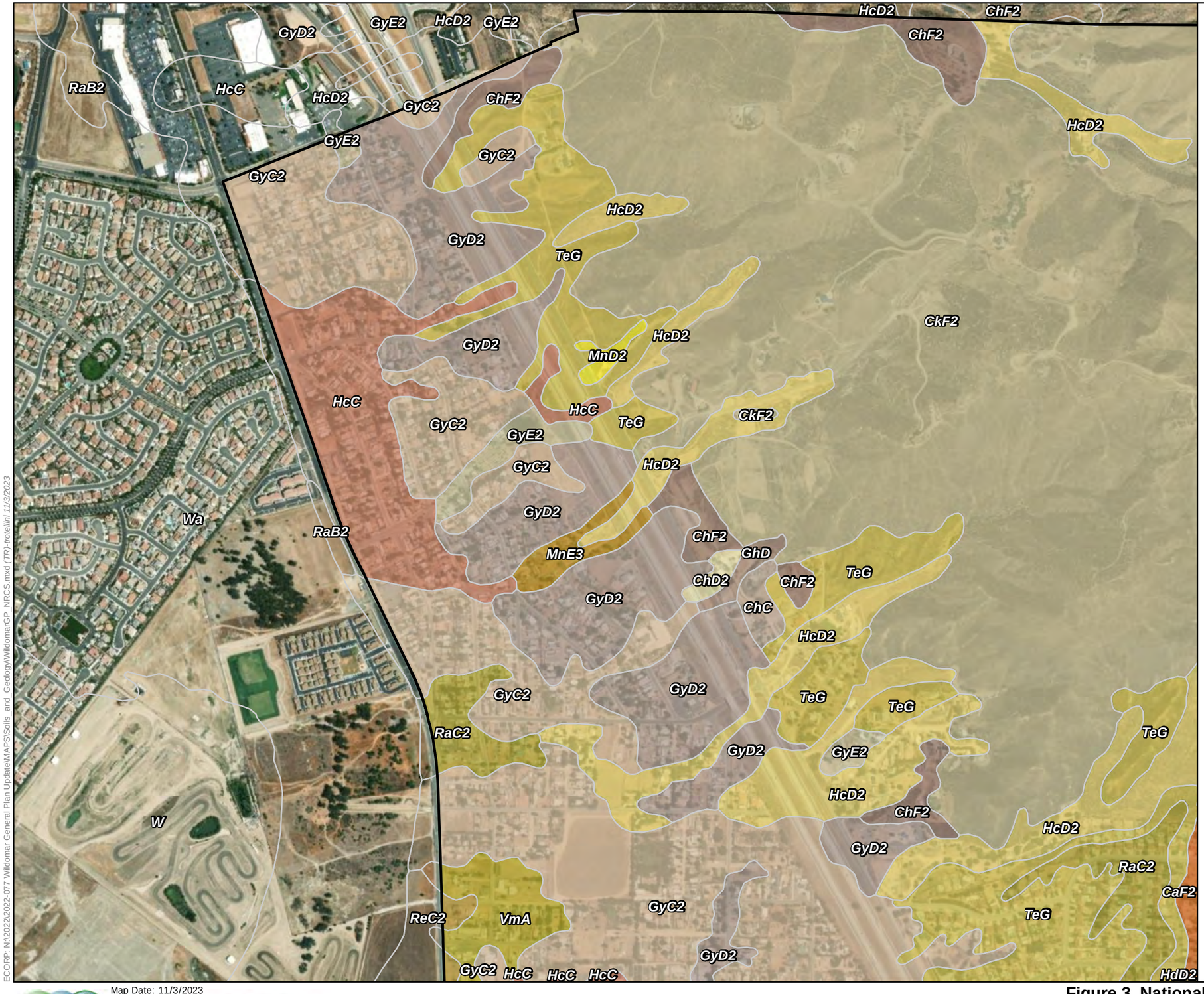
Map Unit Symbol	Map Unit Name	Hydric Rating
HdD2	Hanford cobbly coarse sandy loam, 2 to 15 percent slopes, eroded	Predominately non-hydric
HfD	Hanford sandy loam, 2 to 15 percent slopes	Predominately non-hydric
HgA	Hanford fine sandy loam, 0 to 2 percent slopes	–
HnC	Honcut sandy loam, 2 to 8 percent slopes	–
HnD2	Honcut sandy loam, 8 to 15 percent slopes	–
HuC2	Honcut loam, 2 to 8 percent slopes, eroded	–
LaC	Las Posas loam, 2 to 8 percent slopes	–
LaC2	Las Posas loam, 5 to 8 percent slopes, eroded	–
LaD2	Las Posas loam, 8 to 15 percent slopes, eroded	–
LaE3	Las Posas loam, 9 to 25 percent slopes, severely eroded	–
LcD2	Las Posas stony loam, 8 to 15 percent slopes, eroded	–
LkD2	Las Posas rocky loam, 8 to 15 percent slopes, eroded	–
LkF3	Las Posas rocky loam, 15 to 50 percent slopes, severely eroded	–
LoF2	Lodo gravelly loam, 15 to 50 percent slopes, eroded	–
LpE2	Lodo rocky loam, 9 to 25 percent slopes, eroded	–
LpF2	Lodo rocky loam, 25 to 50 percent slopes, eroded	–
MmB	Monserate sandy loam, 0 to 5 percent slopes	–
MmC2	Monserate sandy loam, 5 to 8 percent slopes, eroded	–
MmD2	Monserate sandy loam, 8 to 15 percent slopes, eroded	–
MmE3	Monserate sandy loam, 15 to 25 percent slopes, severely eroded	–
MnD2	Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded	–
MnE3	Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded	–
PaA	Pachappa fine sandy loam, 0 to 2 percent slopes	–

Table 3. NRCS Soil Types

Map Unit Symbol	Map Unit Name	Hydric Rating
PaC2	Pachappa fine sandy loam, 2 to 8 percent slopes, eroded	–
PlB	Placentia fine sandy loam, 0 to 5 percent slopes	Predominantly non-hydric
PlD	Placentia fine sandy loam, 5 to 15 percent slopes	Predominantly non-hydric
PoC	Porterville clay, 0 to 8 percent slopes	–
PsC	Porterville clay, moderately deep, 2 to 8 percent slopes	–
RaB2	Ramona sandy loam, 2 to 5 percent slopes, eroded	–
RaB3	Ramona sandy loam, 0 to 5 percent slopes, severely eroded	–
RaC2	Ramona sandy loam, 5 to 8 percent slopes, eroded	–
RaC3	Ramona sandy loam, 5 to 8 percent slopes, severely eroded	–
RaD2	Ramona sandy loam, 8 to 15 percent slopes, eroded	–
RaD3	Ramona sandy loam, 8 to 15 percent slopes, severely eroded	–
RaE3	Ramona sandy loam, 15 to 25 percent slopes, severely eroded	–
RdD2	Ramona sandy loam, moderately deep, 8 to 15 percent slopes, eroded	–
ReC2	Ramona very fine sandy loam, 0 to 8 percent slopes, eroded	–
RmE3	Ramona and Buren sandy loams, 15 to 25 percent slopes, severely eroded	–
RnD2	Ramona and Buren loams, 5 to 15 percent slopes, eroded	–
RnE3	Ramona and Buren loams, 5 to 25 percent slopes, severely eroded	–
RsC	Riverwash	Hydric
RuF	Rough broken land	–
SmE2	San Timoteo loam, 8 to 25 percent slopes, eroded	–
TeG	Terrace escarpments	–
Tt2	Traver fine sandy loam, strongly saline-alkali, eroded	–

Table 3. NRCS Soil Types

Map Unit Symbol	Map Unit Name	Hydric Rating
TvC	Tujunga loamy sand, channeled, 0 to 8 percent slopes	Predominately non-hydric
VmA	Visalia fine sandy loam, 0 to 2 percent slopes	–
VmC	Visalia fine sandy loam, 2 to 8 percent slopes	–
VsC	Vista coarse sandy loam, 2 to 8 percent slopes	–
VsD2	Vista coarse sandy loam, 8 to 15 percent slopes, eroded	–
VsF2	Vista coarse sandy loam, 15 to 35 percent slopes, eroded	–
VtF2	Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded	–
Wf	Willows silty clay	–
Wg	Willow silty clay, saline-alkali	–
WxD2	Wyman fine sandy loam, 8 to 15 percent slopes, eroded	–
WyC2	Wyman loam, 2 to 8 percent slopes, eroded	–
YbC	Yokohl loam, 2 to 8 percent slopes	Predominately non-hydric
YbD2	Yokohl loam, 8 to 15 percent slopes, eroded	Predominately non-hydric
YbE3	Yokohl loam, 8 to 25 percent slopes, severely eroded	Predominately non-hydric
YsE3	Ysidora gravelly very fine sandy loam, 8 to 25 percent slopes, severely eroded	–



Map Features

Wildomar City Limits

Series Designation - Series Description

- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChC - Cieneba sandy loam, 5 to 8 percent slopes
- ChD2 - Cieneba sandy loam, 8 to 15 percent slopes, eroded
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- GhD - Gorgonio loamy sand, 8 to 15 percent slopes
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- GyD2 - Greenfield sandy loam, 8 to 15 percent slopes, eroded
- GyE2 - Greenfield sandy loam, 15 to 25 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HdD2 - Hanford cobbly coarse sandy loam, 2 to 15 percent slopes, eroded
- MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- MnE3 - Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
- RaC2 - Ramona sandy loam, 5 to 8 percent slopes, eroded
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- TeG - Terrace escarpments
- VmA - Visalia fine sandy loam, 0 to 2 percent slopes

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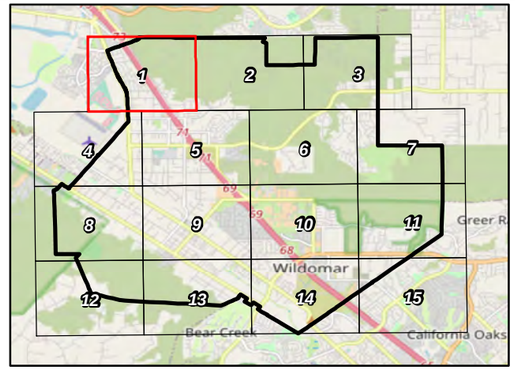

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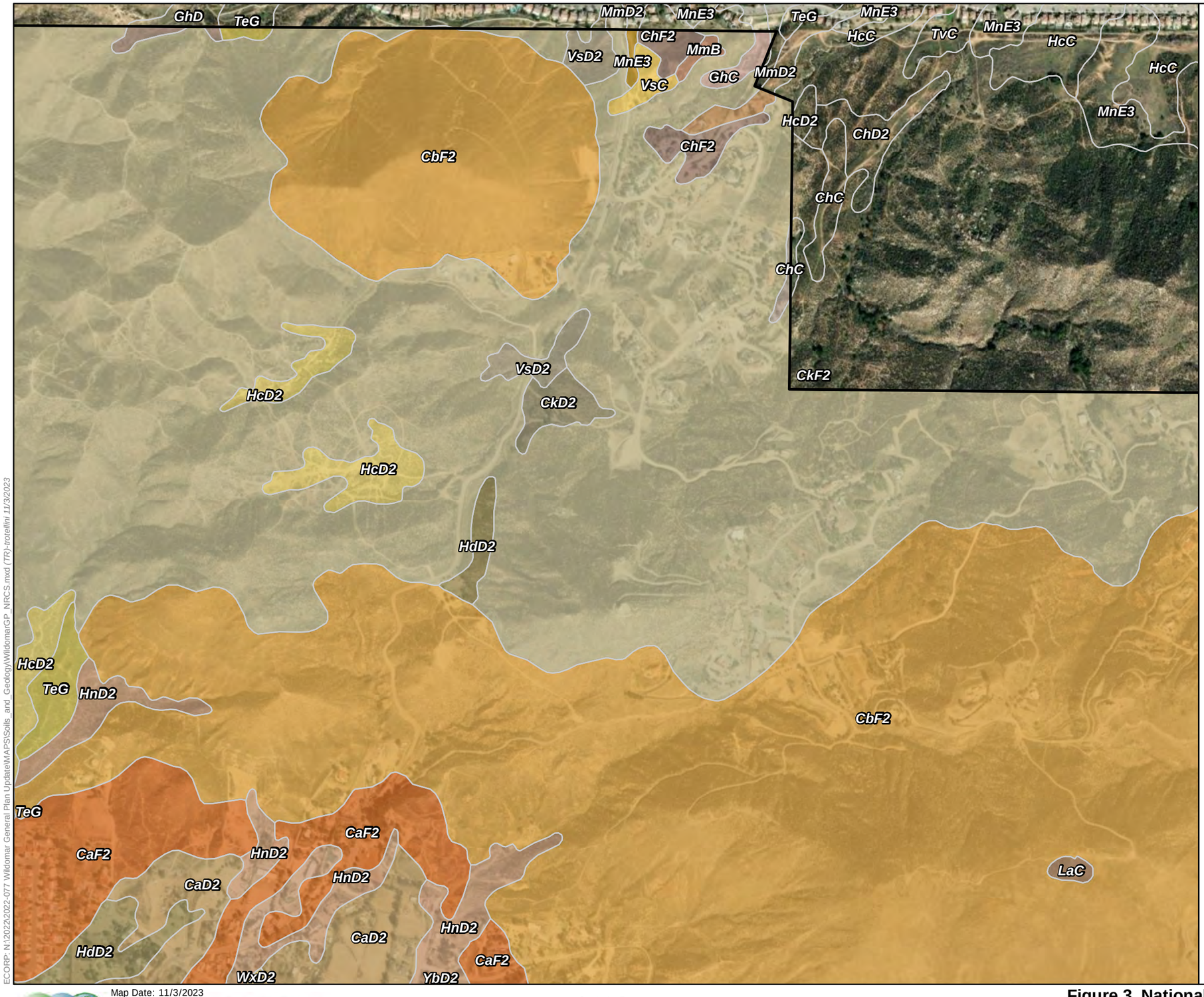
Figure 3. National Resources Conservation Service Soil Types
Sheet 1 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

Series Designation - Series Description

- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChC - Cieneba sandy loam, 5 to 8 percent slopes
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkD2 - Cieneba rocky sandy loam, 8 to 15 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- GhC - Gorgonio loamy sand, 0 to 8 percent slopes
- GhD - Gorgonio loamy sand, 8 to 15 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HdD2 - Hanford cobbly coarse sandy loam, 2 to 15 percent slopes, eroded
- HnD2 - Honcut sandy loam, 8 to 15 percent slopes, eroded
- LaC - Las Posas loam, 2 to 8 percent slopes
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- MnE3 - Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
- TeG - Terrace escarpments
- VsC - Vista coarse sandy loam, 2 to 8 percent slopes
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded
- WxD2 - Wyman fine sandy loam, 8 to 15 percent slopes, eroded
- YbD2 - Yokohl loam, 8 to 15 percent slopes, eroded

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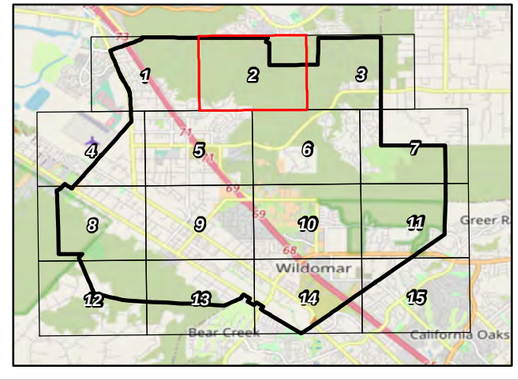

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Scale in Feet
0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 2 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Series Designation - Series Description

- AyF - Auld cobbly clay, 8 to 50 percent slopes
- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- EcD2 - Escondido fine sandy loam, 8 to 15 percent slopes, eroded
- EcE2 - Escondido fine sandy loam, 15 to 25 percent slopes, eroded
- FwE2 - Friant fine sandy loam, 5 to 25 percent slopes, eroded
- GdD2 - Garretson gravelly very fine sandy loam, 8 to 15 percent slopes, eroded
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HnC - Honcut sandy loam, 2 to 8 percent slopes
- HnD2 - Honcut sandy loam, 8 to 15 percent slopes, eroded
- LaC - Las Posas loam, 2 to 8 percent slopes
- LaC2 - Las Posas loam, 5 to 8 percent slopes, eroded
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- LaE3 - Las Posas loam, 8 to 25 percent slopes, severely eroded
- LcD2 - Las Posas stony loam, 8 to 15 percent slopes, eroded
- LoF2 - Lodo gravelly loam, 15 to 50 percent slopes, eroded
- LpE2 - Lodo rocky loam, 8 to 25 percent slopes, eroded
- LpF2 - Lodo rocky loam, 25 to 50 percent slopes, eroded
- MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- PlD - Placentia fine sandy loam, 5 to 15 percent slopes
- PoC - Porterville clay, 0 to 8 percent slopes
- RsC - Riverwash
- RuF - Rough broken land
- TeG - Terrace escarpments
- WxD2 - Wyman fine sandy loam, 8 to 15 percent slopes, eroded
- WyC2 - Wyman loam, 2 to 8 percent slopes, eroded
- YbC - Yokohl loam, 2 to 8 percent slopes
- YbD2 - Yokohl loam, 8 to 15 percent slopes, eroded
- YbE3 - Yokohl loam, 8 to 25 percent slopes, severely eroded
- YsE3 - Ysidora gravelly very fine sandy loam, 8 to 25 percent slopes, severely eroded

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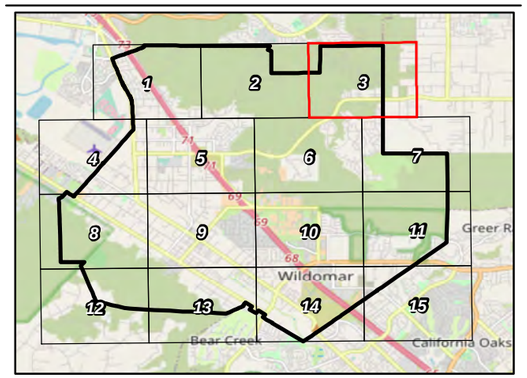

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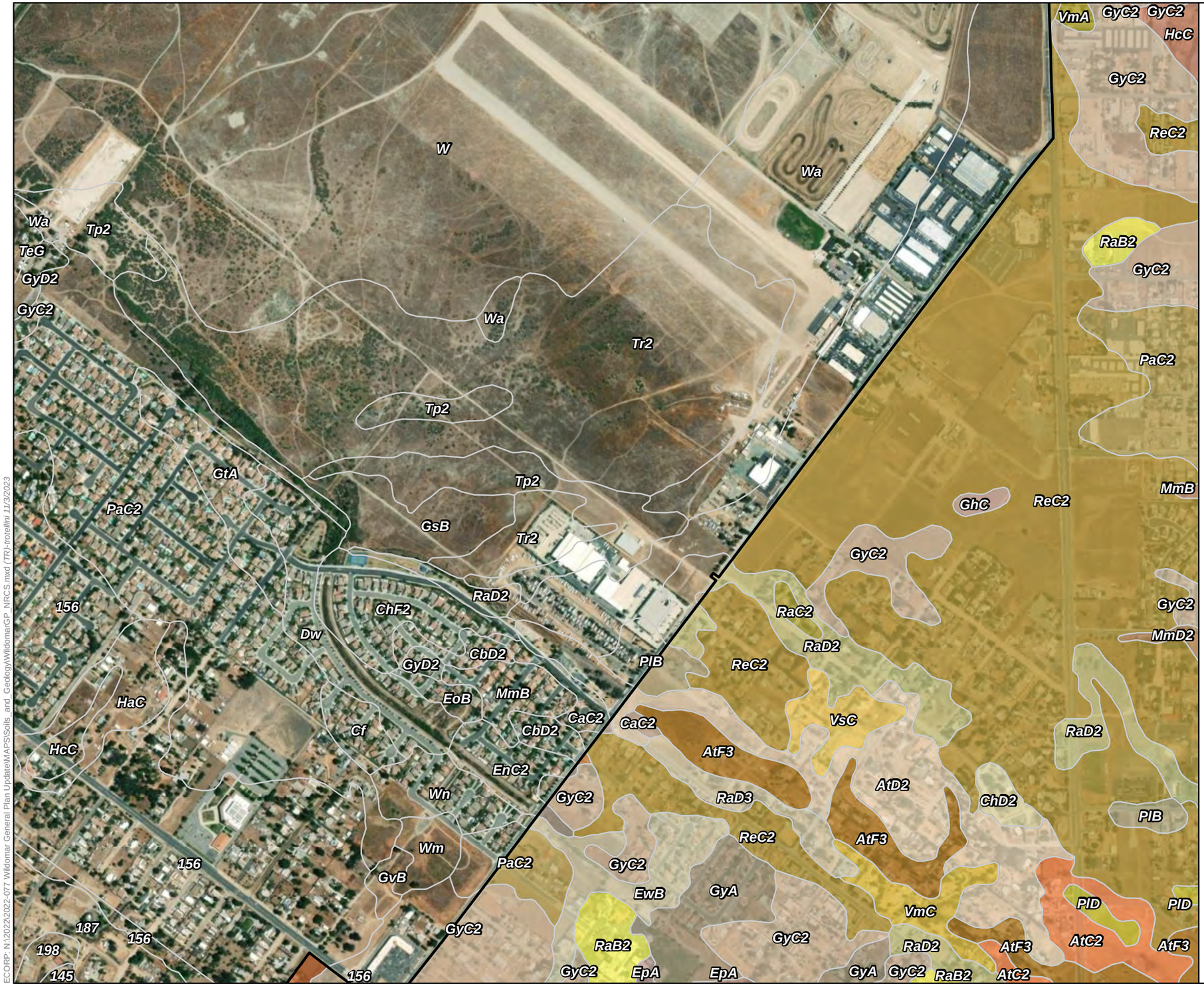
Figure 3. National Resources Conservation Service Soil Types
Sheet 3 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

Series Designation - Series Description

- 156 - Hanford sandy loam, 2 to 9 percent slopes
- AtC2 - Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes , eroded
- AtD2 - Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded
- AtF3 - Arlington and Greenfield fine sandy loams, 15 to 35 percent slopes, severely eroded
- CaC2 - Cajalco fine sandy loam, 2 to 8 percent slopes, eroded
- CbD2 - Cajalco rocky fine sandy loam, 5 to 15 percent slopes, eroded
- ChD2 - Cieneba sandy loam, 8 to 15 percent slopes, eroded
- EnC2 - Exeter sandy loam, 2 to 8 percent slopes, eroded
- EpA - Exeter sandy loam, deep, 0 to 2 percent slopes
- EwB - Exeter very fine sandy loam, 0 to 5 percent slopes
- GhC - Gorgonio loamy sand, 0 to 8 percent slopes
- GyA - Greenfield sandy loam, 0 to 2 percent slopes
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- PaC2 - Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- PlB - Placentia fine sandy loam, 0 to 5 percent slopes
- PlD - Placentia fine sandy loam, 5 to 15 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaC2 - Ramona sandy loam, 5 to 8 percent slopes, eroded
- RaD2 - Ramona sandy loam, 8 to 15 percent slopes, eroded
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- VmA - Visalia fine sandy loam, 0 to 2 percent slopes
- VmC - Visalia fine sandy loam, 2 to 8 percent slopes
- VsC - Vista coarse sandy loam, 2 to 8 percent slopes

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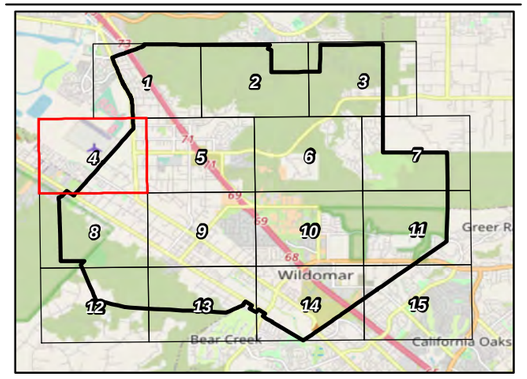

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Figure 3. National Resources Conservation Service Soil Types
Sheet 4 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Series Designation - Series Description

- AtD2 - Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded
- AtF3 - Arlington and Greenfield fine sandy loams, 15 to 35 percent slopes, severely eroded
- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChD2 - Cieneba sandy loam, 8 to 15 percent slopes, eroded
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- GP - Gravel pits
- GhD - Gorgonio loamy sand, 8 to 15 percent slopes
- GkD - Gorgonio loamy sand, channeled, 2 to 15 percent slopes
- GyA - Greenfield sandy loam, 0 to 2 percent slopes
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- GyD2 - Greenfield sandy loam, 8 to 15 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HdD2 - Hanford cobbly coarse sandy loam, 2 to 15 percent slopes, eroded
- HgA - Hanford fine sandy loam, 0 to 2 percent slopes
- HnC - Honcut sandy loam, 2 to 8 percent slopes
- HnD2 - Honcut sandy loam, 8 to 15 percent slopes, eroded
- LaC2 - Las Posas loam, 5 to 8 percent slopes, eroded
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- LaE3 - Las Posas loam, 8 to 25 percent slopes, severely eroded
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- PaA - Pachappa fine sandy loam, 0 to 2 percent slopes
- PaC2 - Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- PlD - Placentia fine sandy loam, 5 to 15 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaB3 - Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaC2 - Ramona sandy loam, 5 to 8 percent slopes, eroded
- RaC3 - Ramona sandy loam, 5 to 8 percent slopes, severely eroded
- RaD2 - Ramona sandy loam, 8 to 15 percent slopes, eroded
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RaE3 - Ramona sandy loam, 15 to 25 percent slopes, severely eroded
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- RsC - Riverwash
- TeG - Terrace escarpments
- TvC - Tujunga loamy sand, channeled, 0 to 8 percent slopes
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded
- WxD2 - Wyman fine sandy loam, 8 to 15 percent slopes, eroded
- YbD2 - Yokohl loam, 8 to 15 percent slopes, eroded
- YbE3 - Yokohl loam, 8 to 25 percent slopes, severely eroded

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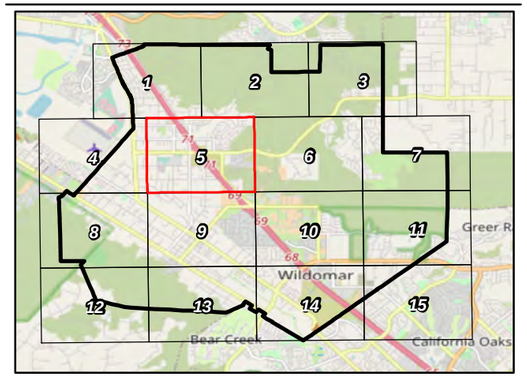

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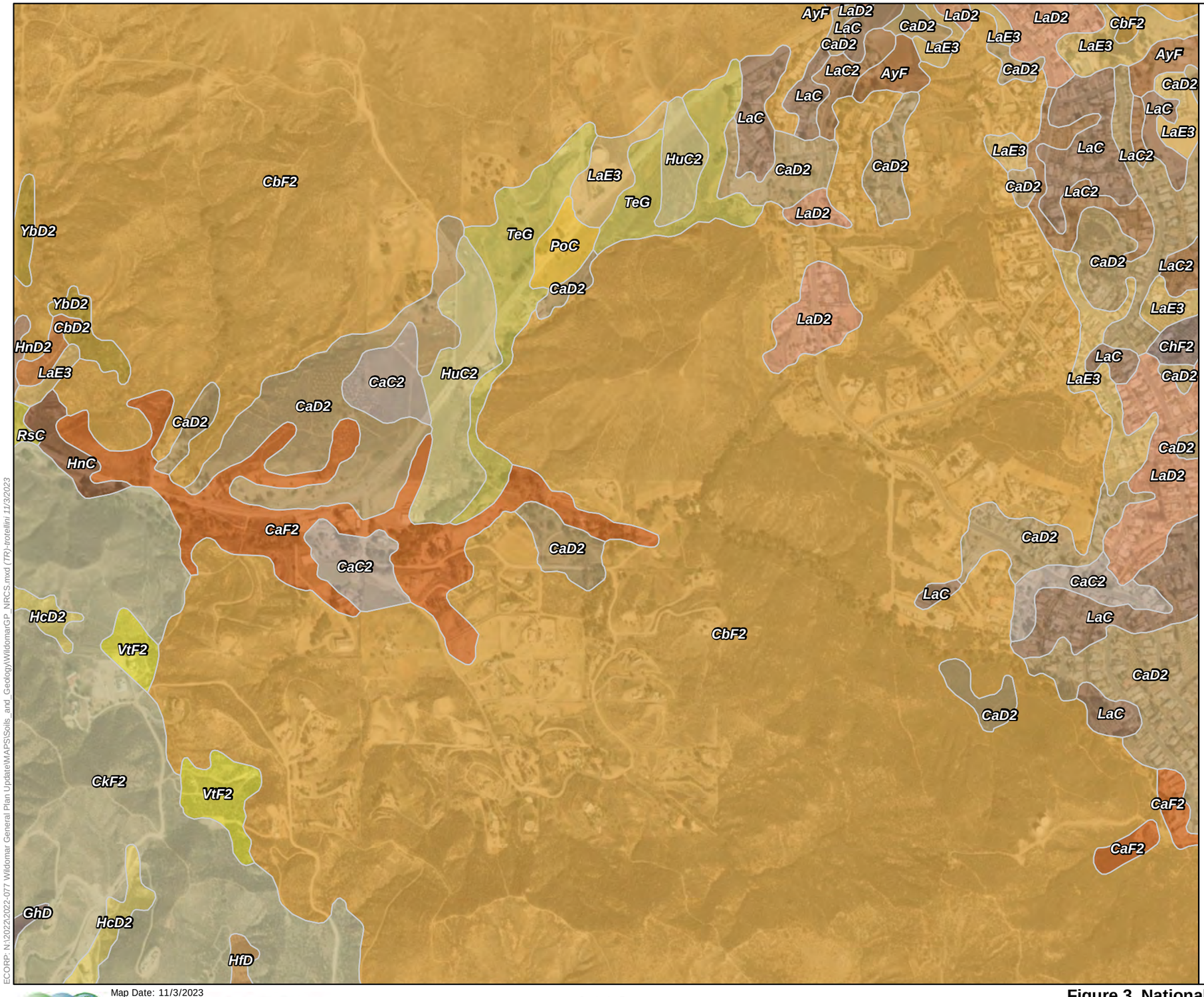
Figure 3. National Resources Conservation Service Soil Types
Sheet 5 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

Series Designation - Series Description

- AyF - Auld cobbly clay, 8 to 50 percent slopes
- CaC2 - Cajalco fine sandy loam, 2 to 8 percent slopes, eroded
- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbD2 - Cajalco rocky fine sandy loam, 5 to 15 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- GhD - Gorgonio loamy sand, 8 to 15 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HfD - Hanford sandy loam, 2 to 15 percent slopes
- HnC - Honcut sandy loam, 2 to 8 percent slopes
- HnD2 - Honcut sandy loam, 8 to 15 percent slopes, eroded
- HuC2 - Honcut loam, 2 to 8 percent slopes, eroded
- LaC - Las Posas loam, 2 to 8 percent slopes
- LaC2 - Las Posas loam, 5 to 8 percent slopes, eroded
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- LaE3 - Las Posas loam, 8 to 25 percent slopes, severely eroded
- PoC - Porterville clay, 0 to 8 percent slopes
- RsC - Riverwash
- TeG - Terrace escarpments
- VtF2 - Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
- YbD2 - Yokohl loam, 8 to 15 percent slopes, eroded

Sources: ESRI, Placeworks, NRCS (gSSURGO)
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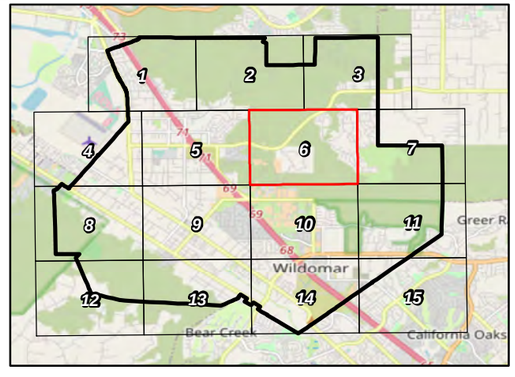

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Map Date: 11/3/2023

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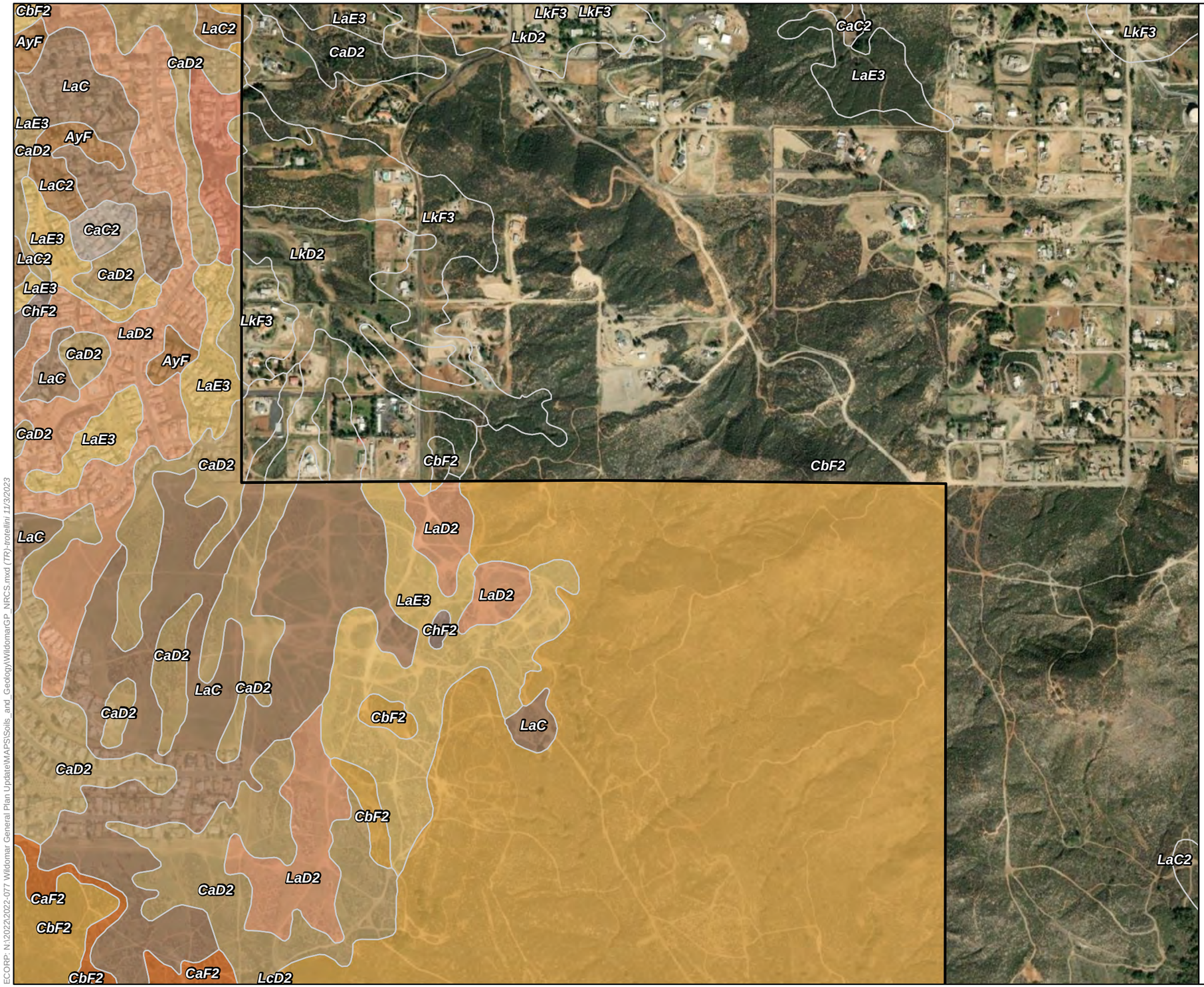
Scale in Feet
0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 6 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

Series Designation - Series Description

- AyF - Auld cobbly clay, 8 to 50 percent slopes
- CaC2 - Cajalco fine sandy loam, 2 to 8 percent slopes, eroded
- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- LaC - Las Posas loam, 2 to 8 percent slopes
- LaC2 - Las Posas loam, 5 to 8 percent slopes, eroded
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- LaE3 - Las Posas loam, 8 to 25 percent slopes, severely eroded
- LcD2 - Las Posas stony loam, 8 to 15 percent slopes, eroded
- LkD2 - Las Posas rocky loam, 8 to 15 percent slopes, eroded
- LkF3 - Las Posas rocky loam, 15 to 50 percent slopes, severely eroded

Sources: ESRI, Placeworks, NRCS (gSSURGO)
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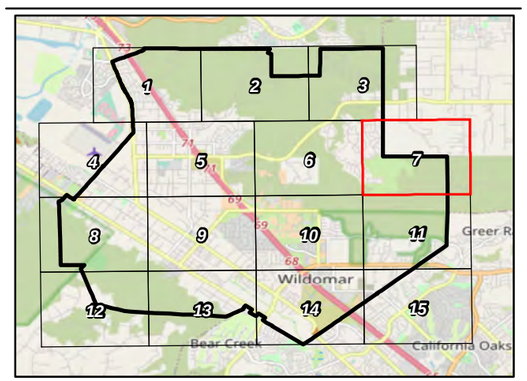

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Map Date: 11/3/2023

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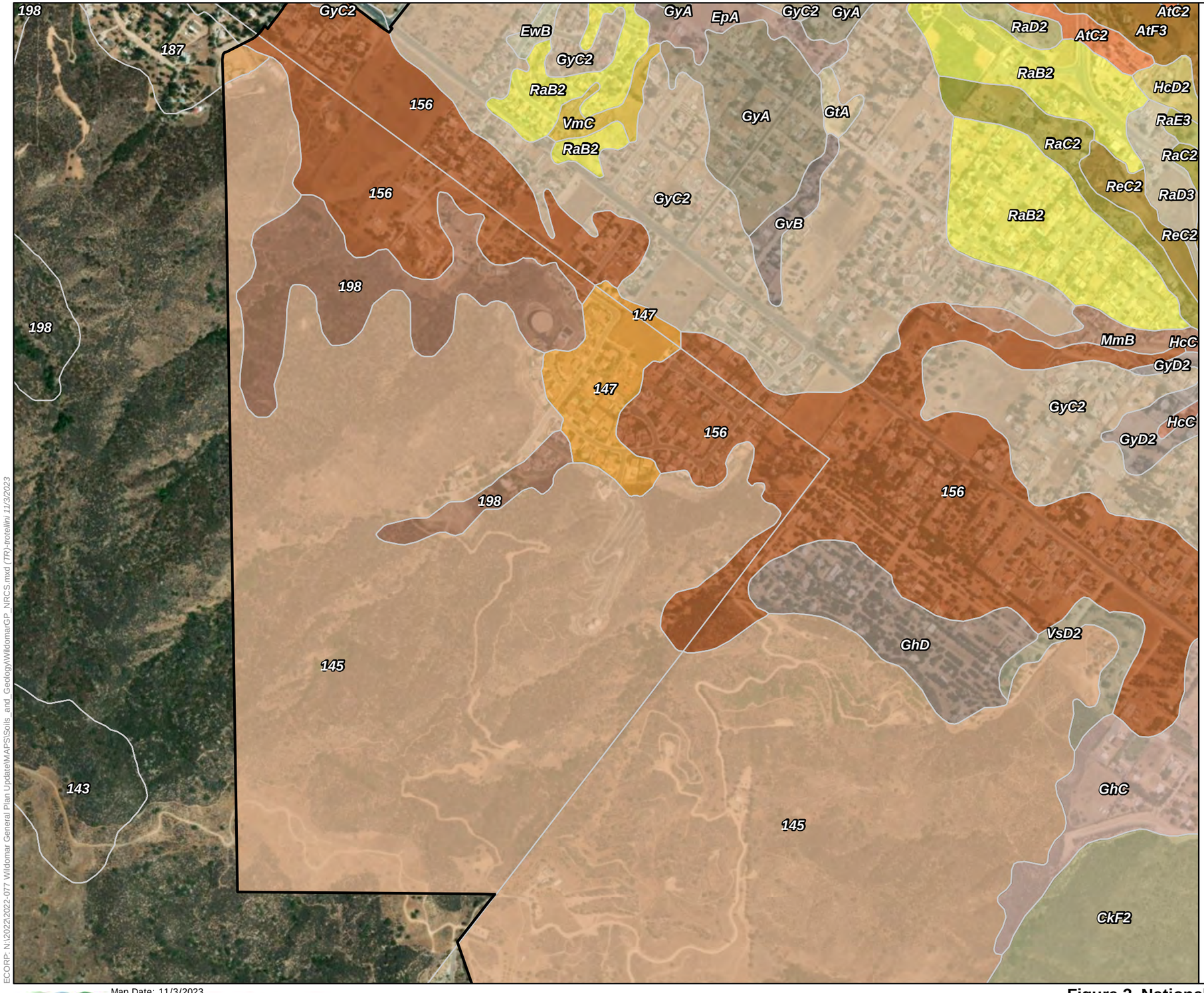
Scale in Feet
0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 7 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

Series Designation - Series Description

- 145 - Cieneba-Rock outcrop complex, 30 to 75 percent slopes
- 147 - Corralitos loamy sand, moderately fine substratum
- 156 - Hanford sandy loam, 2 to 9 percent slopes
- 187 - Ramona gravelly fine sandy loam, 9 to 15 percent slopes
- 198 - Soboba cobbly loamy sand, 0 to 15 percent slopes
- AtC2 - Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes , eroded
- AtF3 - Arlington and Greenfield fine sandy loams, 15 to 35 percent slopes, severely eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- EpA - Exeter sandy loam, deep, 0 to 2 percent slopes
- EwB - Exeter very fine sandy loam, 0 to 5 percent slopes
- GhC - Gorgonio loamy sand, 0 to 8 percent slopes
- GhD - Gorgonio loamy sand, 8 to 15 percent slopes
- GtA - Grangeville fine sandy loam, drained, 0 to 2 percent sl opes
- GvB - Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes
- GyA - Greenfield sandy loam, 0 to 2 percent slopes
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- GyD2 - Greenfield sandy loam, 8 to 15 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaC2 - Ramona sandy loam, 5 to 8 percent slopes, eroded
- RaD2 - Ramona sandy loam, 8 to 15 percent slopes, eroded
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RaE3 - Ramona sandy loam, 15 to 25 percent slopes, severely eroded
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- VmC - Visalia fine sandy loam, 2 to 8 percent slopes
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded

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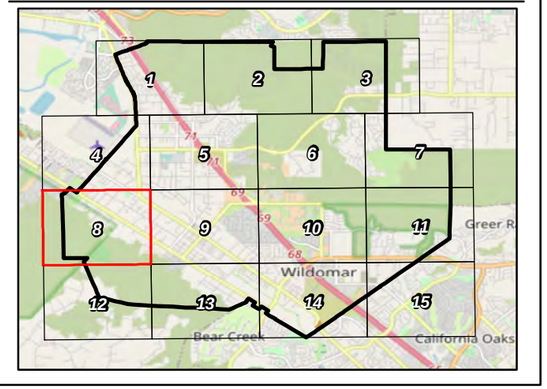

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Map Date: 11/3/2023

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Scale in Feet
0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 8 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Series Designation - Series Description

- 156 - Hanford sandy loam, 2 to 9 percent slopes
- AtD2 - Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded
- AtF3 - Arlington and Greenfield fine sandy loams, 15 to 35 percent slopes, severely eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- Ce - Chino silt loam, drained
- Cg - Chino silt loam, drained, strongly saline-alkali
- ChD2 - Cieneba sandy loam, 8 to 15 percent slopes, eroded
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- EoB - Exeter sandy loam, slightly saline-alkali, 0 to 5 perce nt slopes
- GhC - Gorgonio loamy sand, 0 to 8 percent slopes
- GhD - Gorgonio loamy sand, 8 to 15 percent slopes
- GtA - Grangeville fine sandy loam, drained, 0 to 2 percent sl opes
- GuB - Grangeville fine sandy loam, poorly drained, saline-alk ali, 0 to 5 percent slopes
- GyA - Greenfield sandy loam, 0 to 2 percent slopes
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- GyD2 - Greenfield sandy loam, 8 to 15 percent slopes, eroded
- GyE2 - Greenfield sandy loam, 15 to 25 percent slopes, eroded
- HcA - Hanford coarse sandy loam, 0 to 2 percent slopes
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HfD - Hanford sandy loam, 2 to 15 percent slopes
- HgA - Hanford fine sandy loam, 0 to 2 percent slopes
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- MnE3 - Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
- PaA - Pachappa fine sandy loam, 0 to 2 percent slopes
- PaC2 - Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- PlB - Placentia fine sandy loam, 0 to 5 percent slopes
- PlD - Placentia fine sandy loam, 5 to 15 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaB3 - Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaC2 - Ramona sandy loam, 5 to 8 percent slopes, eroded
- RaD2 - Ramona sandy loam, 8 to 15 percent slopes, eroded
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RaE3 - Ramona sandy loam, 15 to 25 percent slopes, severely eroded
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- RnE3 - Ramona and Buren loams, 5 to 25 percent slopes, severely eroded
- RsC - Riverwash
- RuF - Rough broken land
- TeG - Terrace escarpments
- VmC - Visalia fine sandy loam, 2 to 8 percent slopes
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded

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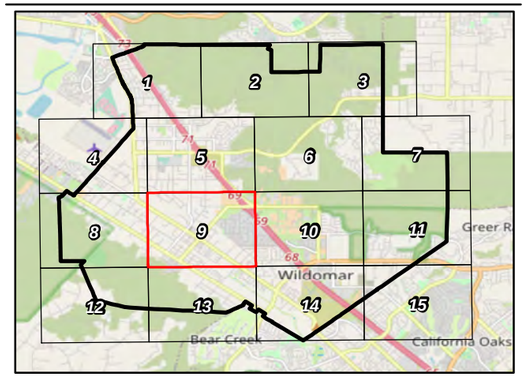

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Map Date: 11/3/2023

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Scale in Feet
0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 9 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Series Designation - Series Description

- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChC - Cieneba sandy loam, 5 to 8 percent slopes
- ChD2 - Cieneba sandy loam, 8 to 15 percent slopes, eroded
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2 - Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- FbC2 - Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded
- FcF2 - Fallbrook rocky sandy loam, shallow, 15 to 50 percent slopes, eroded
- FkD2 - Fallbrook fine sandy loam, shallow, 8 to 15 percent slopes, eroded
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HfD - Hanford sandy loam, 2 to 15 percent slopes
- HnC - Honcut sandy loam, 2 to 8 percent slopes
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- MnE3 - Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
- PlB - Placentia fine sandy loam, 0 to 5 percent slopes
- PlD - Placentia fine sandy loam, 5 to 15 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- RmE3 - Ramona and Buren sandy loams, 15 to 25 percent slopes, severely eroded
- RnE3 - Ramona and Buren loams, 5 to 25 percent slopes, severely eroded
- TeG - Terrace escarpments
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded
- VsF2 - Vista coarse sandy loam, 15 to 35 percent slopes, eroded
- YbC - Yokohl loam, 2 to 8 percent slopes
- YbD2 - Yokohl loam, 8 to 15 percent slopes, eroded
- YbE3 - Yokohl loam, 8 to 25 percent slopes, severely eroded

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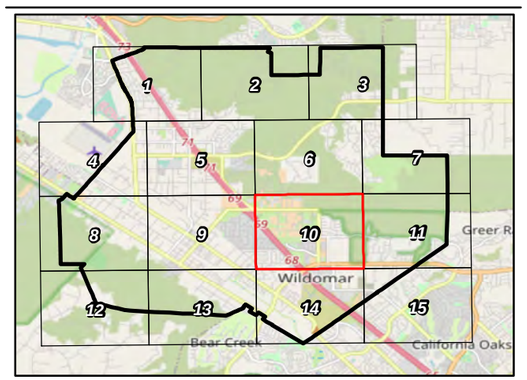

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Map Date: 11/3/2023

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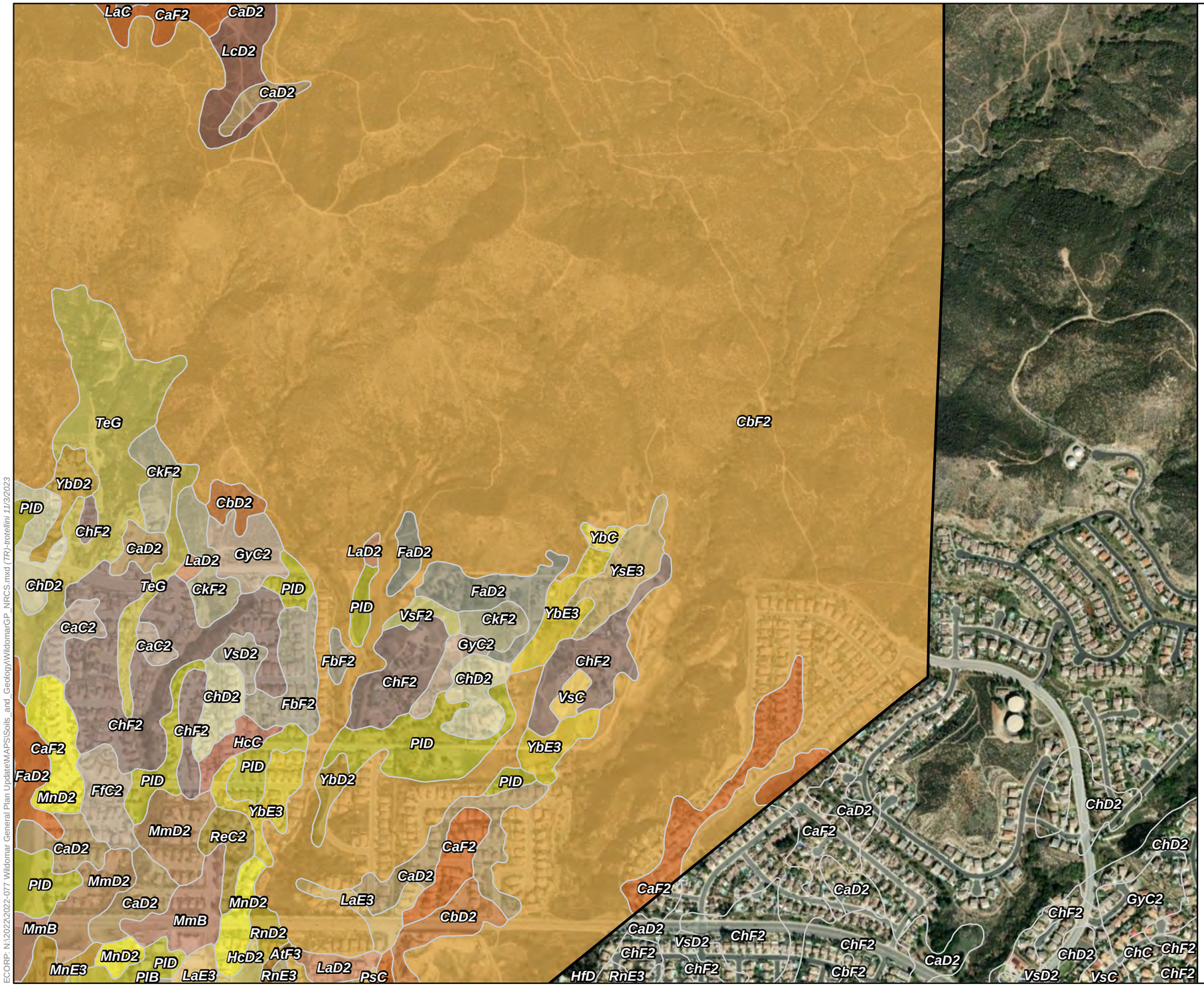
Scale in Feet
0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 10 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

Series Designation - Series Description

- AtF3 - Arlington and Greenfield fine sandy loams, 15 to 35 percent slopes, severely eroded
- CaC2 - Cajalco fine sandy loam, 2 to 8 percent slopes, eroded
- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbD2 - Cajalco rocky fine sandy loam, 5 to 15 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChD2 - Cieneba sandy loam, 8 to 15 percent slopes, eroded
- ChF2 - Cieneba sandy loam, 15 to 50 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2 - Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- FbF2 - Fallbrook sandy loam, shallow, 15 to 35 percent slopes, eroded
- FfC2 - Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- LaC - Las Posas loam, 2 to 8 percent slopes
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- LaE3 - Las Posas loam, 8 to 25 percent slopes, severely eroded
- LcD2 - Las Posas stony loam, 8 to 15 percent slopes, eroded
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- MnE3 - Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
- PlB - Placentia fine sandy loam, 0 to 5 percent slopes
- PlD - Placentia fine sandy loam, 5 to 15 percent slopes
- PsC - Porterville clay, moderately deep, 2 to 8 percent slopes
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- RnD2 - Ramona and Buren loams, 5 to 15 percent slopes, eroded
- RnE3 - Ramona and Buren loams, 5 to 25 percent slopes, severely eroded
- TeG - Terrace escarpments
- VsC - Vista coarse sandy loam, 2 to 8 percent slopes
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded
- VsF2 - Vista coarse sandy loam, 15 to 35 percent slopes, eroded
- YbC - Yokohl loam, 2 to 8 percent slopes
- YbD2 - Yokohl loam, 8 to 15 percent slopes, eroded
- YbE3 - Yokohl loam, 8 to 25 percent slopes, severely eroded
- YsE3 - Ysidora gravelly very fine sandy loam, 8 to 25 percent slopes, severely eroded

Sources: ESRI, Placeworks, NRCS (gSSURGO)
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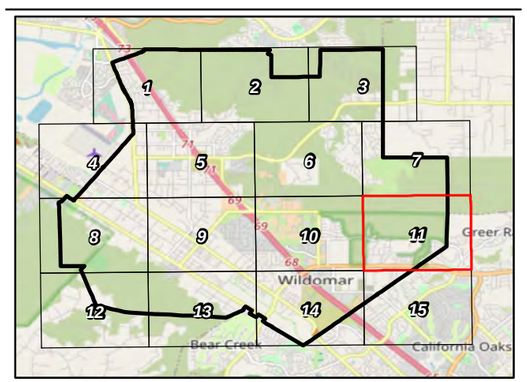

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Map Date: 11/3/2023

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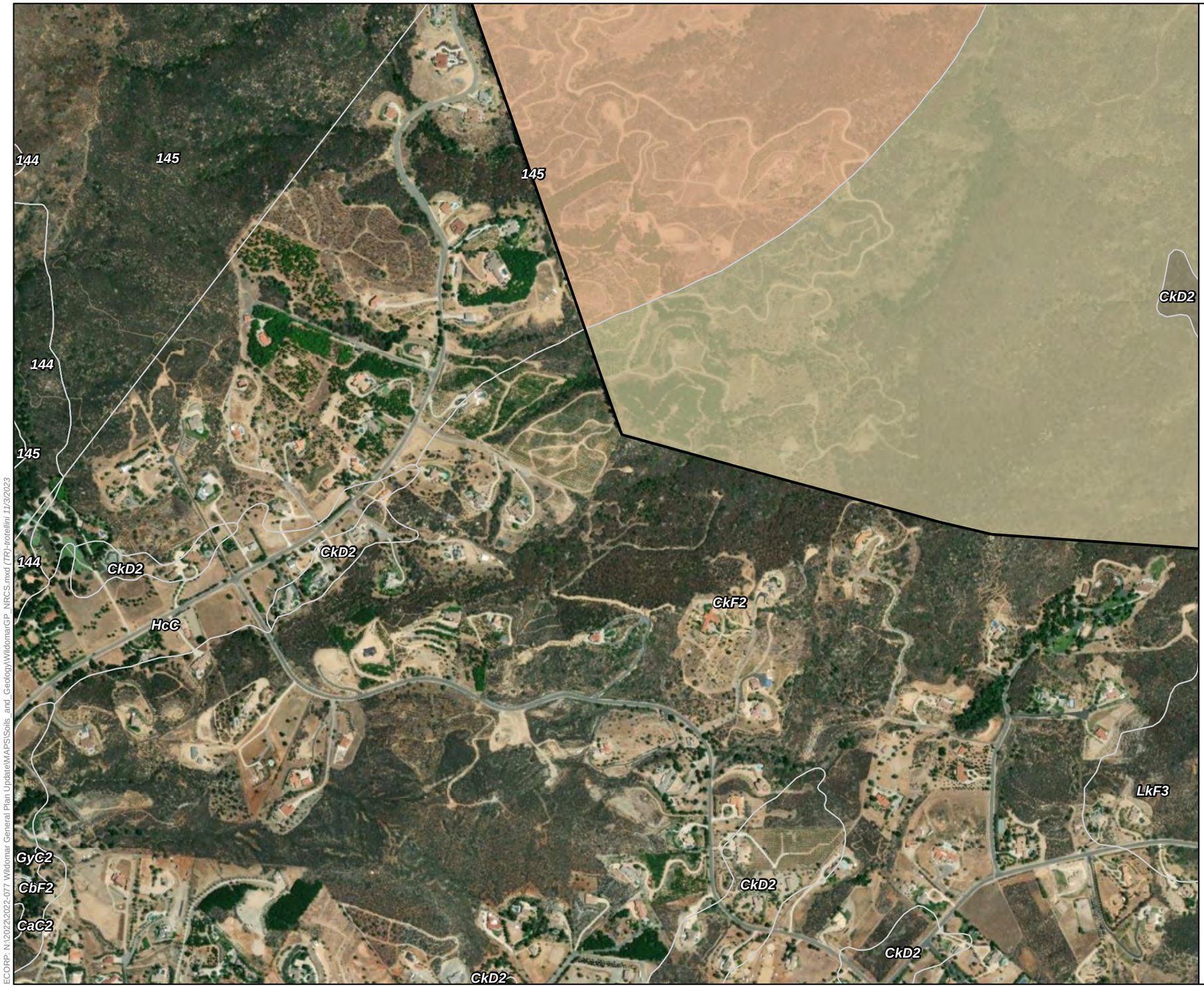
Scale in Feet
0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 11 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

Series Designation - Series Description

145 - Cieneba-Rock outcrop complex, 30 to 75 percent slopes

CkD2 - Cieneba rocky sandy loam, 8 to 15 percent slopes, eroded

CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded

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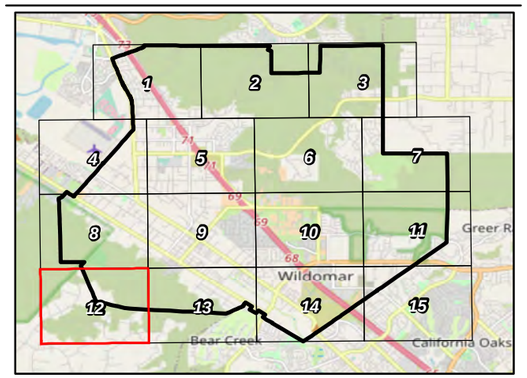

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Map Date: 11/3/2023

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Scale in Feet
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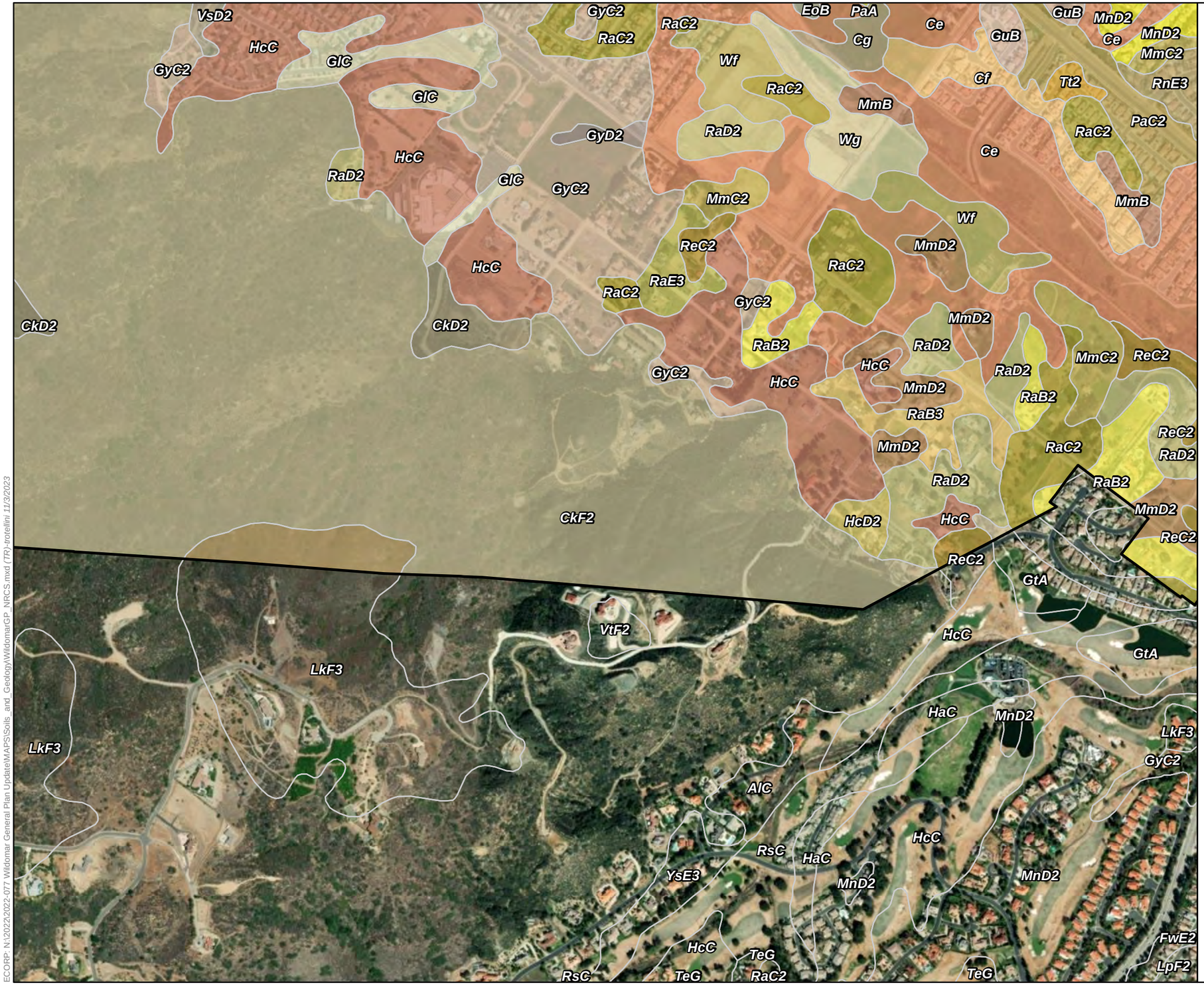
Figure 3. National Resources Conservation Service Soil Types
Sheet 12 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

Series Designation - Series Description

- Ce - Chino silt loam, drained
- Cf - Chino silt loam, drained, saline-alkali
- Cg - Chino silt loam, drained, strongly saline-alkali
- CkD2 - Cieneba rocky sandy loam, 8 to 15 percent slopes, eroded
- CkF2 - Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- EoB - Exeter sandy loam, slightly saline-alkali, 0 to 5 perce nt slopes
- GlC - Gorgonio loamy sand, deep, 2 to 8 percent slopes
- GtA - Grangeville fine sandy loam, drained, 0 to 2 percent sl opes
- GuB - Grangeville fine sandy loam, poorly drained, saline-alk ali, 0 to 5 percent slopes
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- GyD2 - Greenfield sandy loam, 8 to 15 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- LkF3 - Las Posas rocky loam, 15 to 50 percent slopes, severely eroded
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- PaA - Pachappa fine sandy loam, 0 to 2 percent slopes
- PaC2 - Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaB3 - Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaC2 - Ramona sandy loam, 5 to 8 percent slopes, eroded
- RaD2 - Ramona sandy loam, 8 to 15 percent slopes, eroded
- RaE3 - Ramona sandy loam, 15 to 25 percent slopes, severely eroded
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- RnE3 - Ramona and Buren loams, 5 to 25 percent slopes, severely eroded
- Tt2 - Traver fine sandy loam, strongly saline-alkali, eroded
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded
- Wf - Willows silty clay
- Wg - Willows silty clay, saline-alkali

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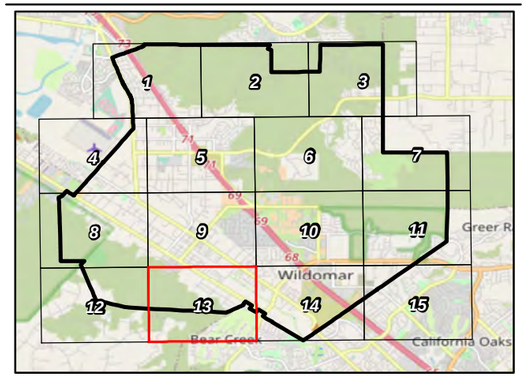

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Map Date: 11/3/2023

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ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 13 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Series Designation - Series Description

- AtC2 - Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes , eroded
- AtD2 - Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- Ce - Chino silt loam, drained
- Cf - Chino silt loam, drained, saline-alkali
- GtA - Grangeville fine sandy loam, drained, 0 to 2 percent sl opes
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- GzG - Gullied land
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HfD - Hanford sandy loam, 2 to 15 percent slopes
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- MmE3 - Monserate sandy loam, 15 to 25 percent slopes, severely eroded
- MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- MnE3 - Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
- PaC2 - Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- PlB - Placentia fine sandy loam, 0 to 5 percent slopes
- PlD - Placentia fine sandy loam, 5 to 15 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaB3 - Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaC2 - Ramona sandy loam, 5 to 8 percent slopes, eroded
- RaD2 - Ramona sandy loam, 8 to 15 percent slopes, eroded
- RdD2 - Ramona sandy loam, moderately deep, 8 to 15 percent slopes, eroded
- ReC2 - Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- RmE3 - Ramona and Buren sandy loams, 15 to 25 percent slopes, severely eroded
- RnD2 - Ramona and Buren loams, 5 to 15 percent slopes, eroded
- RnE3 - Ramona and Buren loams, 5 to 25 percent slopes, severely eroded
- RsC - Riverwash
- RuF - Rough broken land
- SmE2 - San Timoteo loam, 8 to 25 percent slopes, eroded
- TeG - Terrace escarpments
- TvC - Tujunga loamy sand, channeled, 0 to 8 percent slopes
- Wf - Willows silty clay

Sources: ESRI, Placeworks, NRCS (gSSURGO)
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
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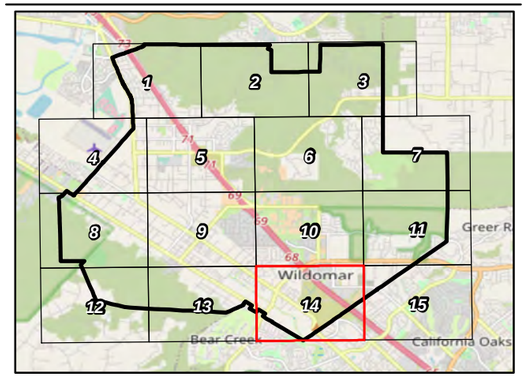

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Map Date: 11/3/2023

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0 750

Figure 3. National Resources Conservation Service Soil Types
Sheet 14 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Series Designation - Series Description

- AtC2 - Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes , eroded
- AtD2 - Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded
- AtF3 - Arlington and Greenfield fine sandy loams, 15 to 35 percent slopes, severely eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbD2 - Cajalco rocky fine sandy loam, 5 to 15 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- ChC - Cieneba sandy loam, 5 to 8 percent slopes
- ChD2 - Cieneba sandy loam, 8 to 15 percent slopes, eroded
- GzG - Gullied land
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- HfD - Hanford sandy loam, 2 to 15 percent slopes
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- LaE3 - Las Posas loam, 8 to 25 percent slopes, severely eroded
- LkD2 - Las Posas rocky loam, 8 to 15 percent slopes, eroded
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmD2 - Monserate sandy loam, 8 to 15 percent slopes, eroded
- MnD2 - Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- MnE3 - Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
- PlB - Placentia fine sandy loam, 0 to 5 percent slopes
- PlD - Placentia fine sandy loam, 5 to 15 percent slopes
- PsC - Porterville clay, moderately deep, 2 to 8 percent slopes
- RmE3 - Ramona and Buren sandy loams, 15 to 25 percent slopes, severely eroded
- RnE3 - Ramona and Buren loams, 5 to 25 percent slopes, severely eroded
- SmE2 - San Timoteo loam, 8 to 25 percent slopes, eroded

Sources: ESRI, Placeworks, NRCS (gSSURGO)
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
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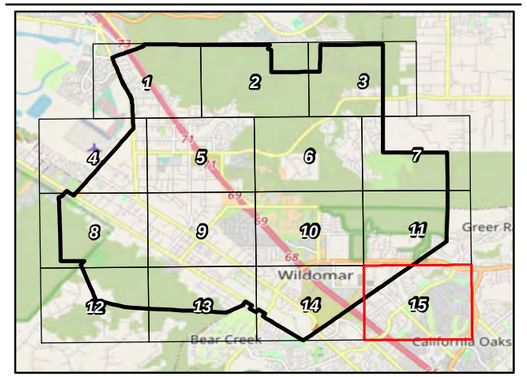

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Figure 3. National Resources Conservation Service Soil Types
Sheet 15 of 15
2022-077 City of Wildomar GP Update

4.3 Vegetation Communities and Land Cover Types

The City encompasses the foothills of the Santa Margarita Mountains and Elsinore Mountains and is located in the southwestern corner of Riverside County. Murrieta Creek flows through the western portion of the City, running north–south. The City is predominately developed; however, it does contain some additional land cover types and vegetation communities. Land cover types are primarily those that are not defined by a specific species of vegetation according to the CNPS.

The CNDDB database was reviewed to determine the general vegetation communities that occur within the City. Table 4 lists the general vegetation communities (collapsed and uncollapsed) and other land cover types within the City. Vegetation communities and land cover types according to the MSHCP are shown in Figure 4. It is important to note that the vegetation communities and land cover type descriptions that follow are according to broad community descriptions provided in the MSHCP. These descriptions are not representative of detailed vegetation communities within the City. Rather, they are generalized descriptions for the collapsed vegetation community/land cover type.

Table 4. Vegetation Communities and Land Cover Types

Vegetation Community/Land Cover Type – Collapsed	Vegetation Community/Land Cover Type – Uncollapsed
Agricultural Land	Dairy and Livestock Feedyards Field Croplands Grove/Orchard
Chaparral	Chamise Chaparral Chaparral Red Shank Chaparral Semi-Desert
Coastal Sage Scrub	Coastal Scrub Diegan Coastal Sage Scrub Riversidean Sage Scrub
Grassland	Nonnative Grassland Valley and Foothill Grassland
Meadows and Marshes	Meadow (Montane) Wet Montane Meadow Coastal and Valley Freshwater Marsh Marsh

Table 4. Vegetation Communities and Land Cover Types	
Vegetation Community/Land Cover Type – Collapsed	**Vegetation Community/Land Cover Type – Uncollapsed**
Riparian Scrub, Woodland, Forest	Arundo/Riparian Forest Montane Riparian Forest Montane Riparian Scrub Mulefat Scrub Riparian Forest Riparian Scrub Southern Cottonwood/Willow Riparian Southern Sycamore/Alder Riparian Woodland Southern Willow Scrub Tamarisk Scrub
Water	Open Water/Reservoir/Pond
Woodland and Forests	Black Oak Forest Broadleaved Upland Forest Coast Live Oak Woodland Oak Woodland Peninsular Juniper Woodland and Scrub
Developed/Disturbed	Residential/Urban/Exotic

4.3.1 Agricultural Land

Agricultural areas consist of any areas of the City that are under active cultivation, either irrigated or not. Areas mapped as agriculture include crop fields and orchards, dairy and livestock feedyards, field croplands, groves, and orchards.

4.3.2 Chaparral

This vegetation community is primarily shrub-dominated with evergreen species that range from 1 to 4 meters in height. Common shrubs associated with this general community include chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos* spp.), wild lilac (*Ceanothus* spp.), oak (*Quercus* sp.), redberry (*Rhamnus* sp.), laurel sumac (*Malosma laurina*), mountain mahogany (*Cercocarpus betuloides*), toyon (*Heteromeles arbutifolia*), mission manzanita (*Xylococcus bicolor*), California buckwheat (*Eriogonum fasciculatum*), sages (*Salvia* spp.), California sagebrush (*Artemisia californica*), and monkeyflower (*Mimulus* sp.). Herbaceous species are also common such as deerweed (*Acmispon glaber*), nightshade (*Solanum* sp.), Spanish bayonet (*Yucca baccata*), rock-rose (*Cistus* sp.), onion (*Allium* sp.), bunch grasses (*Festuca* spp.), wild cucumber (*Marah* sp.), bedstraw (*Galium* sp.), and lupine (*Lupinus* sp.).

Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Brittlebush - California Buckwheat Mapping Unit
- Brittlebush - California Sagebrush Association
- California Annual Grassland Alliance
- California Buckwheat Alliance
- California Sagebrush - California Buckwheat - (Black Sage - Yellow Bush Penstemon) Mapping Unit
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise - Hoaryleaf Ceanothus Alliance
- Deerweed Alliance
- Eucalyptus Alliance
- Exotic Trees Mapping Unit
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Vacant (disturbed bare ground, <2% vegetative cover) Mapping Unit
- White Sage - Brittlebush Association
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

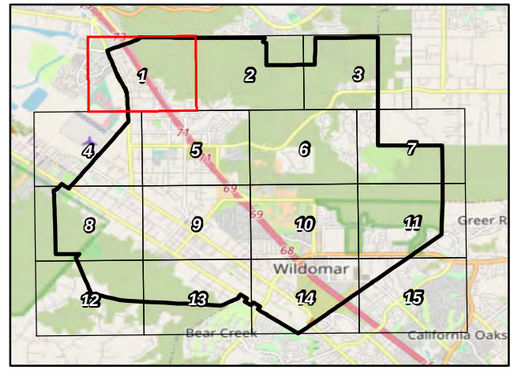

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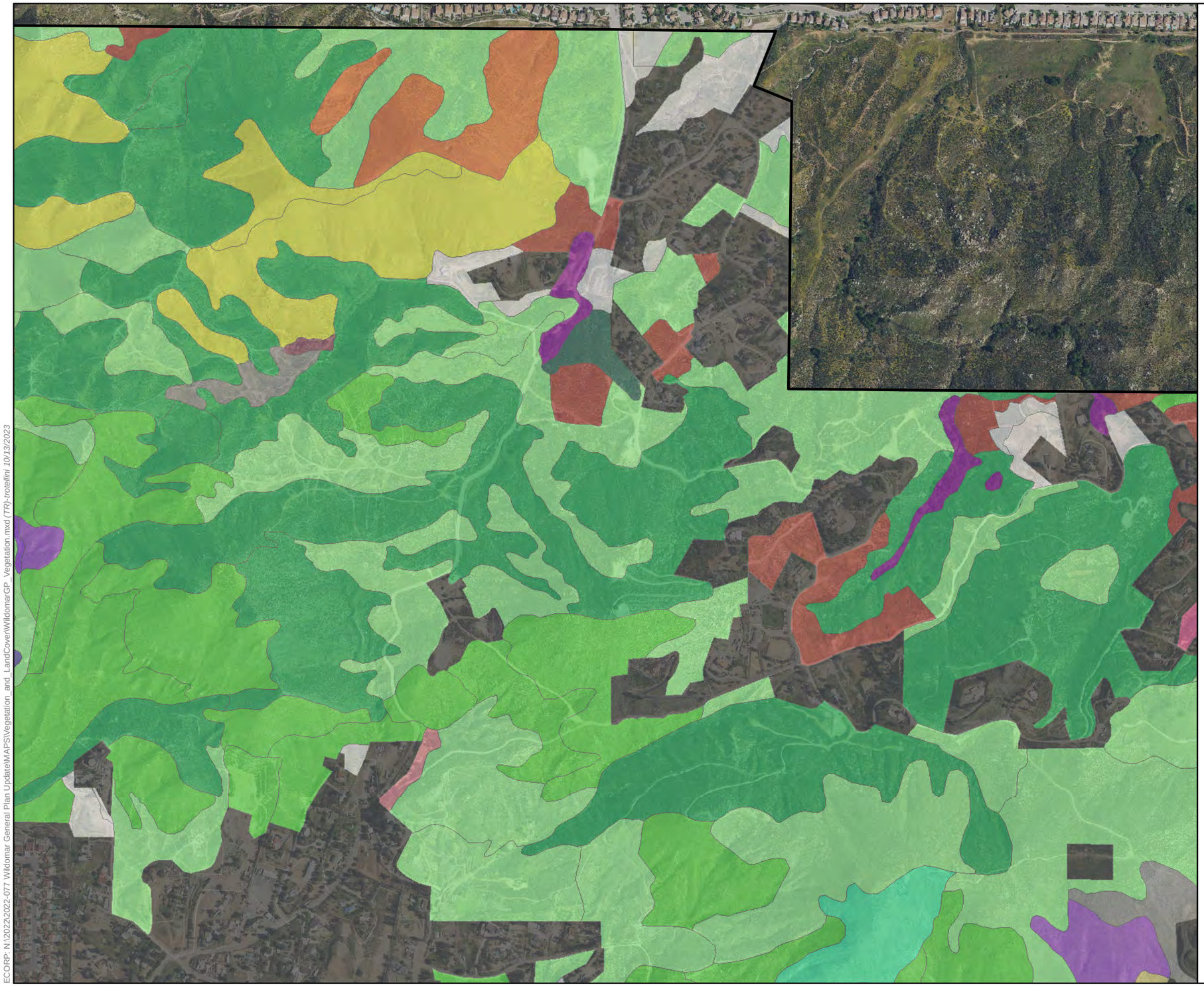
Figure 4. Vegetation Communities and Land Cover Types
Sheet 1 of 15
2022-077 City of Wildomar GP Update



Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Brittlebush - California Buckwheat Mapping Unit
- Brittlebush - California Sagebrush Association
- California Annual Grassland Alliance
- California Buckwheat Alliance
- California Sagebrush - California Buckwheat - (Black Sage - Yellow Bush Penstemon) Mapping Unit
- California Sagebrush - White Sage Alliance
- Chamise - Black Sage Alliance
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise - Hoaryleaf Ceanothus Alliance
- Chamise Pure Association
- Coast Live Oak / Chaparral Association
- Coast Live Oak Alliance
- Exotic Trees Mapping Unit
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Vacant (disturbed bare ground, <2% vegetative cover) Mapping Unit
- White Sage - Brittlebush Association
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

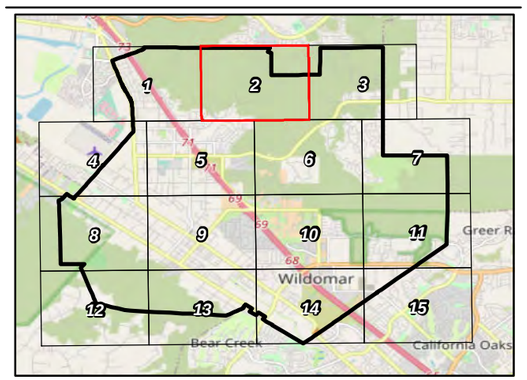


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Figure 4. Vegetation Communities and Land Cover Types
Sheet 2 of 15
2022-077 City of Wildomar GP Update

Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Brittlebush - California Buckwheat Mapping Unit
- Brittlebush - California Sagebrush Association
- California Annual Grassland Alliance
- California Buckwheat Alliance
- California Sagebrush - California Buckwheat - (Black Sage - Yellow Bush Penstemon) Mapping Unit
- California Sycamore Alliance
- Chamise - Black Sage Alliance
- Chamise - California Buckwheat Association
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise Alliance
- Chamise Pure Association
- Coast Live Oak / Chaparral Association
- Coast Live Oak / Poison Oak Riparian Association
- Coast Live Oak Alliance
- Eucalyptus Alliance
- Fremont Cottonwood - Willow Mapping Unit
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Vacant (disturbed bare ground, <2% vegetative cover) Mapping Unit
- Water Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

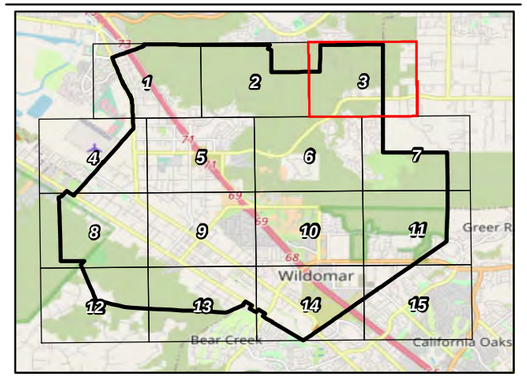

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 3 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Urban Interface Mapping Unit
- Urban or development Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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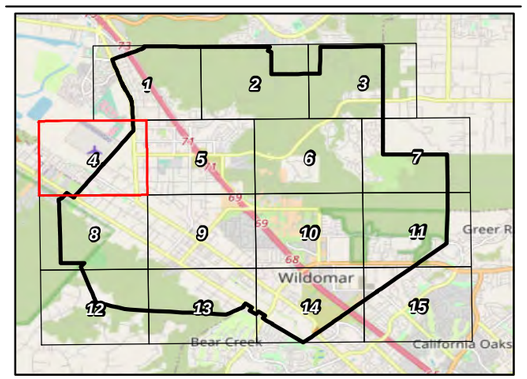

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 4 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Brittlebush - California Buckwheat Mapping Unit
- California Buckwheat Alliance
- California Sagebrush - (California Buckwheat) - Annual Grass-Herb Mapping Unit
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise - Hoaryleaf Ceanothus Alliance
- Coast Live Oak Alliance
- Exotic Trees Mapping Unit
- Fremont Cottonwood - Willow Mapping Unit
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Vacant (disturbed bare ground, <2% vegetative cover) Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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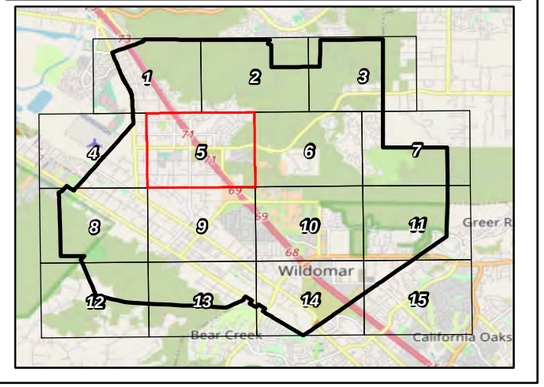

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 5 of 15
2022-077 City of Wildomar GP Update

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Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Brittlebush - California Buckwheat Mapping Unit
- Brittlebush - California Sagebrush Association
- California Annual Grassland Alliance
- California Buckwheat - Brittlebush Alliance
- California Buckwheat Alliance
- California Sycamore Alliance
- Chamise - Black Sage Alliance
- Chamise - California Buckwheat Association
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise - Hoaryleaf Ceanothus Alliance
- Chamise - Laurel Sumac Association
- Chamise Pure Association
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Coast Live Oak / Chaparral Association
- Coast Live Oak Alliance
- Eucalyptus Alliance
- Exotic Trees Mapping Unit
- Hoaryleaf Ceanothus Alliance
- Laurel Sumac - California Buckwheat Association
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Vacant (disturbed bare ground, <2% vegetative cover) Mapping Unit
- Water Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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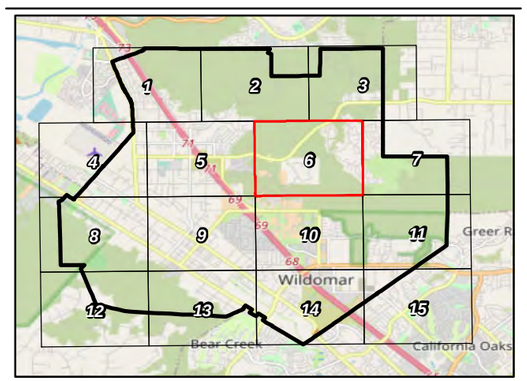

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 6 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Vegetation Communities and Land Cover Types

- California Annual Grassland Alliance
- California Buckwheat - White Sage - (California Sagebrush) Mapping Unit
- California Buckwheat Alliance
- California Sagebrush - California Buckwheat - Laurel Sumac Association
- Chamise - Black Sage Alliance
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise - Laurel Sumac Association
- Chamise Pure Association
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Coast Live Oak / Chaparral Association
- Coast Live Oak Alliance
- Eucalyptus Alliance
- Laurel Sumac Alliance
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Water Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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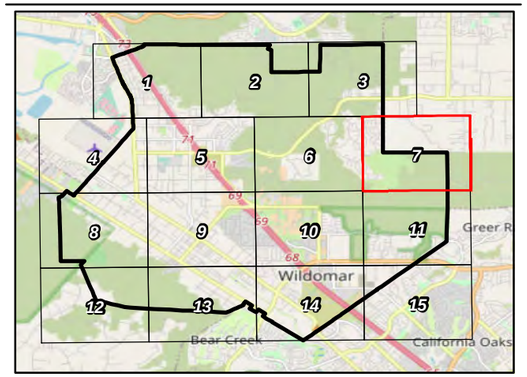

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 7 of 15
2022-077 City of Wildomar GP Update

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Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Brittlebush - California Buckwheat Mapping Unit
- California Annual Grassland Alliance
- California Buckwheat Alliance
- California Chaparral Mapping Unit
- Chamise - Black Sage Alliance
- Chamise - California Buckwheat Association
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus Alliance
- Chamise - Laurel Sumac Association
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Coast Live Oak Alliance
- Deerweed Alliance
- Laurel Sumac - California Buckwheat Association
- Unmapped Area
- Urban Interface Mapping Unit
- Urban or development Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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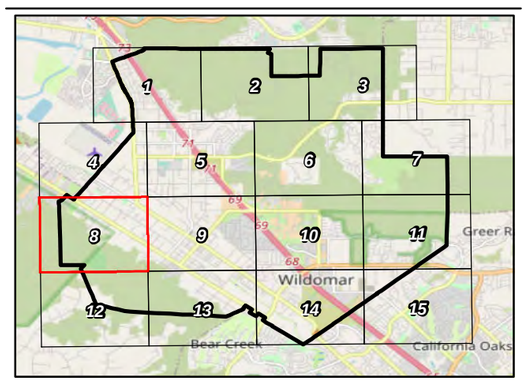

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 8 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Brittlebush - California Buckwheat Mapping Unit
- California Annual Grassland Alliance
- California Buckwheat Alliance
- Chamise - California Buckwheat Association
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus Alliance
- Eucalyptus Alliance
- Exotic Trees Mapping Unit
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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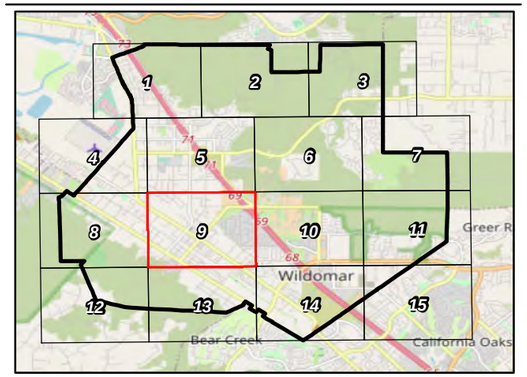

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 9 of 15
2022-077 City of Wildomar GP Update

Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Blue Elderberry - (Mulefat) Mapping Unit
- Brittlebush - California Buckwheat Mapping Unit
- California Annual Grassland Alliance
- California Buckwheat - Brittlebush Alliance
- California Buckwheat Alliance
- California Sagebrush - (California Buckwheat) - Annual Grass-Herb Mapping Unit
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise - Laurel Sumac Association
- Chamise Alliance
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Coast Live Oak / Chaparral Association
- Coast Live Oak Alliance
- Eucalyptus Alliance
- Exotic Trees Mapping Unit
- Fremont Cottonwood - Willow Mapping Unit
- Hoaryleaf Ceanothus Alliance
- Laurel Sumac - California Buckwheat Association
- Red Willow Alliance
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Vacant (disturbed bare ground, <2% vegetative cover) Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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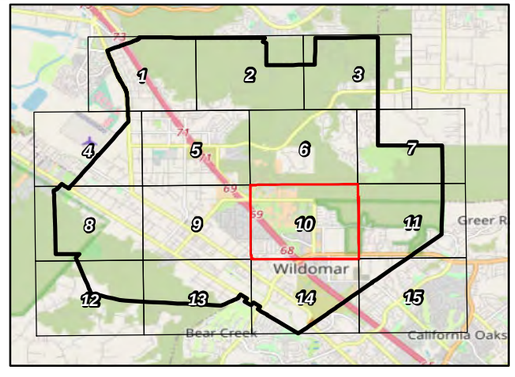

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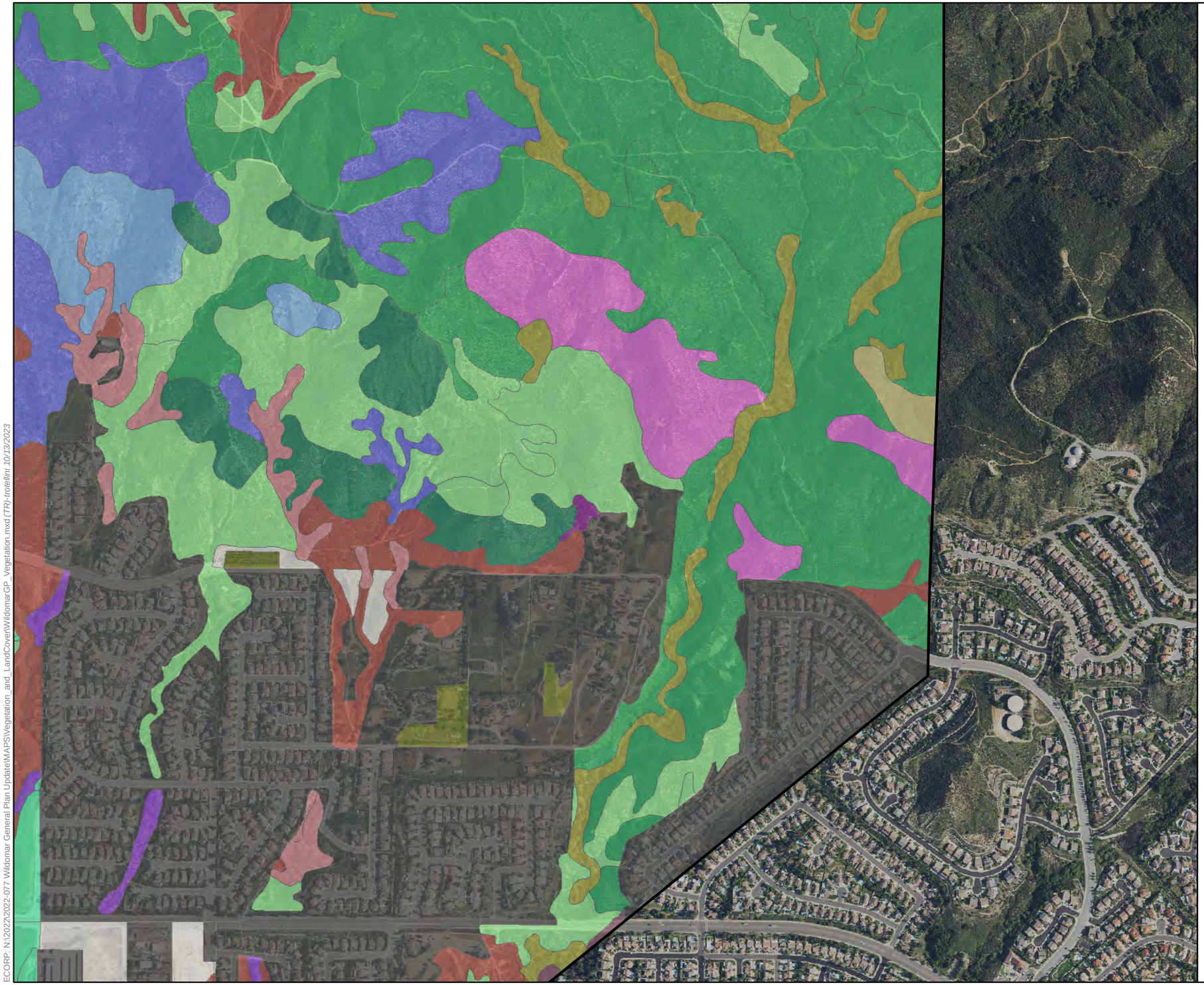
Scale in Feet
0 750

Figure 4. Vegetation Communities and Land Cover Types
Sheet 10 of 15
2022-077 City of Wildomar GP Update



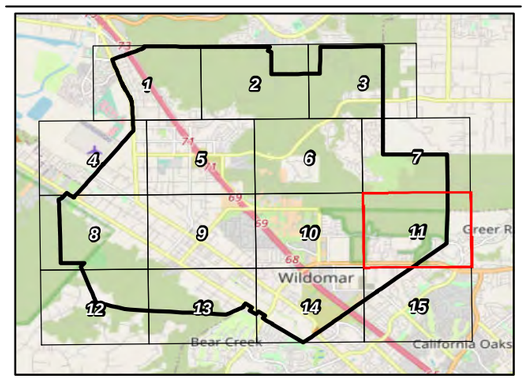
Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- California Annual Grassland Alliance
- California Buckwheat - Brittlebush Alliance
- California Buckwheat Alliance
- Chamise - Black Sage Alliance
- Chamise - California Buckwheat Association
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise - Laurel Sumac Association
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Coast Live Oak / Chaparral Association
- Coast Live Oak / Poison Oak Riparian Association
- Coast Live Oak Alliance
- Exotic Trees Mapping Unit
- Hoaryleaf Ceanothus - Laurel Sumac Association
- Laurel Sumac - California Buckwheat Association
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



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Map Date: 10/13/2023

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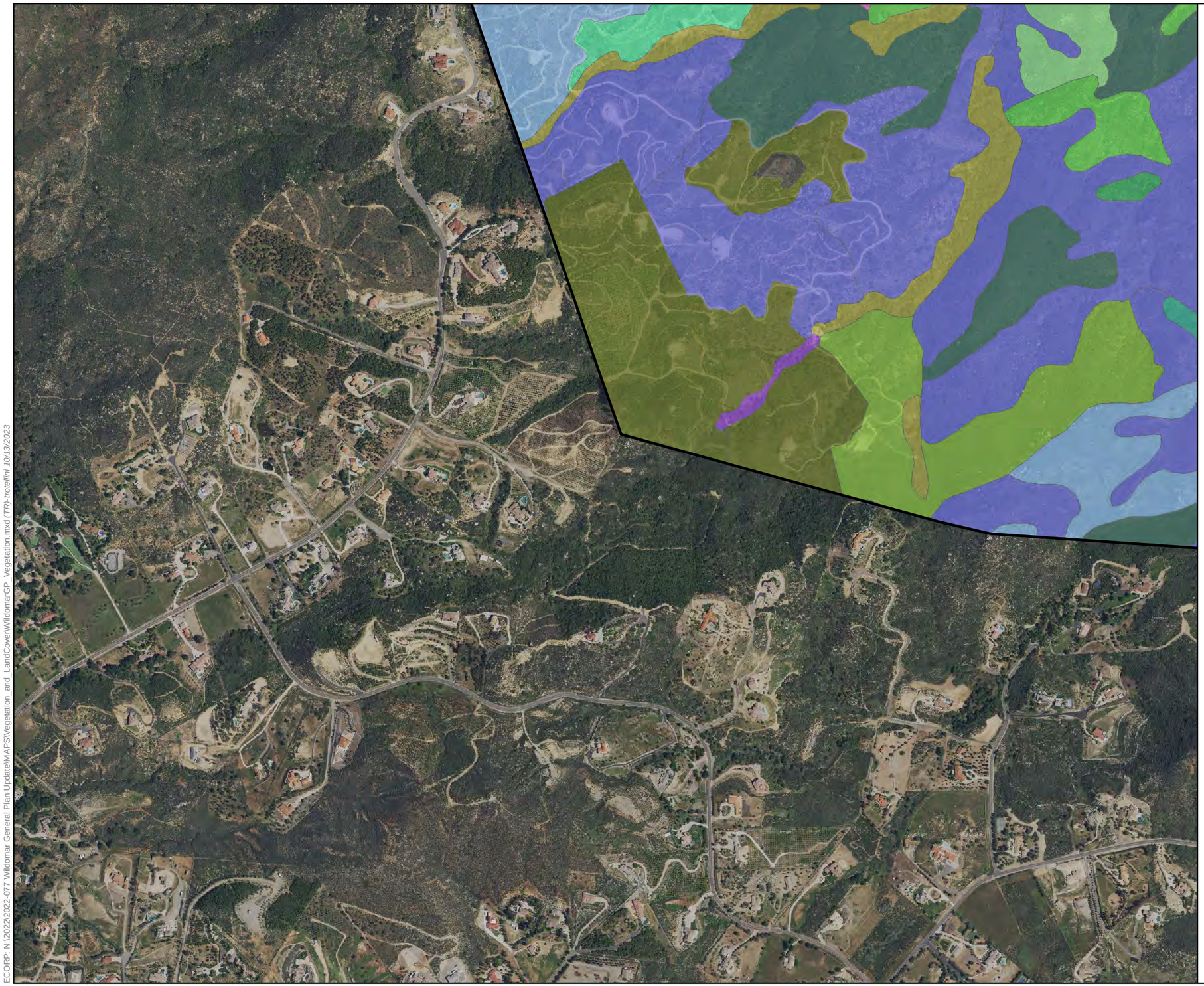
Figure 4. Vegetation Communities and Land Cover Types
Sheet 11 of 15
2022-077 City of Wildomar GP Update



Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Brittlebush - California Buckwheat Mapping Unit
- California Annual Grassland Alliance
- Chamise - California Buckwheat Association
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus - Black Sage Association
- Chamise - Hoaryleaf Ceanothus Alliance
- Chamise - Laurel Sumac Association
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Hoaryleaf Ceanothus - Laurel Sumac Association
- Laurel Sumac - California Buckwheat Association
- Scrub Oak - Southern Mixed Chaparral Association
- Urban or development Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

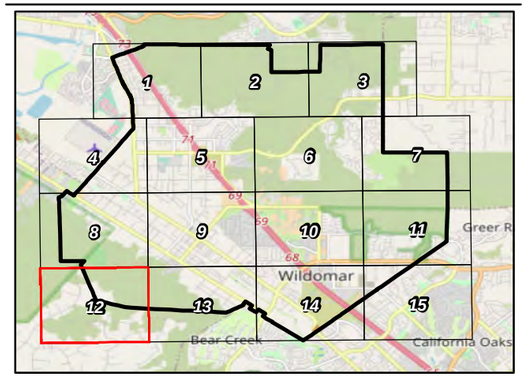


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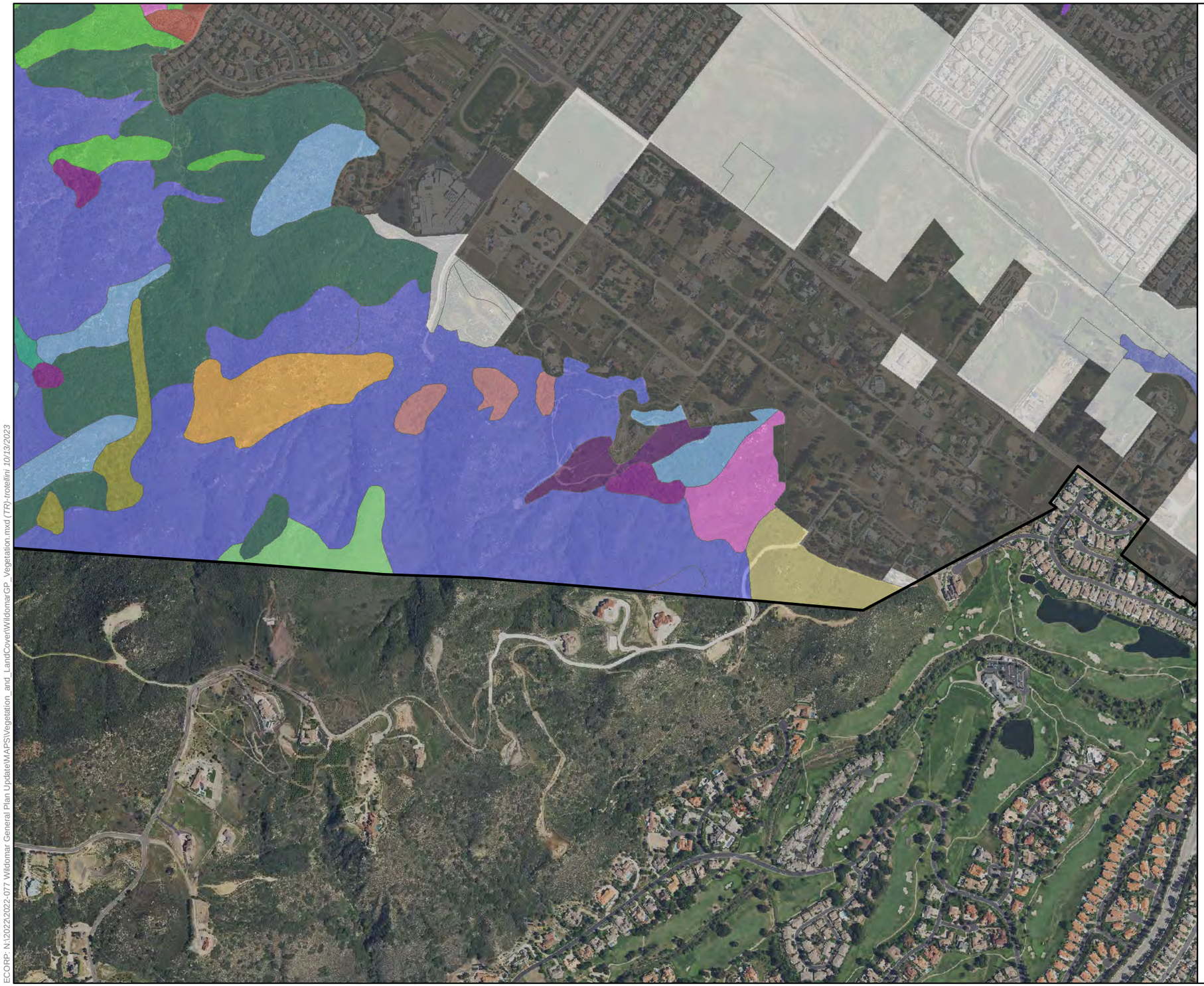
Figure 4. Vegetation Communities and Land Cover Types
Sheet 12 of 15
2022-077 City of Wildomar GP Update



Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Brittlebush - California Buckwheat Mapping Unit
- California Buckwheat Alliance
- California Sagebrush - (California Buckwheat) - Annual Grass-Herb Mapping Unit
- Chamise - Black Sage Alliance
- Chamise - California Buckwheat Association
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise - Hoaryleaf Ceanothus Alliance
- Chamise - Laurel Sumac Association
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Coast Live Oak / Chaparral Association
- Coast Live Oak Alliance
- Laurel Sumac - California Buckwheat - White Sage Association
- Laurel Sumac - California Buckwheat Association
- Red Willow Alliance
- Scrub Oak - Southern Mixed Chaparral Association
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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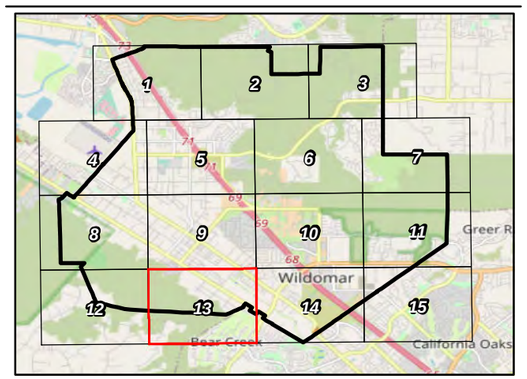

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 13 of 15
2022-077 City of Wildomar GP Update

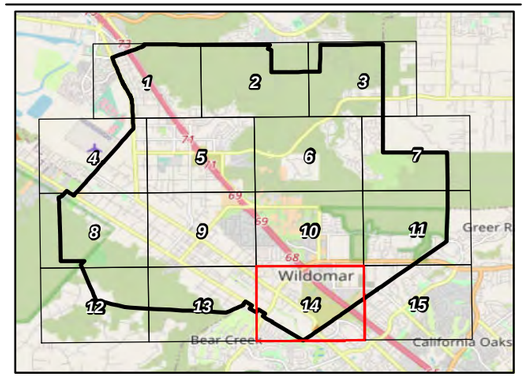
Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- Annual Herbaceous Grasslands and Forbs Mapping Unit
- Bulrush - Cattail Mapping Unit
- California Annual Grassland Alliance
- California Buckwheat Alliance
- California Sagebrush - (California Buckwheat) - Annual Grass-Herb Mapping Unit
- California Sagebrush - California Buckwheat - White Sage Association
- Chamise - Black Sage Alliance
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Chamise Pure Association
- Coast Live Oak - California Sycamore - Red Willow Association
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Coast Live Oak / Chaparral Association
- Coast Live Oak / Poison Oak Riparian Association
- Coast Live Oak Alliance
- Eucalyptus Alliance
- Exotic Trees Mapping Unit
- Fremont Cottonwood - Red Willow / Arroyo Willow / Mulefat Association
- Fremont Cottonwood - Willow Mapping Unit
- Fremont Cottonwood Dry Mapping Unit
- Red Willow Alliance
- Scrub Oak - Chamise Alliance
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Vacant (disturbed bare ground, <2% vegetative cover) Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



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Map Date: 10/13/2023

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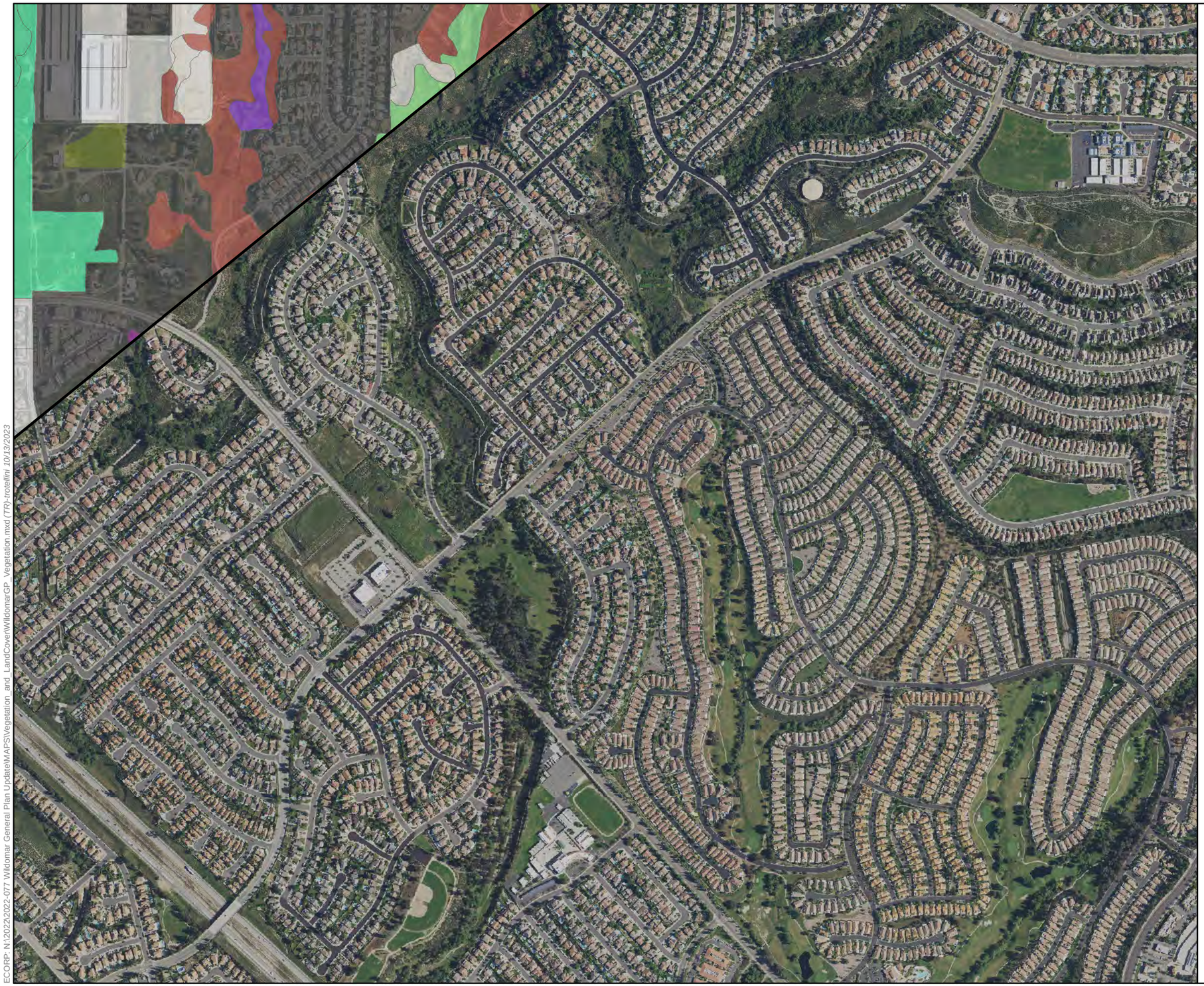
0 750

Figure 4. Vegetation Communities and Land Cover Types
Sheet 14 of 15
2022-077 City of Wildomar GP Update



Map Features

- Wildomar City Limits

Vegetation Communities and Land Cover Types

- Agriculture Mapping Unit
- California Annual Grassland Alliance
- California Buckwheat Alliance
- Chamise - Coastal Sage Scrub Disturbance Mapping Unit
- Coast Live Oak - Sycamore Riparian Mapping Unit
- Coast Live Oak Alliance
- Exotic Trees Mapping Unit
- Urban Interface Mapping Unit
- Urban or development Mapping Unit
- Willow Mapping Unit

Sources: NAIP (2020), Western Riverside County Regional Conservation Authority Vegetation (2012 CNPS)
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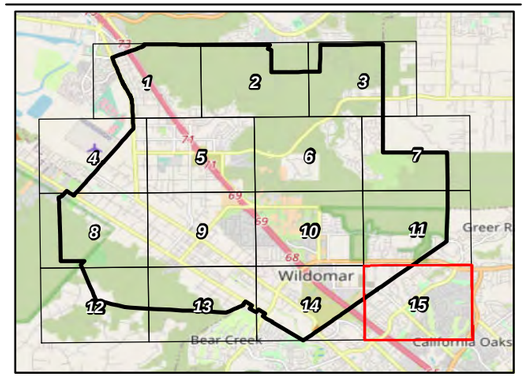

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Map Date: 10/13/2023

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Figure 4. Vegetation Communities and Land Cover Types
Sheet 15 of 15
2022-077 City of Wildomar GP Update

4.3.3 Coastal Sage Scrub

This vegetation community is often found in distributed within other vegetation communities such as grassland and chapparal and oak or riparian woodlands. This community is often dominated by drought-deciduous shrub and subshrub species. Species commonly associated with this community include California sagebrush, California buckwheat, laurel sumac, sages, brittlebush (*Encelia farinosa*), lemonade berry (*Rhus integrifolia*), boxthorn (*Lycium* sp.), and sugarbush (*Rhus ovata*).

4.3.4 Grassland

This vegetation community can consist of two general types of grasslands: non-native dominated grassland dominated by annual grasses and native grassland dominated by perennial grass species. The latter is often referred to as Valley and Foothill Grassland while the former is referred to as Non-Native Grassland.

Within Valley and Foothill Grassland, common species include fiddleneck (*Amsinckia menziesii*), common calyptridium (*Calyptridium monospermum*), suncup (*Camissoniopsis* sp.), Chinese houses (*Collinsia heterophylla*), California poppy (*Eschscholzia californica*), tarweed (*Hemizonia* sp.), coast goldfields (*Lasthenia californica*), common tidy-tips (*Layia platyglossa*), lupine (*Lupinus* sp.), wild hyacinth (*Dichelostemma capitatum*), and blue-eyed grass (*Sisyrinchium bellum*).

Within Non-Native Grassland, common species include slender oat (*Avena barbata*), wild oat (*Avena fatua*), fox tail chess (*Bromus madritensis*), soft chess (*Bromus hordeaceus*), ripgut grass (*Bromus diandrus*), barley (*Hordeum* sp.), rye grass (*Lolium multiflorum*), English ryegrass (*Lolium perrene*), rat-tail fescue (*Vulpia myuros*), and Mediterranean grass (*Schismus barbatus*). These species are often within landscapes that persist in disturbed areas.

4.3.5 Meadows and Marshes

These vegetation communities are associated with the presence of flowing or standing water. Common species included within these communities include cattails (*Typha* sp.), bulrush (*Scirpus* sp.), sedges (*Carex* sp.), spike rushes (*Eleocharis* sp.), flat sedges (*Cyperus* sp.), smartweed (*Polygonum* sp.), watercress (*Nasturtium* sp.), and yerba mansa (*Anemopsis californica*).

4.3.6 Riparian Scrub, Woodland, and Forest

These vegetation communities are often found within waterways and drainages. These communities often consist of one or more deciduous tree species with a variety of shrubs and herbs in the understory. Common tree species within this community include box elder (*Acer negundo*), big-leaf maple (*Acer macrophyllum*), coast live oak (*Quercus agrifolia*), white alder (*Alnus rhombifolia*), sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), California walnut (*Juglans californica*), blue elderberry (*Sambucus mexicana*), wild grape (*Vitis girdiana*), giant reed (*Arundo donax*), mulefat (*Baccharis salicifolia*), tamarisk (*Tamarix* sp.), and willows (*Salix* sp.). Within the understory, species such as salt grass (*Distichlis spicata*), wild cucumber (*Marah macrocarpus*), mugwort (*Artemisia douglasiana*), stinging nettle (*Urtica dioica*), and poison oak (*Toxicodendron diversilobum*) may be present.

4.3.7 Water

Open water is typically unvegetated, however, it may have algae and some floating plant species such as duckweed (*Lemna* sp.), and mosquito fern (*Azolla filiculoides*). Open water included inland depressions, lakes, ponds, reservoirs, stream channels, and other areas commonly present with riparian vegetation communities.

4.3.8 Woodland and Forests

These communities are often dominated by Englemann oak (*Quercus engelmannii*), coast live oak, canyon live oak (*Quercus chrysolepis*), interior live oak (*Quercus wislizeni*), and black oak (*Quercus kelloggii*) in a canopy that is intermittent to continuous. Other tree species that may be present include pinyon (*Pinus* sp.) and California juniper (*Juniperus californica*). The understory can often contain species such as wild blackberry (*Rubus* sp.), snowberry (*Symphoricarpos* sp.), California walnut, California lilac (*Ceanothus* sp.), currant (*Ribes* sp.), toyon (*Heteromeles arbutifolia*), California bay (*Umbellularia californica*), manzanita (*Arctostaphylos* sp.), laurel sumac, poison oak, and herbaceous plants such as miner's lettuce (*Claytonia perfoliata*). These communities often occur along canyon bottoms and stream sides.

4.3.9 Developed/Disturbed

Developed/disturbed areas include forms of human development that have an impact on native communities, in some cases permanent impacts that cause a complete loss or conversion of native communities. Developed areas include buildings (residential and commercial) and other infrastructures, some smaller landscaped areas, roads, and paved areas. Paved parking areas, and driveways are included in the developed category. Retention basins associated with development are also included in this category. Many developed and disturbed areas contain non-native species and/or ornamental species.

Areas devoid or mostly devoid of vegetation and containing no buildings or other development were classified as disturbed. The disturbed designation indicates a location that may be actively maintained to be free of vegetation or that has been compacted to such a degree that vegetation is very sparse. Disturbed areas include areas that include dirt roads, off-highway vehicle use, bare soils, concrete, and flood control measures.

4.4 Aquatic Resources

Wetlands and waters, as well as vegetation communities associated with these features (e.g., riparian vegetation), may occur throughout the City and will commonly be associated with streambeds, drainages, and channels (i.e., Murrieta Creek). Features identified in the NWI can be seen in Figure 5. Riverine, Freshwater Ponds, Freshwater Emergent Wetlands, and Freshwater Forested/Shrub Wetland features are documented in NWI. These features have the potential to provide corridors that encourage the movement of wildlife and provide habitat for sensitive wildlife and plant species.

An aquatic resources delineation was not conducted for this General Plan Update; however, listed below are general descriptions of types of aquatic resources that may be present.

4.4.1.1 Open Water

Open water communities may include large reservoirs, small ponds, and riverine habitats. A general description of these types of open water communities is provided below.

Reservoirs

Reservoirs are one type of open water feature that are often large natural areas or artificial lakes that provide a source of water supply. Reservoirs may also serve as recreational sites.

Ponds

Ponds are one type of lacustrine habitat that include areas of shallow open water, although areas of rooted freshwater marsh or floating plants may occur within this habitat. Ponds may be naturally occurring or artificial for stock and other uses.

Drainages

Drainages can include perennial or ephemeral resources such as creeks. These often will flow into larger water features such as a river, a watershed, or a reservoir. Artificial canals and irrigation ditches can also fall into this category. Drainages are typically associated with riparian habitat (described in Section 4.3.6) and may support areas of freshwater marsh.

4.4.1.2 Wetlands

Wetlands can be subclassified in a variety of ways. Three main categories of wetlands are described below: freshwater marsh, wet meadow, and vernal pool.

Freshwater Marsh

Freshwater marsh often occurs along the margins of drainages and open water habitats. They are non-tidal and are often continuously or frequently flooded. They often occur in nutrient-rich soils that are slow-draining and often saturated.

Wet Meadow

Wet meadow habitat often occurs at higher elevations in the eastern portion of the City. Dominant species in wet meadows include herbaceous wetland plants, such as sedges, rushes, spike rush, bent grass (*Agrostis* spp.), and oatgrass (*Danthonia* spp.). There are generally sparse or no shrubs or trees in wet meadows.

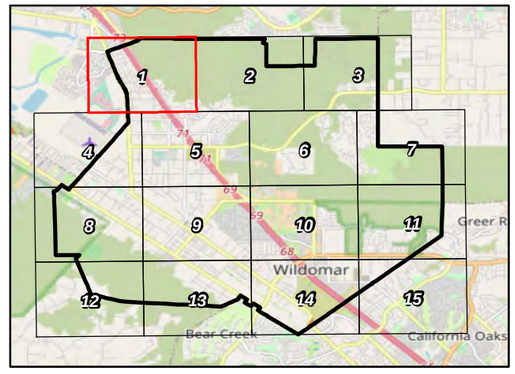
Map Features

Wildomar City Limits

NWI Features

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Sources: NAIP (2020), NWI (2020)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



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0 750

Figure 5. National Wetlands Inventory
Sheet 1 of 15
2022-077 City of Wildomar GP Update

Map Features

- Wildomar City Limits

NWI Features

- Freshwater Pond
- Riverine

Sources: NAIP (2020), NWI (2020)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

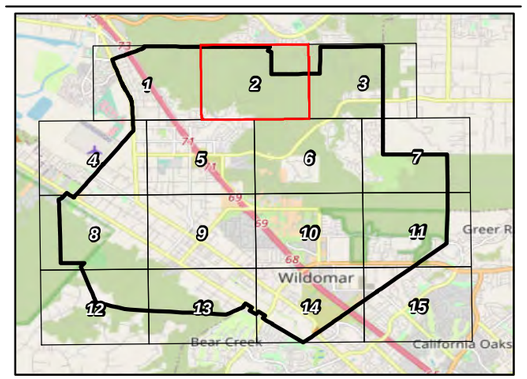

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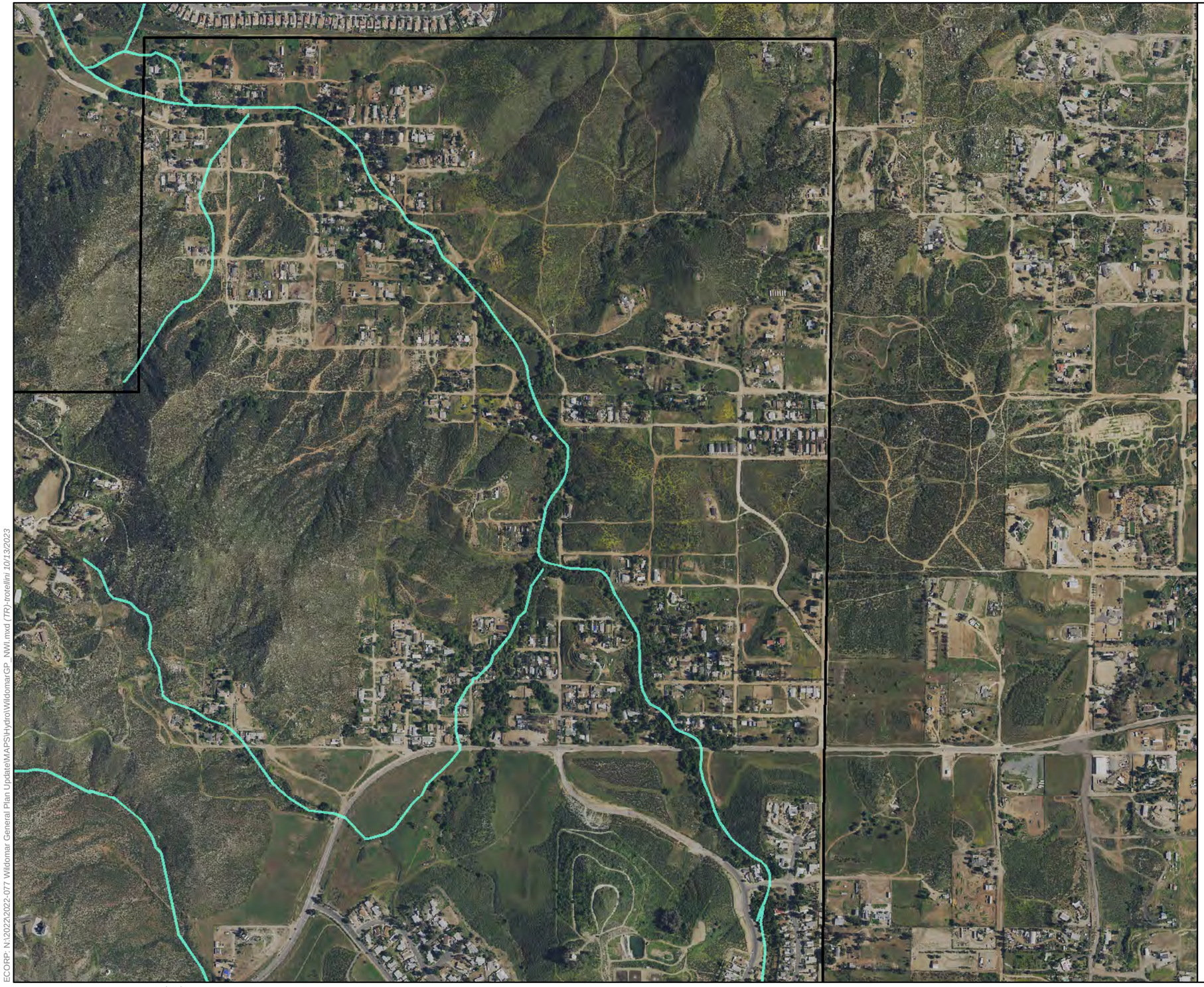
Figure 5. National Wetlands Inventory
Sheet 2 of 15
2022-077 City of Wildomar GP Update



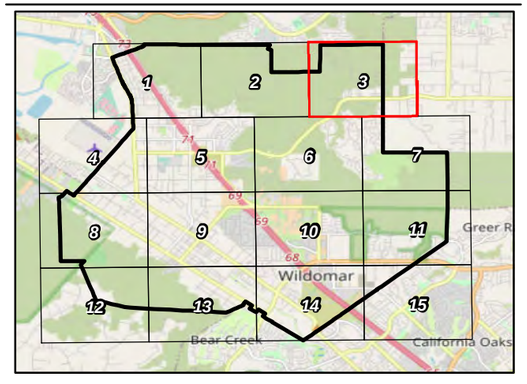
Map Features

Wildomar City Limits

NWI Features

Riverine

Sources: NAIP (2020), NWI (2020)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



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Map Date: 10/13/2023

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Figure 5. National Wetlands Inventory
Sheet 3 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

NWI Features

Freshwater Forested/Shrub Wetland

Sources: NAIP (2020), NWI (2020)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

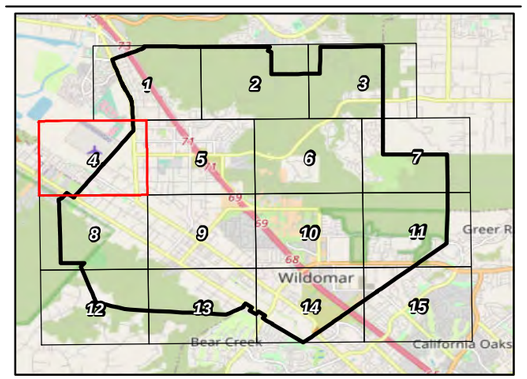

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Figure 5. National Wetlands Inventory
Sheet 4 of 15
2022-077 City of Wildomar GP Update

Map Features

- Wildomar City Limits

NWI Features

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Sources: NAIP (2020), NWI (2020)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

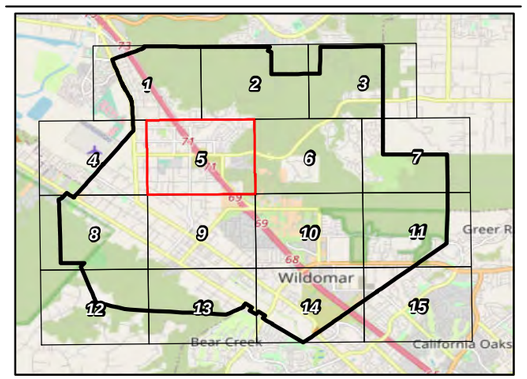

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Figure 5. National Wetlands Inventory
Sheet 5 of 15
2022-077 City of Wildomar GP Update

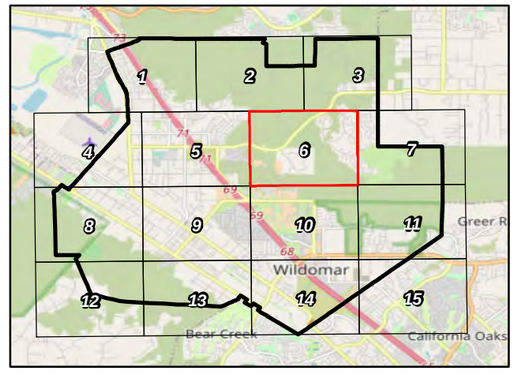
Map Features

Wildomar City Limits

NWI Features

Riverine

Sources: NAIP (2020), NWI (2020)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



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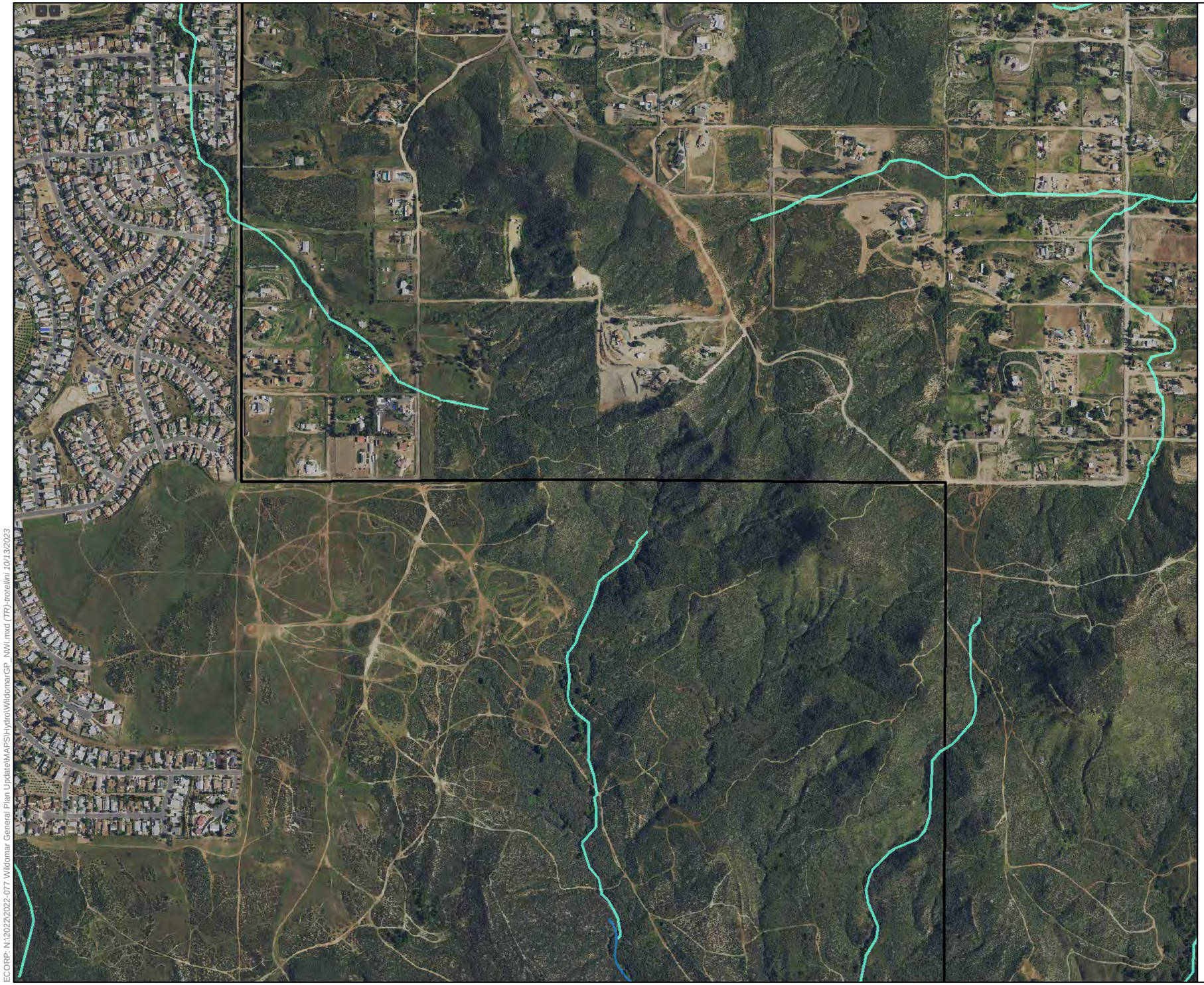
Scale in Feet
0 750

Figure 5. National Wetlands Inventory
Sheet 6 of 15
2022-077 City of Wildomar GP Update



Map Features

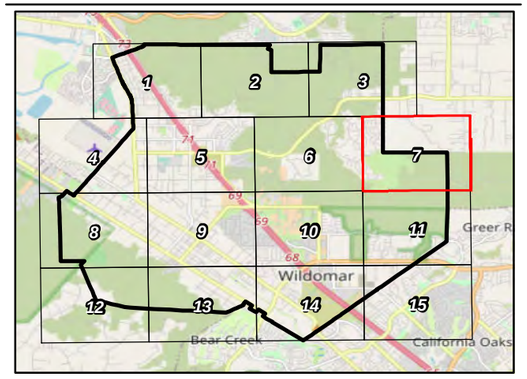
Wildomar City Limits

NWI Features

Freshwater Forested/Shrub Wetland

Riverine

Sources: NAIP (2020), NWI (2020)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



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Scale in Feet
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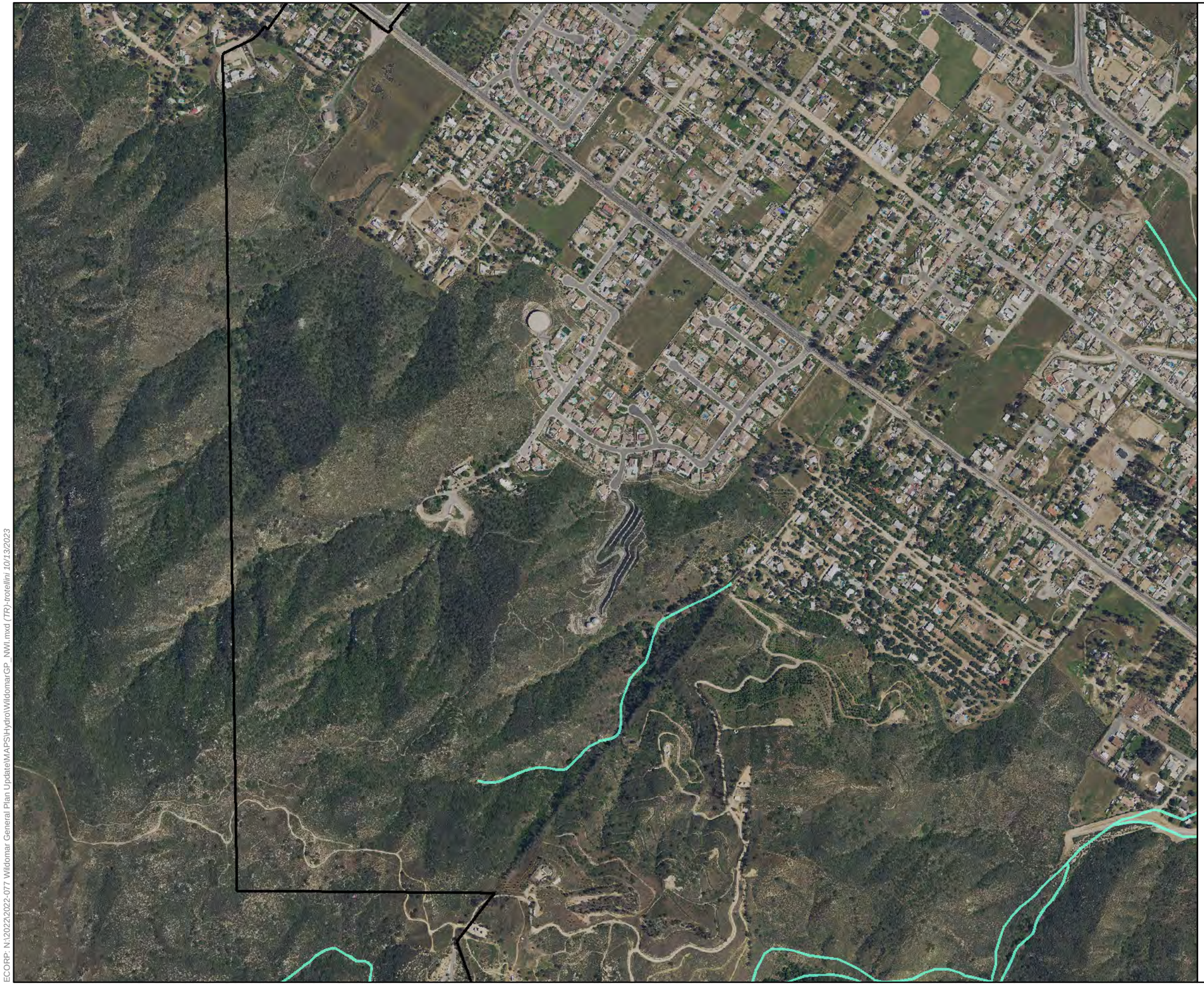
Figure 5. National Wetlands Inventory
Sheet 7 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

NWI Features

Riverine

Sources: NAIP (2020), NWI (2020)
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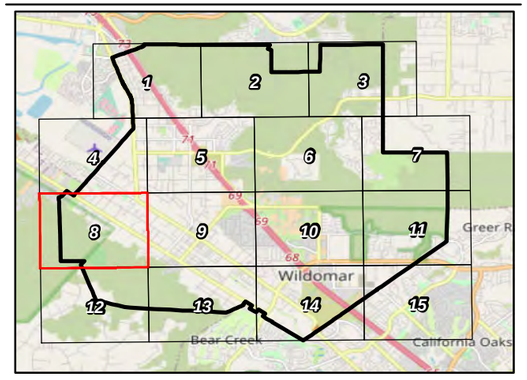

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Map Date: 10/13/2023

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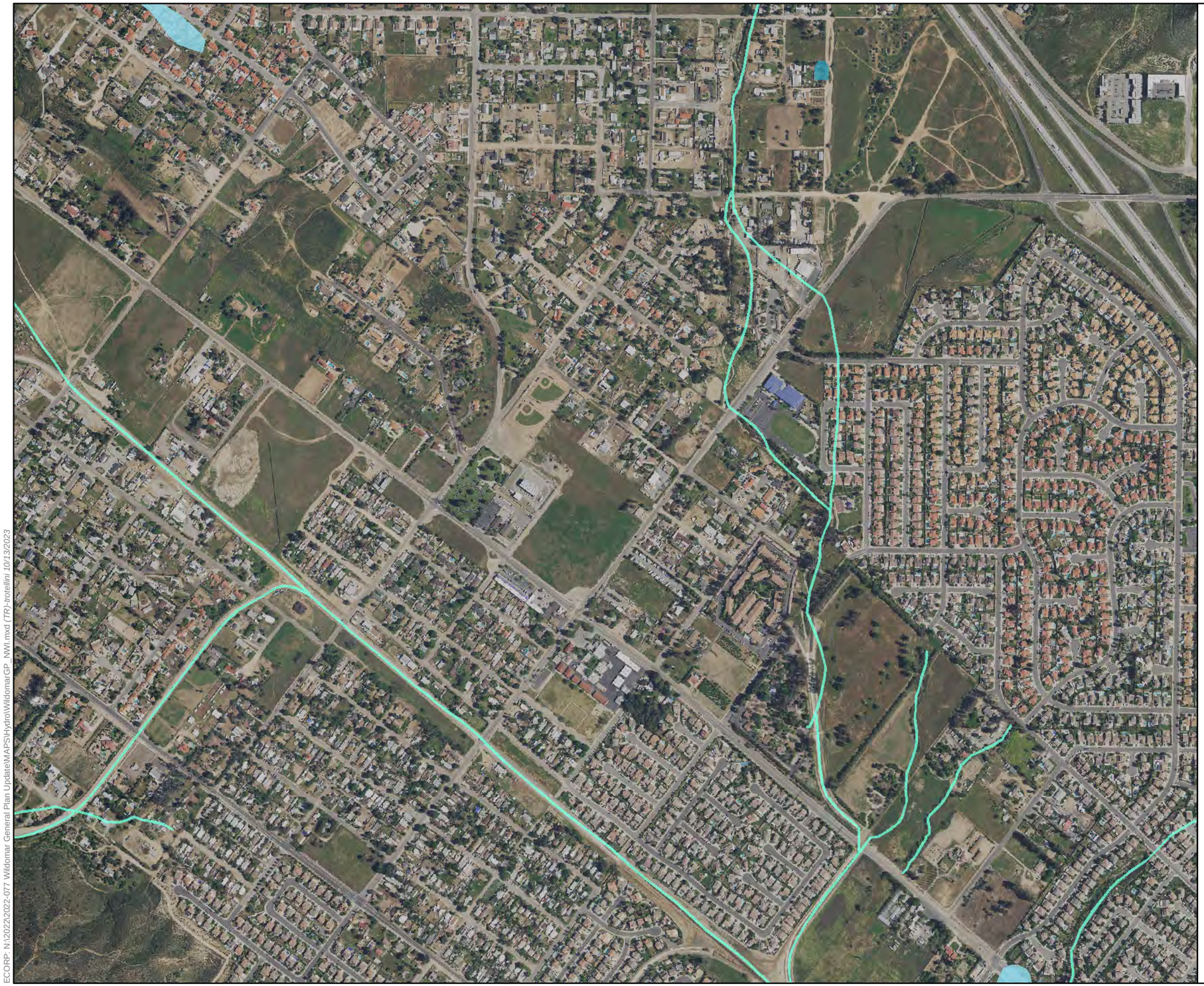
Scale in Feet
0 750

Figure 5. National Wetlands Inventory
Sheet 8 of 15
2022-077 City of Wildomar GP Update



Map Features

- Wildomar City Limits

NWI Features

- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Sources: NAIP (2020), NWI (2020)
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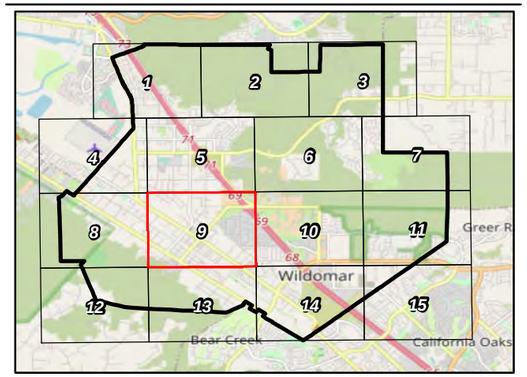

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0 750

Figure 5. National Wetlands Inventory
Sheet 9 of 15
2022-077 City of Wildomar GP Update

Map Features

- Wildomar City Limits

NWI Features

- Freshwater Pond
- Riverine

Sources: NAIP (2020), NWI (2020)
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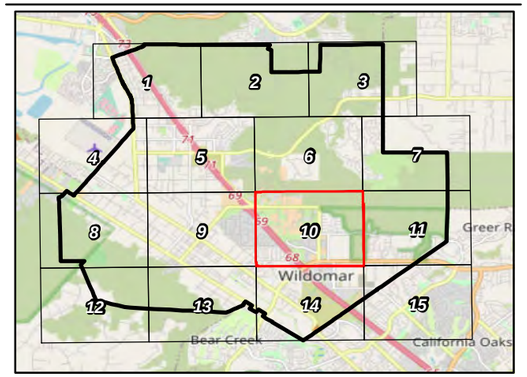

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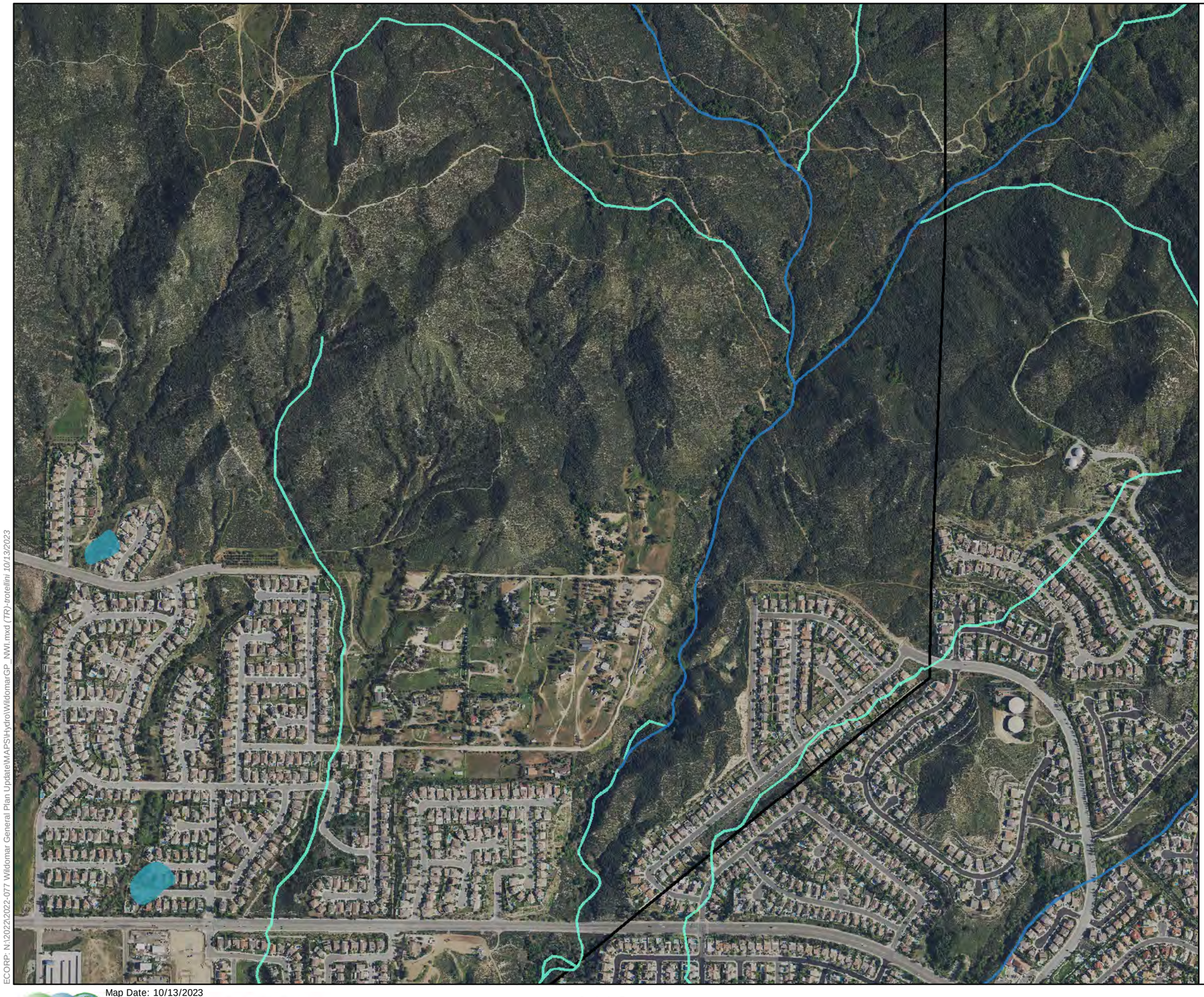
Figure 5. National Wetlands Inventory
Sheet 10 of 15
2022-077 City of Wildomar GP Update



Map Features

Wildomar City Limits

NWI Features

Freshwater Forested/Shrub Wetland

Freshwater Pond

Riverine

Sources: NAIP (2020), NWI (2020)

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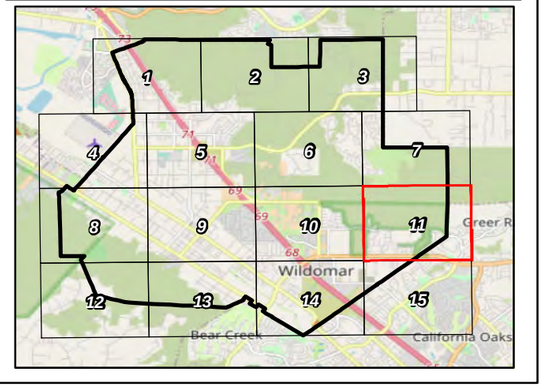

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Scale in Feet
0 750

Figure 5. National Wetlands Inventory
Sheet 11 of 15
2022-077 City of Wildomar GP Update

Map Features

Wildomar City Limits

NWI Features

Riverine

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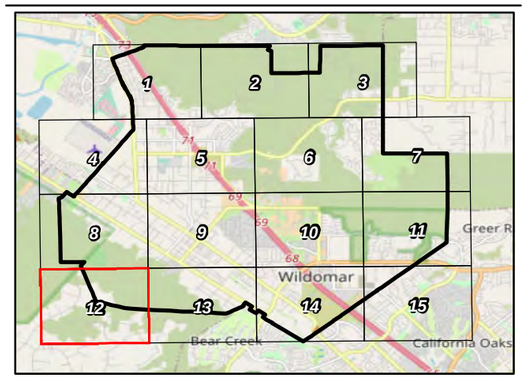

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0 750

Figure 5. National Wetlands Inventory
Sheet 12 of 15
2022-077 City of Wildomar GP Update

Map Features

- Wildomar City Limits

NWI Features

- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Sources: NAIP (2020), NWI (2020)
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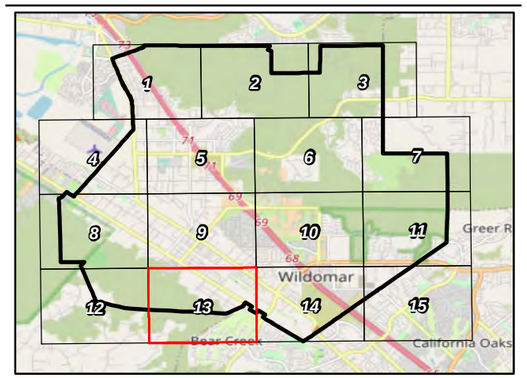

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Scale in Feet
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Figure 5. National Wetlands Inventory
Sheet 13 of 15
2022-077 City of Wildomar GP Update

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Map Features

- Wildomar City Limits

NWI Features

- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Sources: NAIP (2020), NWI (2020)
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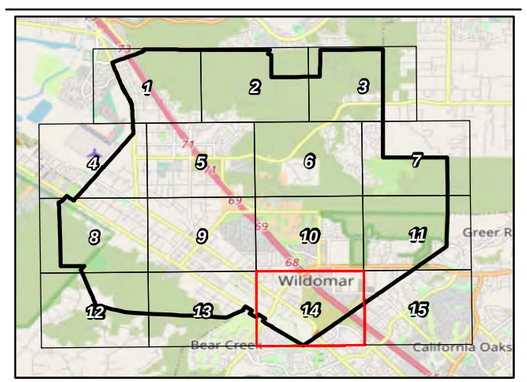

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Map Date: 10/13/2023

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Scale in Feet
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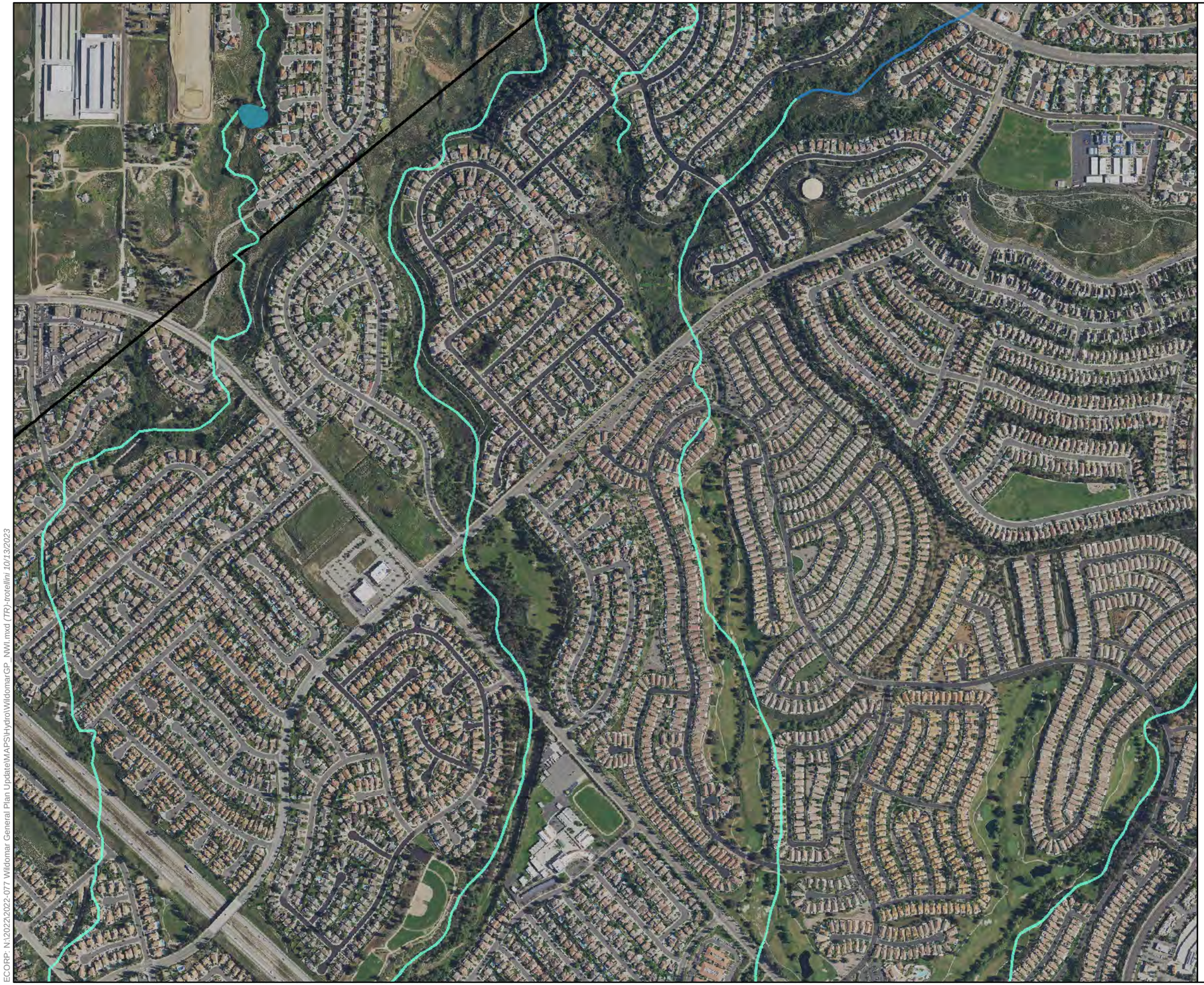
Figure 5. National Wetlands Inventory
Sheet 14 of 15
2022-077 City of Wildomar GP Update



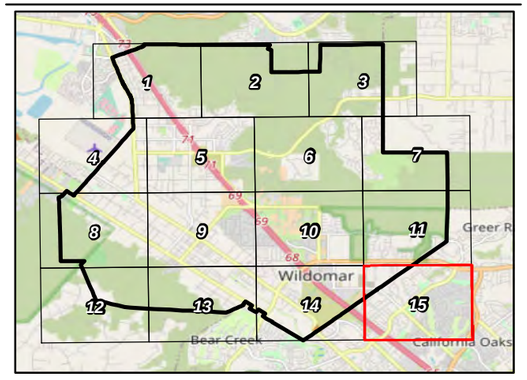
Map Features

- Wildomar City Limits

NWI Features

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Sources: NAIP (2020), NWI (2020)
Service Layer Credits: (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



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Map Date: 10/13/2023

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0 750

Figure 5. National Wetlands Inventory
Sheet 15 of 15
2022-077 City of Wildomar GP Update

Vernal Pool

Vernal pools are seasonal depressional wetlands that are covered by shallow water throughout periods from winter to spring and then often dry completely by the summer and fall. This habitat can range in size from a small puddle to a shallow lake and they are often connected to drainages. Vernal pools are the home to fairy shrimp species including the endangered Riverside fairy shrimp (*Streptocephalus woottoni*) and other fairy shrimp species (*Branchinecta* sp.).

4.5 Special-Status Species Documented to Occur in the City

For the purpose of this assessment, special-status biological resources are defined as:

- vegetation communities that are unique, or relatively limited distribution, or of particular value to wildlife;
- plant and animal species that have been designated as either rare, threatened, or endangered by CDFW or the USFWS, and are protected under either the federal or California ESAs;
- plant and wildlife species that are considered Sensitive under the United States Forest Service (USFS);
- plant and wildlife species being considered or proposed for listing under the federal or California ESAs; and
- plant and wildlife species that are of expressed concern to resource and regulatory agencies or local jurisdictions.

Note: For the purposes of this report, special-status plant species with a CRPR of 3 or 4 were only included if they are included in the conservation criteria of the MSHCP and wildlife species that are watch list are only included if they are part of conservation criteria in the MSHCP.

4.5.1 Plants

Special-status plant species include those classified as endangered or threatened, proposed or candidate species for listing by the USFWS or CDFW, monitored by CNPS, and considered to be those of greatest conservation need.

A total of 36 special-status plant species were identified through the database searches. An additional four were recognized in the City's Criteria Area Species Survey Areas. Results of the CNDDB, IPaC, and CNPS database searches are included as Appendix D. Table 5 summarizes the special-status plant species, associated habitats, designated critical habitat within the City, blooming period and elevation, and occurrence information.

The federal ESA establishes critical habitat as a means to contain essential features for threatened or endangered species. Critical habitat requires special management and protection. When designating critical habitat, areas are assessed for if the species occupies the area and if there is space for the individual or population to grow and exhibit normal behavior; the space provides shelter and food resources; the space is adequate for breeding and offspring rearing; and the space contains habitat that

can be protected from disturbances and is representative of the species' geographical range and distribution. No critical habitat for plant species exists within the City.

Plant species listed under federal or California ESAs are discussed in more detail below. Table 5 lists all the special-status plant species (as defined in Section 2.2) that have been documented to occur within the City or may be potentially affected by activities in the City, as identified in the literature review. However, Table 5 should not be considered a complete list of special-status plant species that may occur within the City. Other species not identified in the literature review may occur in the City presently or in the future. This table includes the listing status for each species, typical habitat requirements, typical blooming period across the species' range in California, and general elevation range.

Munz's onion (*Allium munzii*) is a federally listed endangered species, state-listed threatened species, CRPR 1B.1 species, and MSHCP covered species. It is a perennial bulbiferous herb that blooms from March through May. It can be found in a variety of habitats such as chaparral, cismontane woodland, coastal scrub, and valley and foothill grasslands. It is often found in clay or mesic microhabitats.

San Diego ambrosia (*Ambrosia pumila*) is a federally listed endangered species and CRPR 1B.1 species. It is a perennial rhizomatous herb that blooms April through October. It prefers sandy loam or clay soils and is often found in disturbed areas.

San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) is a federally listed endangered species, CRPR 1B.1 species, and MSHCP covered species. It is an annual herb that blooms from April through August. It can be found in playas, vernal pools, and valley and foothill grasslands. It is often found in alkaline micro habitats.

Thread-leaved brodiaea (*Brodiaea filifolia*) is a federally threatened, state-endangered species, CRPR 1B.1 species, and MSHCP covered species. It is a perennial bulbiferous herb that produces several blue to red-purple flowers on a leafless stalk. The blooming period is March through June. Habitat is in vernal pools and wetlands, but it can also occur in non-wetlands. Urbanization is the most significant threat to the species.

Slender-horned spineflower (*Dodecahema leptoceras*) is a federally endangered, state endangered species, CRPR 1B.1 species, and MSHCP covered species. It is an annual herb that blooms April through June and is found in sandy soil within chaparral, cismontane woodland, and alluvial fan habitat.

San Diego button-celery (*Eryngium aristulatum* var. *parishii*) is a federally endangered, state-listed endangered species, CRPR 1B.1 species, and MSHCP covered species. It is an annual/perennial herb that blooms from April through June. It occurs in coastal scrub, vernal pools, and valley and foothill grasslands. It often occurs in mesic microhabitats.

Parish's meadowfoam (*Limnanthes alba* ssp. *parishii*) is a state-listed endangered species, CRPR 1B.2 species, and MSHCP covered species. It is an annual herb that blooms from April through June. It occurs in lower montane coniferous forests, meadows and seeps, and vernal pools. It often occurs in vernally mesic microhabitats.

Spreading navarretia (*Navarretia fossalis*) is a federally listed threatened species, CRPR 1B.1 species, and MSHCP covered species. It is an annual herb that blooms from April through June. It occurs in a variety of habitats including chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pools.

California Orcutt grass (*Orcuttia californica*) is a federally listed endangered, state-listed endangered species, CRPR 1B.1 species, and MSHCP covered species. It is an annual herb that blooms from April through August. It occurs in vernal pools.

Table 5. Special-Status Plant Species Identified in the Literature Review

Common and Scientific Name	Status* Federal/State/ CRPR/USFS/MSHCP	Habitats	Blooming Period	Elevation Range (feet)
Chaparral sand-verbena *Abronia villosa* var. *aurita*	None/None/1B.1/S/None	Occurs in chaparral, coastal dune, and desert dunes.	(Jan) Mar–Sep	245–5250
Yucaipa onion *Allium marvinii*	None/None/1B.2/S/ Covered	Occurs in chaparral and generally in clay soils and openings.	Apr–May	2495–3495
Munz's onion *Allium munzii*	END/THR/1B.1/None/ Covered	Occurs in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grasslands.	Mar–May	975–3510
Alkali marsh aster *Almutaster pauciflorus*	None/None/2B.2/None/ Not Covered	Occurs in meadows and seeps.	Jun–Oct	785–2625
San Diego ambrosia *Ambrosia pumila*	END/None/1B.1/None/ Covered	Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools.	Apr–Oct	65–1360
Rainbow manzanita *Arctostaphylos rainbowensis*	None/None/1B.1/S/ Covered	Occurs in chaparral.	Dec–Mar	675–2200
San Jacinto Valley crownscale	END/None/1B.1/None/ Covered	Occurs in playas, valley and foothill grassland, and vernal pools.	Apr–Aug	455–1640

Table 5. Special-Status Plant Species Identified in the Literature Review				
Common and Scientific Name	**Status* Federal/State/ CRPR/USFS/MSHCP**	**Habitats**	**Blooming Period**	**Elevation Range (feet)**
Atriplex coronata var. *notatior*				
Parish's brittlescale *Atriplex parishii*	None/None/1B.1/None/ Covered	Occurs in chenopod scrub, playas, and vernal pools.	Jun–Oct	80–6235
California ayenia *Ayenia compacta*	None/None/2B.3/None/ Not Covered	Occurs in Mojavean and Sonoran desert scrub.	Mar–Apr	490–3595
Thread-leaved brodiaea *Brodiaea filifolia*	THR/END/1B.1/None/ Covered	Occurs in chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grasslands, and vernal pools. Often found in clay soils.	Mar–Jun	80–3675
Santa Rosa Basalt brodiaea *Brodiaea santarosae*	None/None/1B.2/S/ Not Covered	Occurs in valley and foothill grassland.	May–Jun	1855–3430
Intermediate mariposa-lily *Calochortus weedii* var. *intermedius*	None/None/1B.2/S/ Covered	Occurs in chaparral, coastal scrub, and valley and foothill grassland.	May–Jul	345–2805
Smooth tarplant *Centromadia pungens* ssp. *laevis*	None/None/1B.1/None/ Covered	Occurs in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland.	Apr–Sep	0–2100
Parry's spineflower *Chorizanthe parryi* var. *parryi*	None/None/1B.1/S/ Covered	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	Apr–Jun	900–4005

Table 5. Special-Status Plant Species Identified in the Literature Review				
Common and Scientific Name	**Status* Federal/State/ CRPR/USFS/MSHCP**	**Habitats**	**Blooming Period**	**Elevation Range (feet)**
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	None/None/1B.2/None/ Covered	Occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools.	Apr–Jul	100–5020
San Miguel savory *Clinopodium chandleri*	None/None/1B.2/S/ Covered	Occurs in chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland.	Mar–Jul	395–3525
Slender-horned spineflower *Dodecahema leptoceras*	END/END/1B.1/None/ Not Covered	Occurs in chaparral, cismontane woodland, and coastal scrub (alluvial fans).	Apr–Jun	655–2495
Many-stemmed dudleya *Dudleya multicaulis*	None/None/1B.2/S/ Covered	Occurs in chaparral, coastal scrub, and valley and foothill grassland.	Apr–Jul	50–2590
San Diego button-celery *Eryngium aristulatum* var. *parishii*	END/END/1B.1/None/ Covered	Occurs in coastal scrub, valley and foothill grassland, and vernal pools.	Apr–Jun	65–2035
Campbell's liverwort *Geothallus tuberosus*	None/None/1B.1/None/ Not Covered	Occurs in coastal scrub and vernal pools.	–	35–1970
Palmer's grapplinghook *Harpagonella palmeri*	None/None/4.2/None/ Covered	Occurs in chaparral, coastal scrub, and valley and foothill grassland.	Mar–May	65–3135

Table 5. Special-Status Plant Species Identified in the Literature Review

Common and Scientific Name	Status* Federal/State/ CRPR/USFS/MSHCP	Habitats	Blooming Period	Elevation Range (feet)
Tecate cypress *Hesperocyparis forbesii*	None/None/1B.1/S/ Not Covered	Occurs in closed-cone coniferous forest and chaparral.	–	360–4920
Santa Lucia dwarf rush *Juncus luciensis*	None/None/1B.2/S/ Not Covered	Occurs in chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools.	Apr–Jul	985–6695
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	None/None/1B.1/None/ Covered	Occurs in marshes and swamps, playas, and vernal pools.	Feb–Jun	5–4005
Lemon lily *Lilium parryi*	None/None/1B.2/S/ Covered	Occurs in lower and upper montane coniferous forest, meadows and seeps, and riparian forest.	Jul–Aug	4005–9005
Parish's meadowfoam *Limnanthes alba* ssp. *parishii*	None/END/1B.2/S/ Covered	Occurs in lower montane coniferous forest, meadows and seeps, and vernal pools.	Apr–Jun	1970–6560
Intermediate monardella *Monardella hypoleuca* ssp. *intermedia*	None/None/1B.3/None/ Not Covered	Occurs in chaparral, cismontane woodland, and lower montane coniferous forest.	Apr–Sep	1310–4100
Little mousetail *Myosurus minimus* ssp. *apus*	None/None/3.1/None/ Covered	Occurs in valley and foothill grassland and vernal pools.	Mar–Jun	65–2100
Spreading navarretia *Navarretia fossalis*	THR/None/1B.1/None/ Covered	Occurs in chenopod scrub, marshes and swamps, playas, and vernal pools.	Apr–Jun	100–2150

Table 5. Special-Status Plant Species Identified in the Literature Review				
Common and Scientific Name	**Status* Federal/State/ CRPR/USFS/MSHCP**	**Habitats**	**Blooming Period**	**Elevation Range (feet)**
Prostrate vernal pool navarretia *Navarretia prostrata*	None/None/1B.2/None/ Covered	Occurs in coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools.	Apr–Jul	10–3970
California Orcutt grass *Orcuttia californica*	END/END/1B.1/None/ Covered	Occurs in vernal pools.	Apr–Aug	50–2165
White rabbit-tobacco *Pseudognaphaliu m leucocephalum*	None/None/2B.2/None/ Not Covered	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland.	(Jul) Aug–Nov (Dec)	0–6890
Southern mountains skullcap *Scutellaria bolanderi* ssp. *austromontana*	None/None/1B.2/S/ Not Covered	Occurs in chaparral, cismontane woodland, and lower montane coniferous forest.	Jun–Aug	1395–6560
Hammitt's clay-cress *Sibaropsis hammittii*	None/None/1B.2/S/ Covered	Occurs in chaparral openings and valley and foothill grasslands.	Mar–Apr	2360–3495
Bottle liverwort *Sphaerocarpos drewiae*	None/None/1B.1/None/ Not Covered	Occurs in chaparral and coastal scrub.	–	295–1970
San Bernardino aster *Symphyotrichum defoliatum*	None/None/1B.2/S/ Not Covered	Occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothills grasslands.	Jul–Nov	5–6695

Table 5. Special-Status Plant Species Identified in the Literature Review				
Common and Scientific Name	**Status* Federal/State/ CRPR/USFS/MSHCP**	**Habitats**	**Blooming Period**	**Elevation Range (feet)**

*Status Codes:
Federal
END = Listed as endangered under the federal Endangered Species Act
THR = Listed as threatened under the federal Endangered Species Act
CAN = Candidate for threatened or endangered status
None = No listing under the Federal Endangered Species Act
State
END = Listed as endangered under the California Endangered Species Act
THR = Listed as threatened under the California Endangered Species Act
FP = Fully protected under the California Fish and Game Code
SSC = Species of special concern in California
None = No listing under the California Endangered Species Act
CNPS Rare Plant Rank (CRPR) Status Designations
1A = Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B = Plants Rare, Threatened, or Endangered in California and Elsewhere
2A = Plants Presumed Extirpated in California, But Common Elsewhere
2B = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 = Plants about which more information is needed; a review list
4 = Plants of limited distribution; a watch list
CRPR List .1, .2, and .3 Extension Meanings:
.1 = Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)
.2 = Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)
.3 = Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)
United States Forest Service (USFS)
S = Listed as sensitive under the United States Forest Service
None = No listing under the United States Forest Service
Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)
Covered = Covered Species
Not Covered = Not covered species

If a proposed project has the potential to adversely impact plants (e.g., a ground or vegetation-disturbing activity), determine if the proposed project occurs within a Section 6.1.3 Narrow Endemic Plant Species Survey Area (NEPSSA) and Section 6.3.2 Criteria Area Plant Species Survey Area (CAPSSA). If the proposed project is not located within a NEPSSA or CAPSSA, no further action is required. If a proposed project is located within a NEPSSA and/or CAPSSA, the project will comply with the MSHCP requirements.

4.5.2 Wildlife

Special-status wildlife species include those classified as endangered or threatened, proposed or candidate species for listing by the USFWS or CDFW, USFS Sensitive, or considered a CDFW fully protected species or SSC.

A total of 42 special-status wildlife species known to occur in the vicinity of the City were identified through the database review. Table 6 summarizes the special-status wildlife, associated habitats, and any designated critical habitat within the City.

The federal ESA establishes critical habitat as a means to contain essential features for threatened or endangered species. Critical habitat requires special management and protection. When designating critical habitat, areas are assessed for if the species occupies the area and if there is space for the individual or population to grow and exhibit normal behavior; the space provides shelter and food resources; the space is adequate for breeding and offspring rearing; and the space contains habitat that can be protected from disturbances and is representative of the species' geographical range and distribution. Within the City, critical habitat for coastal California gnatcatcher exists (Figure 2B). Wildlife species listed or proposed for listing under the federal or California ESAs are discussed in more detail below.

Table 6 lists all the special-status wildlife species that have been documented to occur within the City or may be potentially affected by activities in the City, as identified in the literature review. However, Table 6 should not be considered a complete list of special-status wildlife species that may occur within the City. Other species not identified in the literature review may occur in the City presently or in the future.

Included in this table are the listing status for each species and preferred habitats.

- Crotch bumble bee (*Bombus crotchii*) is a candidate for state listing. This species occurs in open grassland and scrub habitats ranging from coastal California, east to the Sierra-Cascade crest, and south into Mexico. The flight period for queens in California is from late February to late October, peaking in early April with a second pulse in July. The flight period for workers and males in California is from late March through September, peaking in early July. The species prefers a diet consisting of certain plant species including milkweeds (*Asclepias* sp.), dusty maidens (*Chaenactis* sp.), lupines (*Lupinus* sp.), medics (*Medicago* sp.), phacelias (*Phacelia* sp.), sages (*Salvia* sp.), clarkias (*Clarkia* sp.), poppies (*Papaver* sp. or *Eschscholzia* sp.), and wild buckwheat (*Eriogonum* sp.).
- Vernal pool fairy shrimp (*Branchinecta lynchi*) is a federally threatened species and MSHCP covered species. This species is a small, freshwater crustacean found in vernal pools throughout California. They have slender bodies with 11 pairs of legs that function as gills and aid in swimming. They are opportunistic filter feeders. Females carry fertilized eggs in a sac on the underside of their body. Resting fairy shrimp eggs are known as cysts and can remain viable for multiple years within dry pools. The average lifespan is 91 days. They generally begin their lifecycle in November and complete their entire life cycle by early May; this depends on the presence of suitable water conditions within vernal pools.
- San Diego fairy shrimp (*Branchinecta sandiegonensis*) is a federally endangered species and MSHCP covered species. This species is usually observed from January to March if seasonal rainfall creates vernal pools and initiates cysts hatching. This species has compound eyes similar to the vernal pool fairy shrimp. They are distinguished from other Branchinecta fairy shrimp by the shape of the second antenna in the males or the shape and length of the ventral ovisac in

females. They are also distinguished by a pair of dorsolateral spines. Cysts hatch and mature within 7 to 14 days of vernal pools arising.

- Monarch butterfly- California overwintering population (*Danaus plexippus* pop. 1) is a federally candidate species. They are found primarily in prairies, meadows, grasslands, and along roadsides. Adult butterflies drink nectar from a variety of flowers, however, milkweed is an essential food for growing larvae.
- Quino checkerspot butterfly (*Euphydryas editha quino*) is a federally endangered species and MSHCP covered species. Orange, black, and white arranged in a checkerboard pattern is characteristic of this species. It has a black body with orange antennae. This species requires specific host plants. Host plants include dwarf plantain (*Plantago erecta*), white snapdragon (*Antirrhinum coluterianum*), woolly plantain (*Plantago patagonica*), and Chinese houses (*Collinsia concolor*).
- Riverside fairy shrimp (*Streptocephalus woottoni*) is a federally endangered species and MSHCP covered species. They typically occur in vernal pools and other basins that hold water for sufficient periods (i.e., 7 to 8 weeks) to allow for completion of its lifecycle. This species is observed from January through March.
- Arroyo toad (*Anaxyrus californicus*) is a federally endangered species, CDFW SSC species, and MSHCP covered species. It is found in low-gradient streams and rivers that have intermittent and perennial flows. This toad is small, stocky, and warty; it is 2 to 3 inches in length. Color is a light olive green, gray, or light brown with a light "V" shaped stripe across the head, eyelids, and spots. Belly is white or buff colored and generally without spots.
- California red-legged frog (*Rana draytonii*) is a federally threatened species, CDFW SSC species, and MSHCP covered species. It is also listed as an SSC under CDFW. It is the largest native frog in the western U.S. ranging from 1.75 to 5.25 inches (snout to vent). Color, from above, can range from brown, gray, olive, red, to orange. Dark specks of spots are along the back. From the eye to the hip, on both sides of the back, is a dorsolateral fold or ridge.
- Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species and MSHCP covered species. It is also a BCC under USFWS and a sensitive species under the Bureau of Land Management. This hawk is medium sized with longer, pointed wings that curve upward in flight. This species has three morphs that vary in coloration: light, intermediate, and dark. They can be found around the riparian systems but also can be found in agricultural fields and pastures.
- Western snowy plover (*Danaus plexippus* pop. 1) is a federally threatened species and CDFW SSC species. They are primarily found in open, sandy areas adjacent to water. Breeding season occurs from March through September. Nests are made on the ground and made of various materials. Nonbreeding adults and immatures have a brown-gray back with white belly. Breeding adults develop stronger black coloration around the face near the shoulders, eyes, and forehead.
- Southwestern willow flycatcher (*Empidonax traillii extimus*) is a federally and state-listed endangered species and MSHCP covered species. This flycatcher has a grayish-green back and

wings, white throat, gray olive breast and pale yellow belly. During its breeding season, it can be found near riparian forests.

- Coastal California gnatcatcher (*Polioptila californica californica*) is a federally listed threatened species and MSHCP covered species. It is also an SSC under CDFW. It is a small blue-gray songbird that has dark blue gray feathers on its back and grayish white on its underside. The wings are brown in color, and the tail is mostly black with white outer tail feathers. They have a white ring around the eyes. They prefer coastal sage scrub and desert scrub.

4.5.2.1 Critical Habitat

The USFWS designated Critical Habitat for coastal California gnatcatcher in 2000 and revised the designated Critical Habitat in 2007. Critical habitat exists within Riverside County and within the City for the coastal California gnatcatcher (Figure 2B). Critical habitat is located south and southeast of Bundy Canyon within the City. Furthermore, critical habitat is located immediate north of the City and just east of Lake Elsinore. Unit 10 exists within both San Bernardino and Riverside Counties. The 2007 revision of the critical habitat reduced the original 199,940 acres designated in 2000 to 27,529 acres. Of the total acres in this Unit, 21,776 acres are within the MSHCP plan area.

- Least bell's vireo (*Vireo bellii pusillus*) is a state and federally listed endangered species and MSHCP covered species. This species prefers dense shrub habitats including scrub oak, riverine scrub, saltcedar stands, and coastal chaparral. The least bell's vireo is gray/brown above and white below. It has a faint outline around the eyes.
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*) is a state and federally listed endangered species and a CDFW SSC. This species is also an MSHCP covered species. This species' preferred habitat is alluvial fan sage scrub. It is one of three recognized subspecies of *Dipodomys merriami* and the only one with four toes.
- Stephens' kangaroo rat (*Dipodomys stephensi*) is a federally endangered, state threatened species, and MSHCP covered species. It can be found in arid and semi-arid habitats. Stephens' kangaroo rats have tails that can be twice as long as the body. They have light brown fur that is lighter on the legs and along the ventral surface.

Table 6. Special-Status Wildlife Species Identified in the Literature Review		
Common and Scientific Name	**Status* Federal/State/ USFS/MSHCP**	**Habitats**
Invertebrates		
Crotch bumble bee *Bombus crotchii*	None/CAN/None/Not Covered	Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Occurs in open grassland and scrub habitats. Prefers a diet consisting of certain plant species including milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats. Nests are often located underground in abandoned rodent nests or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees.
Vernal pool fairy shrimp Branchinecta lynchi	THR/None/None/Not Covered	Occurs in vernal pools and ephemeral wetlands. Typically occurs in small and shallow pools with mud or grassy bottoms.
San Diego fairy shrimp *Branchinecta sandiegonensis*	END/None/None/Not Covered	Occurs in vernal pools and non-vegetated ephemeral basins.
Monarch butterfly *Danaus plexippus plexippus* pop. 1	CAN/None/S/Not Covered	Roosts in wind-protected tree groves (coastal California conifer and eucalyptus species) from Northern Mendocino to Baja California. Milkweed is essential for the larvae of this species.
Quino checkerspot butterfly *Euphydryas editha quino*	END/None/None/ Covered	Occurs in chaparral and coastal sage scrublands, containing the proper host plant and abundant nectar resources. Primary host plants include dwarf plantain (*Plantago erecta*), white snapdragon (*Anterrhinum coulterianum*), woolly plantain (*Plantago patagonica*), and Chinese houses (*Collinsia concolor*)
Santa Rosa Plateau fairy shrimp *Linderiella santarosae*	None/None/None/ Covered	Occurs in cool-water vernal pools that are formed from Southern Basalt Flows.
Riverside fairy shrimp *Streptocephalus woottoni*	END/None/None/ Covered	Occurs in vernal pools, tectonic swales, and earth slump basins in Riverside County.

Table 6. Special-Status Wildlife Species Identified in the Literature Review		
Common and Scientific Name	**Status* Federal/State/ USFS/MSHCP**	**Habitats**
Fish		
Arroyo chub *Gila orcuttii*	None/SSC/S/ Covered	Occurs in creeks, streams, and rivers with areas of slow-moving water with sand or mud bottoms. Ranges from San Diego to San Luis Obispo county.
Amphibians		
Arroyo toad *Anaxyrus californicus*	END/SSC/None/ Covered	Occurs along the sandy banks of rivers, arroyos, and streams with shallow sandy pools. Also found in riparian woodlands or uplands adjacent to arroyos.
California red-legged frog *Rana draytonii*	THR/SSC/None/ Covered	Occurs near water features such as ponds or streams in humid forests, grasslands, coastal scrub, and woodlands.
Western spadefoot *Spea hammondii*	None/SSC/None/ Covered	Occurs in open areas with sandy soils in a wide range of habitats including lowlands to foothills, coastal sage scrub, chaparral, mixed woodlands, alluvial fans, and grasslands.
Coast Range newt *Taricha torosa*	None/SSC/None/ Covered	Occurs in wet forests, oak forests, chaparral, and rolling grasslands. In southern California, it will occur in drier chaparral, oak woodland, and grasslands. Eggs are laid or attached by the female to submerged vegetation, logs, or rocks.
Reptiles		
Southern California legless lizard *Anniella stebbinsi*	None/SSC/S/Not Covered	Occurs in coastal sand dunes, scrubs, chaparral, and a variety of interior habitats, including sandy washes and alluvial fans.
California glossy snake *Arizona elegans occidentalis*	None/SSC/None/Not Covered	Occurs in arid scrub, rocky washes, grasslands, chaparral. Typically in open areas and areas with loose soil for burrowing.
Orange-throated whiptail *Aspidoscelis hyperythra*	None/None/S/ Covered	Occurs in semi-arid open areas with coarse soils including coastal sage scrub, chaparral, and dry riparian areas and washes.

Table 6. Special-Status Wildlife Species Identified in the Literature Review		
Common and Scientific Name	**Status* Federal/State/ USFS/MSHCP**	**Habitats**
Coastal whiptail *Aspidoscelis tigris stejnegeri*	None/SSC/None/ Covered	Occurs in arid habitats including chaparral, woodlands, and dry riparian areas.
Red-diamond rattlesnake *Crotalus ruber*	None/SSC/S/ Covered	Occurs in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes, and rocky desert flats.
Western pond turtle *Emys marmorata*	None/SSC/S/ Covered	Occurs in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation. Also occurs in either rocky or muddy bottoms of these aquatic environments. Can also occur in woodland, forest, and grassland habitats.
Blainsville's horned lizard *Phrynosoma blainvillii*	None/SSC/None/ Covered	Occurs in open areas of valleys, foothills, and semiarid mountains with sandy soil and low vegetation including chaparral, woodlands, and grasslands.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	None/SSC/None/Not Covered	Occurs in open arid and semi-arid areas such as deserts, brushland, grassland, and in scrub along canyons, rocky hillsides, sandy plains.
Two-striped gartersnake *Thamnophis hammondii*	None/SSC/S/Not Covered	Occurs along aquatic habitats such as creeks and pools with rocky areas in chaparral, brushland, oak woodlands, and conifer forests. Requires water for foraging.
Birds		
Cooper's hawk *Accipiter cooperii*	None/None/None/ Covered	Occurs within forests and woodlands. Also occurs in neighborhoods and parks. Nests are typically built in pines, oaks, Douglas-fir, birches, spruces, and other taller trees that occur on flat ground and in dense woods.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	None/None/None/ Covered	Occurs on dry, open hillsides covered with grasses, rocks, and scattered shrubs. Chaparral, coastal sagebrush, scrub oaks, and pinyon pine are common habitats. Not associated with dense, woody vegetation. Nests are built on the ground near the base of a shrub.

Table 6. Special-Status Wildlife Species Identified in the Literature Review		
Common and Scientific Name	**Status* Federal/State/ USFS/MSHCP**	**Habitats**
Golden eagle *Aquila chrysaetos*	None/FP/None/ Covered	Occurs in open and semi-open habitats. Found alongside canyonlands, rimrock terrain, and riverside cliffs and bluffs. They avoid developed areas and uninterrupted stretches of forest. Nesting occurs on cliffs but can occur in trees, on the ground, or in artificial structures. Nesting can also occur in grassland, chaparral, shrubland, forest, and other vegetated areas.
Bell's sparrow *Artemisiospiza belli belli*	None/None/None/ Covered	Breeding occurs in coastal sagebrush, chaparral, and open, scrubby habitats. Within chaparral, they are often found in young, less dense stands. Nesting occurs within shrubs, bunchgrasses and occasionally California sagebrush, brittlebush, white sage, black sage, California buckwheat, bush mallow, chamise, cholla, and willow. During winter they will utilize saltbush-dominated desert scrub and creosote.
Burrowing owl *Athene cunicularia*	None/SSC/None/ Covered	Occurs in a variety of habitats characterized by dry annual or perennial low-growing vegetation. Occurs in grasslands, scrublands, agricultural fields, vacant lots, and other disturbed areas. Nests in abandoned burrows and requires an abundance of prey (e.g., ground squirrels and insects).
Swainson's hawk *Buteo swainsoni*	None/THR/None/ Covered	Occurs in great basin grassland, great basin scrub, pinyon and juniper woodlands and valley and foothill grasslands.
Western snowy plover *Charadrius nivosus nivosus*	THR/SSC/None/Not Covered	Occurs in sand spits and dune-backed beaches.
White-tailed kite *Elanus leucurus*	None/FP/None/Not Covered	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Typically use riparian scrub, forest and woodland, and oak woodland and forest for breeding and use a wide variety of more open grassland/agricultural land and scrub lands for foraging. Nesting occurs in the upper third of trees; trees can be isolated or at the edge of or within a forest.
Southwestern willow flycatcher *Empidonax traillii extimus*	END/END/None/ Covered	Occurs within riparian woodlands, particularly those with willow thickets. Nests in areas of shrubs and trees with low-density canopies.

Table 6. Special-Status Wildlife Species Identified in the Literature Review		
Common and Scientific Name	**Status* Federal/State/ USFS/MSHCP**	**Habitats**
California horned lark *Eremophila alpestris actia*	None/None/None/ Covered	Occurs in areas with bare, dry ground or with sparse vegetation. Common habitats include beaches, heavily grazed pastures, and deserts. They are common in areas with signs of human disturbance. Nests are placed on bare ground.
Yellow-breasted chat *Icteria virens*	None/SSC/None/ Covered	Occurs in riparian and upland thickets as well as dry overgrown pastures. Prefers to nest in dense scrub along streams or at the edges of ponds or swamps.
Loggerhead shrike *Lanius ludovicianus*	None/SSC/None/ Covered	Occurs in open country, with scattered shrubs and trees or other perches for hunting. Common habitats include agricultural fields, deserts, grasslands, savanna, and chaparral.
White-faced ibis *Plegadis chihi*	None/None/None/ Covered	Occurs in freshwater habitats such as ponds, rivers, marshes, and swamps. Nests in low trees or on the ground within reeds in marshes.
Coastal California gnatcatcher *Polioptila californica californica*	THR/SSC/None/ Covered	Occurs in dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub. USFWS-designated critical habitat for this species is located within the City.
Least Bell's vireo *Vireo bellii pusillus*	END/END/None/ Covered	Occurs within willows and riparian forest, scrub, and woodlands. Breeds in low dense growth, especially in second-growth scrub or brushy fields.
Mammals		
San Bernardino kangaroo rat *Dipodomys merriami parvus*	END/END and SSC/None/ Covered	Occurs in alluvial sage scrub, flood plains, washes, and upland areas adjacent to desert habitat.
Stephens' kangaroo rat *Dipodomys stephensi*	THR/THR/None/ Covered	Occurs in coastal scrub and valley and vegetated temperate foothill grasslands. Endemic to southern California, primarily in western Riverside County.

Table 6. Special-Status Wildlife Species Identified in the Literature Review		
Common and Scientific Name	**Status* Federal/State/ USFS/MSHCP**	**Habitats**
Western mastiff bat *Eumops perotis californicus*	None/SSC/None/Not Covered	Occurs in a variety of habitats including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas.
Western yellow bat *Lasiurus xanthinus*	None/SSC/None/Not Covered	Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitat.
Southern grasshopper mouse *Onychomys torridus ramona*	None/SSC/None/Not Covered	Occurs in arid Mojavean desert habitats, alkali desert scrub, succulent shrub, wash, and riparian areas. Also occurs in coastal scrub, mixed chaparral, sagebrush, and bitterbrush habitats.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	None/SSC/None/ Covered	Occurs in arid and semi-arid habitats such as coastal sage scrub, grasslands, and washes.

***Status Codes:**

Federal

END = Listed as endangered under the federal Endangered Species Act
THR = Listed as threatened under the federal Endangered Species Act
CAN = Candidate for threatened or endangered status
None = No listing under the Federal Endangered Species Act

State

END = Listed as endangered under the California Endangered Species Act
THR = Listed as threatened under the California Endangered Species Act
FP = Fully protected under the California Fish and Game Code
SSC = Species of special concern in California
None = No listing under the California Endangered Species Act

United States Forest Service (USFS)

S = Listed as sensitive under the United States Forest Service
None = No listing under the United States Forest Service

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

Covered = Covered Species
Not Covered = Not covered species

4.6 Critical Habitat and Essential Fish Habitat

The City does not include Essential Fish Habitat; however, it does include USFWS-designated Critical Habitat for coastal California gnatcatcher (USFWS 2023c; Figure 2B).

4.7 Riparian Habitats and Sensitive Natural Communities

Sensitive habitat types exist throughout the City. These are considered sensitive by resource agencies such as USFWS and CDFW due to their scarcity or ability to support state or federally endangered or threatened species of plants and wildlife. A CNDDB search was conducted and recorded five sensitive natural vegetation communities within or near the City (Appendix D). Individual project surveys would be required to conduct project-level mapping to determine the extent of sensitive vegetation communities within the City. A description of each sensitive natural community is included below with the natural community's name identified through CNDDB followed by the comparable vegetation alliance name found in *Manual of California Vegetation* (CNPS 2023b), when applicable. It is important to note that the vegetation communities and land cover types shown on Figure 4 were mapped by Western Riverside County RCA and may not include these five sensitive natural vegetation communities that were identified in the CNDDB.

Southern Coast Live Oak Riparian Forest/*Quercus agrifolia* Forest & Woodland Alliance ranges from open to dense and is dominated by coast live oak. It is located in outer floodplains and along streams. Vegetation tends to be herbaceous with little to no understory. Common plants include mugwort (*Artemisia douglasiana*), California wild rose (*Rosa californica*), Mexican elderberry (*Sambucus mexicana*), and poison oak (*Toxicodendron diversilobum*).

Southern Cottonwood Willow Riparian Forest/ *Populus fremontii- Fraxinus velutina- Salix gooddingii* Forest & Woodland Alliance consists of tall, open, deciduous riparian forest species with Fremont cottonwood (*Populus fremontii*), western sycamore, and willows (*Salix* spp.) as the predominant tree species. Commonly occurs near perennial drainages such as canyon bottoms and along streams.

Southern Interior Basalt Flow Vernal Pool does not have a comparable alliance in CNPS due to the location of the City. However, NatureServe (2022) does have a Group called California Vernal Pool that may most closely describe the Southern Interior Basalt Flow Vernal Pool. This group consists of wet meadows throughout southern California that form concentric rings around shallow ephemeral pools. These pools fill and dry out seasonally or semi-annually. Plant species common to this group include Jepson's button celery (*Eryngium aristulatum*), southern tarplant (*Centromadia parryi* ssp. *australis*), Coulter goldfields (*Lasthenia glabrata* ssp. *coulteri*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), San Diego mesa mint (*Pogogyne abramsii*), Otay mesa mint (*Pogogyne nudiuscula*), and San Jacinto bluecurls (*Trichostema austromontanum*).

Southern Sycamore Alder Riparian Woodland/*Platanus racemosa- Quercus agrifolia* Woodland Alliance consists of trees less than 35 meters with an intermittent or open canopy. The shrub layer is also open to intermittent while the herbaceous layer is sparse or grassy. Western sycamore makes up about 30 percent of the tree canopy; coast live oak, willows (*Salix* spp.), and Fremont cottonwood are co-dominant species. Along riparian areas, coast live oak is the dominant cover along with willows and poison oak.

Valley Needlegrass Grassland/*Nassella* spp.- *Melica* spp. Herbaceous Alliance consists of herbs that are less than one meter in height and that provide open to continuous coverage. Dominant species include California melic (*Melica californica*), Torrey's melic grass (*Melica torreyana*), nodding needlegrass (*Nassella cernua*), small flowered needlegrass (*Nassella lepida*), and purple needlegrass (*Nassella pulchra*). Soils are high in clay, loam, sand, or silt.

As described in Section 4.3, the general vegetation communities and land cover types within the City include agricultural lands, chaparral, coastal sage scrub, grassland, meadows and marshes, riparian scrub, woodland, and forests, water, woodland and forests, and developed/disturbed areas. These general vegetation communities and land cover types can be more finely classified into vegetation alliances. Further, these general communities have the potential to be composed of vegetation alliances, which may be considered sensitive natural communities by CDFW. The City likely includes vegetation communities other than those described in this assessment that may also be considered sensitive natural communities by CDFW.

4.8 Wildlife Movement/Corridors and Nursery Sites

The continued protection and establishment of wildlife corridors is highly important to the City. As development continues and habitat fragments, it becomes harder for wildlife to travel between these fragments of their habitat. Wildlife corridors are linear landscape elements that provide for wildlife species movement and dispersal between two or more habitats. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local displacement or ecological catastrophes (e.g., fires). Wildlife corridors could be bound by development or areas unsuitable for wildlife, but could contain enough food, cover, and/or water to facilitate wildlife movement between habitat patches and prevent isolation of populations. Travel routes are landscape features (i.e., ridgelines, drainages, canyons, or riparian areas) that are used by wildlife to gain access to essential resources. Areas adjoining two habitats are also often referred to as habitat linkages.

Wildlife corridors can exist throughout the City and projects should include an analysis of wildlife corridors and nursey sites. A large expanse of natural habitat within the City exists at the foothills of the Cleveland National Forest. However, due to development within the City, movement from the City into the Cleveland National Forest and vice versa, is limited. The City is highly developed, and I-15 bisects the City as it runs generally north-south and further limits the success of wildlife dispersal.

An additional movement corridor exists in the form of Murrieta Creek. Creeks and drainages often provide wildlife with ways to move throughout developed landscapes. Additionally, the San Andreas Rift Zone is within and adjacent to the City and provides unique topographical characteristics, microclimates, and habitats that allow for linkage of habitats and can facilitate movement.

The development of the MSHCP included an assessment of core habitat areas and linkages within the MSHCP plan area; these core habitats and linkages provide suitable habitat for Covered Species and allow movement throughout the plan area. Areas of core habitat generally consists of blocks of habitat of sufficient size to support the life history requirements of Covered Species or reduce edge effects. Linkages primarily facilitate movement and provide a connection to core habitat. Within the City, Criteria Cells

reference the preservation or contribution to the assembly of Proposed Linkage 8 and Proposed Extension of Existing Core 3. A summary of these as they relate to the City and facilitate wildlife movement is provided below:

- Proposed Linkage 8 consists primarily of upland habitat and is a major component of one of the two main east-west connections between Lake Mathews/Estelle Mountain, Alberhill, and the Cleveland National Forest in the west and French Valley, Johnson Ranch, Diamond Valley Lake, and San Jacinto Mountains in the east. This linkage begins on the west side of the I-15 near Lake Elsinore which is north of the City. It then continues south, parallel to the I-15, through the City until moving east toward Diamond Valley Lake. This linkage provides movement corridors and habitat for sensitive wildlife species such as coastal California gnatcatcher, Quino checkerspot butterfly, and Stephens' kangaroo rat. A total of 5,470 acres are included in this linkage.
- Proposed Extension of Existing Core 3 consists of two blocks of land that extend from the southern border of Lake Elsinore. This Extension occurs in the northeastern portion of the City. This Extension conserves soils of the Traver series and therefore protects habitat for Narrow Endemic Plants including Munz's onion, San Diego ambrosia, and smooth tarplant. Sensitive wildlife species are also associated with this Extension and include Riverside fairy shrimp, Quino checkerspot butterfly, western pond turtle, and shorebirds. A total of 1,290 acres are included in this Extension.

The City likely provides wildlife movement opportunities because it consists of open land and preserved areas. Although the City's value as a corridor is lessened by the high amount of development, the City still offers ways for wildlife to move through the landscape. Lastly, bird rookeries, bat maternity roost sites, and other nursery sites have the potential to exist within the City.

5.0 RECOMMENDATIONS

This section provides general recommendations to avoid, minimize, and/or mitigate potential impacts to biological resources that may be associated with future development and implementation of the General Plan within the City. These recommendations are consistent with requirements under the MSHCP. Appendix A includes flow charts that generally summarize the main steps for biological resources recommendations.

This section refers to project-related activities as *actions* and provides general recommendations to ensure compliance with the local policies, ordinances, and other relevant plans.

5.1 General Biological Measures

BIO-1: If an action may adversely impact biological resources, a qualified biologist or their trained designee should conduct mandatory worker environmental awareness training for all parties involved with implementation of the action (e.g., contractors and work crews) to aid the parties in recognizing special-status species and other sensitive biological resources that may occur within the action area. The training shall include identification of the special-status species with potential to occur and their habitats, a description of the regulatory

status of sensitive resources, and review of the impact limits, location of environmentally sensitive areas, and measures required to reduce impacts to avoided onsite and offsite biological resources.

BIO-2: If an action has potential to inadvertently impact avoided onsite or offsite biological resources, develop and implement appropriate measures to ensure all impacts occur only in the action area. Appropriate measures may include control of sediment, erosion, and hazardous materials; demarcation of action area prior to implementation and maintenance of demarcation through the duration of implementation; and measures to ensure all actions that have potential to impact biological resources stay within the demarcated limits.

5.2 Special-Status Species

Multiple special-status species are documented to occur or have the potential to occur within the City and/or may be potentially affected by activities in the City, as described in Tables 5 and 6. However, these tables should not be considered a complete list of special-status species that may occur within the City. New occurrences of special-status species, not yet recorded in the City Area, may be documented in the future. Recommendations to avoid, minimize, or mitigate potential impacts to special-status species from future project-related actions within the City are included in the following sections.

5.2.1 Wildlife

WLD-1: If an action has potential to adversely impact amphibian species (e.g., may impact potential habitat for amphibians or may otherwise result in disturbance to amphibians from noise, light, or some other potentially disturbing activity), determine if the proposed project falls within the mapped survey area for amphibian species (arroyo toad, California red-legged frog, and mountain yellow-legged frog [Rana muscosa]) and if suitable habitat is present, then focused surveys will be required. Focused surveys should be conducted in accordance with accepted survey protocols for the arroyo toad, California red-legged frog, and mountain yellow-legged frog. If the proposed project is not located within an amphibian survey area, include a statement to this effect and no further action is required. If it is determined after the habitat assessment that there is no potential habitat for amphibian species to occur within the proposed project, a conclusion that no suitable habitat is present on the site supported with solid evidence and no other measures are recommended. If conditions or circumstances change after the environmental analysis is conducted and prior to implementation of the action, then the validity of the results should be confirmed, or an updated environmental analysis should be conducted prior to impacting the project site.

If amphibian species are identified within the project site and the proposed project cannot avoid (permanent or temporary) at least 90% of the occupied portion of the property that contributes to the long-term conservation value of the species, a DBESP is required. A solid justification regarding how the 90% and 10% determinations were made is required.

WLD-2: If an action has potential to adversely impact the burrowing owl (Athene cunicularia) (e.g., may impact potential habitat or may otherwise result in disturbance to burrowing owls from

noise, light, or some other potentially disturbing activity), determine if the proposed project falls within the mapped (designated) survey area for the burrowing owl and if suitable habitat is present, then focused surveys will be required. Focused surveys should be conducted in accordance with the MSHCP Burrowing Owl Survey Instructions and during the breeding season (survey window is March 1-August 31). If the proposed project is not located within the burrowing owl survey area, include a statement to this effect and no further action is required. If it is determined after the habitat assessment that there is no potential habitat for burrowing owls to occur within the project site, a conclusion that no suitable habitat is present on the site supported with solid evidence and no other measures are recommended. If conditions or circumstances change after the environmental analysis is conducted and prior to implementation of the action, then the validity of the results should be confirmed, or an updated environmental analysis should be conducted prior to impacting the project site.

If burrowing owls are not found during focused surveys, documentation should include a written commitment to conduct pre-construction surveys for the burrowing owl in areas of suitable habitat no more than 30 days prior to the initiation of ground disturbance (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging, grading, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies and will need to coordinate further with RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey will be required again to ensure burrowing owl has not colonized the site since it was last disturbed. If the burrowing owl is found, the same coordination described above will be necessary.

If burrowing owls are identified within the project site and the proposed project cannot avoid (permanent or temporary) at least 90% of the occupied portion of the property that contributes to the long-term conservation value of the species, a DBESP is required and a Burrowing Owl Protection and Relocation Plan. A solid justification regarding how the 90% and 10% determinations were made is required.

WLD-3: If the proposed project falls within an area with Delhi soils mapped using the MSHCP baseline data, an assessment of habitat for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*; DSFLF) is required. If an action has potential to adversely impact DSFLF and if suitable habitat is present, then 2 years of focused surveys will be required. Focused surveys should be conducted in accordance with the accepted USFWS protocol and surveys are conducted 2 times per week from July 1 to September 20 for 2 consecutive years under suitable conditions. If the proposed project is not located within a Delhi soil mapped area, include a statement to this effect and no further action is required. If it is determined

after the habitat assessment that there is no potential habitat for DSFLF to occur within the project site, a conclusion that no suitable habitat is present on the site supported with solid evidence and no other measures are recommended. If conditions or circumstances change after the environmental analysis is conducted and prior to implementation of the action, then the validity of the results should be confirmed, or an updated environmental analysis should be conducted prior to impacting the proposed project.

- If DSFLF are identified within the project site and the proposed project cannot avoid DSFLF (permanent or temporary) then 75% of mapped Delhi soils on the site must be conserved and a DBESP is required. A solid justification regarding how the 75% determination was made is required and must be conducted in coordination with USFWS.

WLD-4: If an action has potential to adversely impact vernal pools or other suitable fairy shrimp habitats, then focused surveys will be required. Focused surveys should be conducted pursuant to the USFWS Survey Guidelines for the Listed Large Branchiopods, which includes six listed fairy shrimp species, including those species covered under the MSHCP Section 6.1.2. Two seasons of fairy shrimp surveys are required. If it is determined after the habitat assessment that there is no potential habitat for vernal pools or fairy shrimp species to occur within the project site, a conclusion that no suitable habitat is present on the site supported with solid evidence and no other measures are recommended. If conditions or circumstances change after the environmental analysis is conducted and prior to implementation of the action, then the validity of the results should be confirmed, or an updated environmental analysis should be conducted prior to impacting the proposed project.

- If fairy shrimp species are identified within the project site and the proposed project cannot avoid (permanent or temporary) at least 90% of the occupied portion of the property that contributes to the long-term conservation value of the species, a DBESP is required. A solid justification regarding how the 90% and 10% determinations were made is required.

WLD-5: If an action has potential to adversely impact riparian bird species (least Bell's vireo, southwestern willow flycatcher, or yellow-billed cuckoo [*Coccyzus americanus*]), if suitable habitat (nesting and/or foraging) is present, then protocol-level focused surveys will be required. Focused surveys should be conducted in accordance with accepted USFWS survey protocols for the least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo. If it is determined after the habitat assessment that there is no potential habitat for riparian bird species to occur within the project site, a conclusion that no suitable habitat is present on the site supported with solid evidence and no other measures are recommended. If conditions or circumstances change after the environmental analysis is conducted and prior to implementation of the action, then the validity of the results should be confirmed, or an updated environmental analysis should be conducted prior to impacting the proposed project.

- If least Bell's vireo are identified within the project site and the proposed project cannot demonstrate 90% avoidance of the occupied portion of the property that contributes to the long-term conservation value of the species, a DBESP is required. This includes 100 meters of undeveloped landscape on the property adjacent to the habitat conserved. A solid justification regarding how the 90% and 10% determinations were made is required.
- If southwestern willow flycatcher or yellow-billed cuckoo are identified within the project site, if the proposed project cannot avoid and demonstrate 100% conservation of the property that contributes to the long-term conservation value of the species, a DBESP is required. This includes 100 meters of undeveloped landscape on the property adjacent to the habitat conserved.

WLD-6: If suitable habitat is present (i.e., coastal sage scrub, Riversidean sage scrub) and an action has potential to adversely impact the coastal California gnatcatcher, avoid clearing, grubbing, grading, and associated construction actions in gnatcatcher occupied habitat within the Criteria Cells and/or PQP lands between March 1 and August 15. If this species is detected and the project could be potentially occupied and the habitat cannot be avoided, this habitat cannot be removed from March 1 to August 15 without conducting focused protocol-level surveys to prove absence. The MSHCP does not allow take of any nesting birds , regardless of the time of year, pursuant to the MBTA and applicable Fish and Game Codes.

BRD-1: If an action that may adversely impact birds or nests (e.g., ground or vegetation disturbance, noise near nesting habitat) and is expected is to occur during the nesting season (generally February 1 through September 15), a pre-construction nesting-bird survey should be conducted for all suitable nesting habitat within 3 days prior to implementation of the action. The survey should be conducted by a qualified biologist within the project site plus a buffer for the project as determined by the qualified biologist (based on the action and what bird species may be impacted). If no nesting birds are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors) are found to be present, avoidance or minimization measures shall be undertaken to avoid potential Project-related impacts. Measures may include seasonal work restrictions or establishment of a non-disturbance buffer around each active nest until nesting has been completed as determined through periodic nest monitoring by the biologist. The size of the non-disturbance buffer will be determined by the Project biologist. Typically, this is 300-feet from the nest site in all directions (500-feet is typically recommended by CDFW for listed species and raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting. Once nesting is deemed complete by the Project biologist, work may resume within the buffer.

5.3 Riparian Habitat/Riverine Areas, and Vernal Pools

VEG-1: If sensitive natural communities (riparian habitat, riverine areas, vernal pools) are identified within the impact area (permanent and temporary, direct and indirect), appropriate measures to avoid, minimize, or mitigate for impacts to sensitive natural communities should be implemented. If riparian/riverine resources and vernal pools are proposed for avoidance, the report should include a commitment to place a conservation easement or deed restriction over the area in order to demonstrate that the area will be protected in perpetuity. If the proposed project cannot avoid riparian/riverine habitat and/or vernal pools in perpetuity (both permanent and temporarily), a DBESP would be required that would propose mitigation that demonstrates equivalent or superior function and value.

RIP-1: If an action will impact riparian habitat, a Lake and Streambed Alteration Agreement, pursuant to Section 1602 of the California Department of Fish and Game Code should be obtained. Minimization measures will be developed during consultation with CDFW as part of the Lake and Streambed Alteration Agreement process to ensure protection for affected fish and wildlife resources.

5.4 Aquatic Resources, Including Waters of the U.S. and State

WTR-1: If an action has the potential to impact aquatic resources, an environmental analysis (i.e., a preliminary aquatic resources delineation) should be conducted to determine if potentially regulated aquatic resources occur within the proposed project. A qualified wetland delineator should conduct the environmental analysis and it should include review of the best available hydrological information, a reconnaissance-level site visit, and an evaluation of aquatic resources to determine the potential for regulated aquatic resources to occur within the project site. If it is determined that there are no potentially regulated aquatic resources, no other measures are recommended. If conditions or circumstances change after the environmental analysis is conducted and prior to implementation of the action, the validity of the results should be confirmed or an updated environmental analysis should be conducted prior to impacting the proposed project.

WTR-2: If an action may impact potentially regulated aquatic resources, an aquatic resources delineation should be conducted for the project consistent with the methods detailed within the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008), and State Wetlands Definitions and Procedures for Discharges of Dredged and Fill Material to Waters of the State, and local policies by the CDFW regarding their jurisdiction, following the definitions contained within the California Fish and Game Code pertaining to regulated resources (lakes, streams, and associated hydrophytic vegetation). If it is determined that potentially regulated aquatic resources are absent from the project site or will not be impacted by the action, no other measures are recommended. If it is determined that potentially regulated aquatic resources may be impacted by the

action, the delineation should be submitted to the USACE, and a Preliminary Jurisdictional Determination or Approved Jurisdictional Determination should be obtained.

5.5 Wildlife Movement/Corridors and Nursery Sites

WLD-7: If an action will substantially impact wildlife movement, established wildlife corridors, or impede the use of nursery sites, measures to avoid, minimize, or mitigate for significant impacts should be implemented and may be determined in consultation with the appropriate regulatory agency (e.g., CDFW, USFWS).

5.6 Local Policies, Ordinances, and Other Plans

Local policies and ordinances that are applicable to the City are discussed earlier in Section 2.3 of this document. Projects should ensure that these local policies and ordinances are included in the assessment of impacts to biological resources and any required mitigation to reduce impacts.

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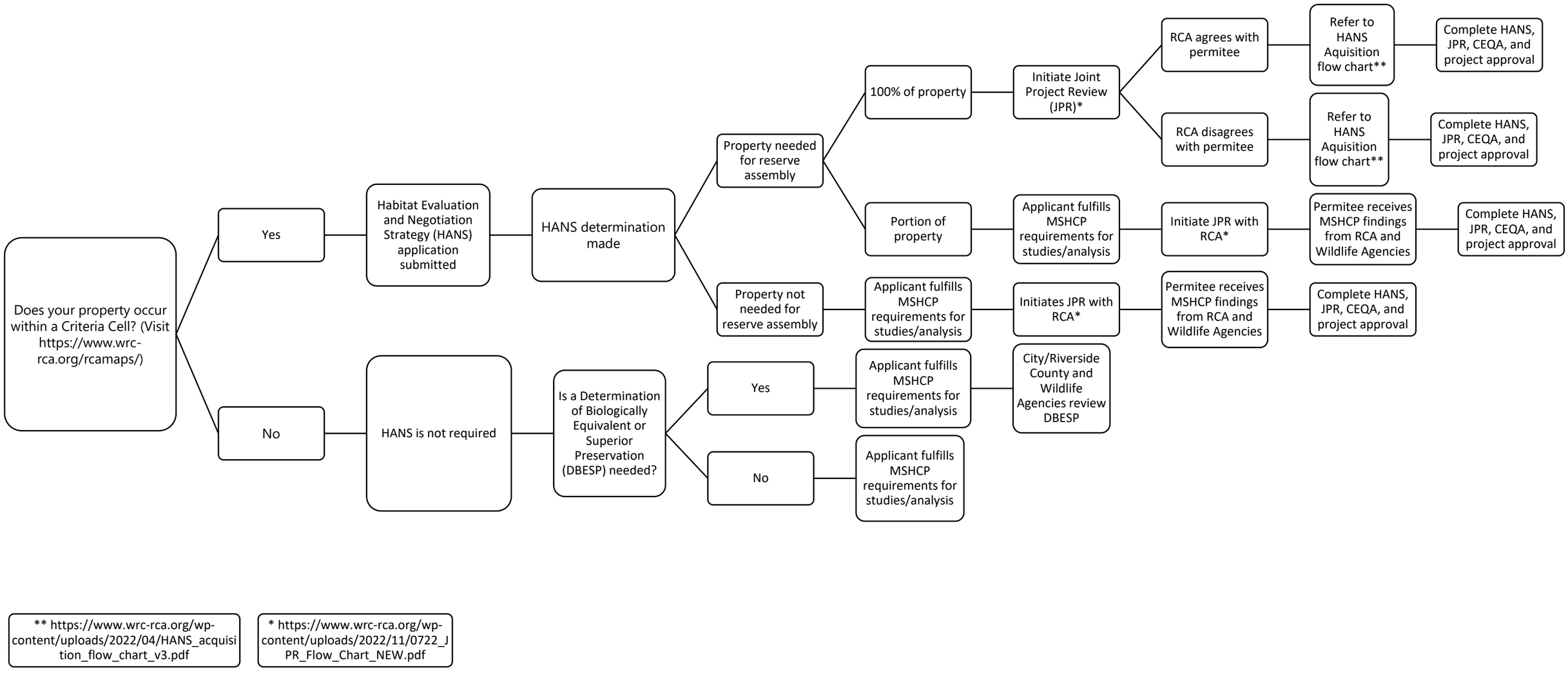
LIST OF APPENDICES

APPENDIX A

Biological Resources Recommendations Flow Charts

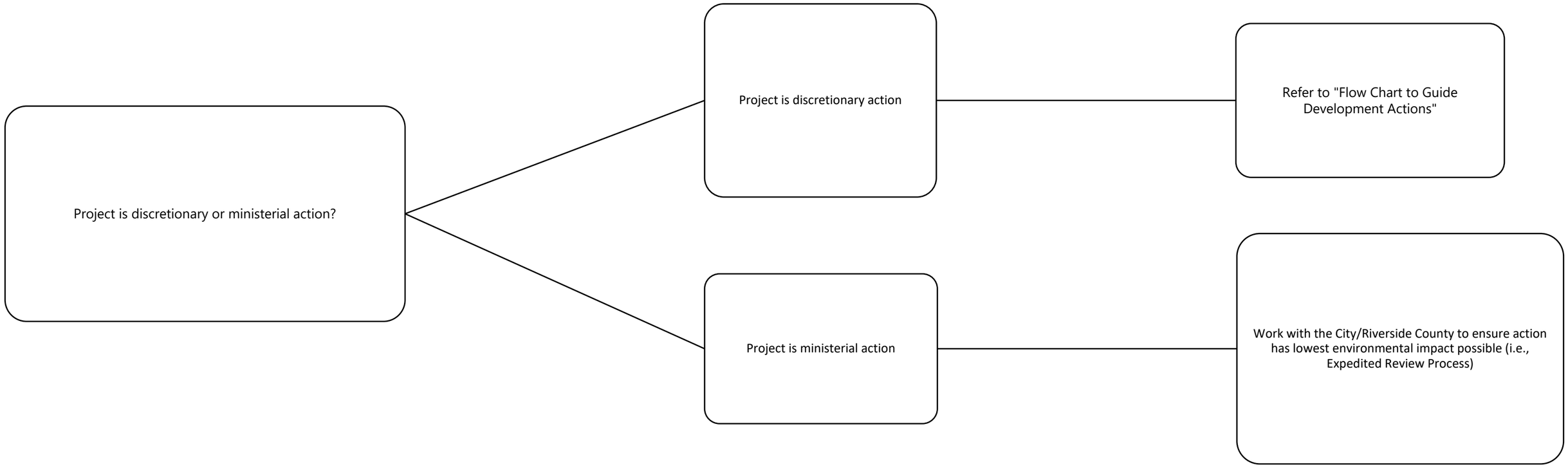
FLOW CHART TO GUIDE DEVELOPMENT APPLICATIONS



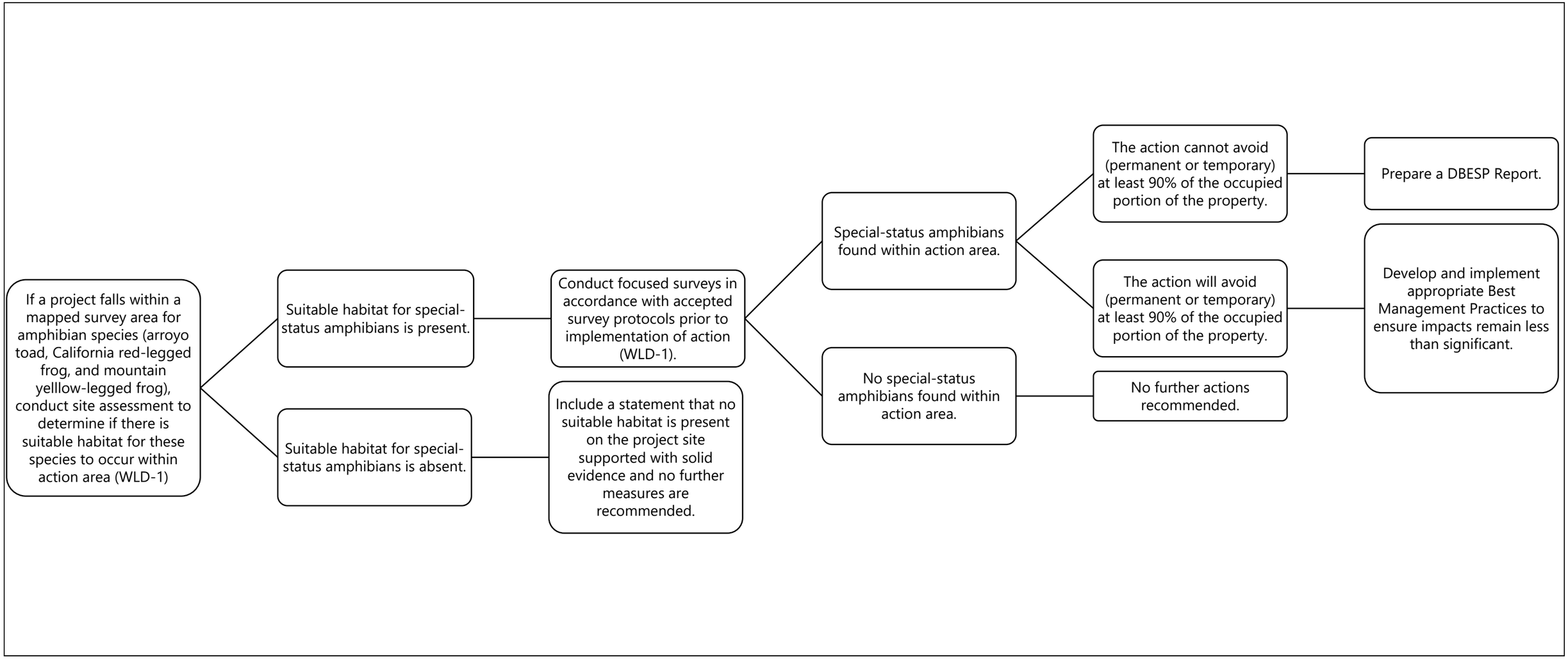
** https://www.wrc-rca.org/wp-content/uploads/2022/04/HANS_acquisition_flow_chart_v3.pdf

* https://www.wrc-rca.org/wp-content/uploads/2022/11/0722_JPR_Flow_Chart_NEW.pdf

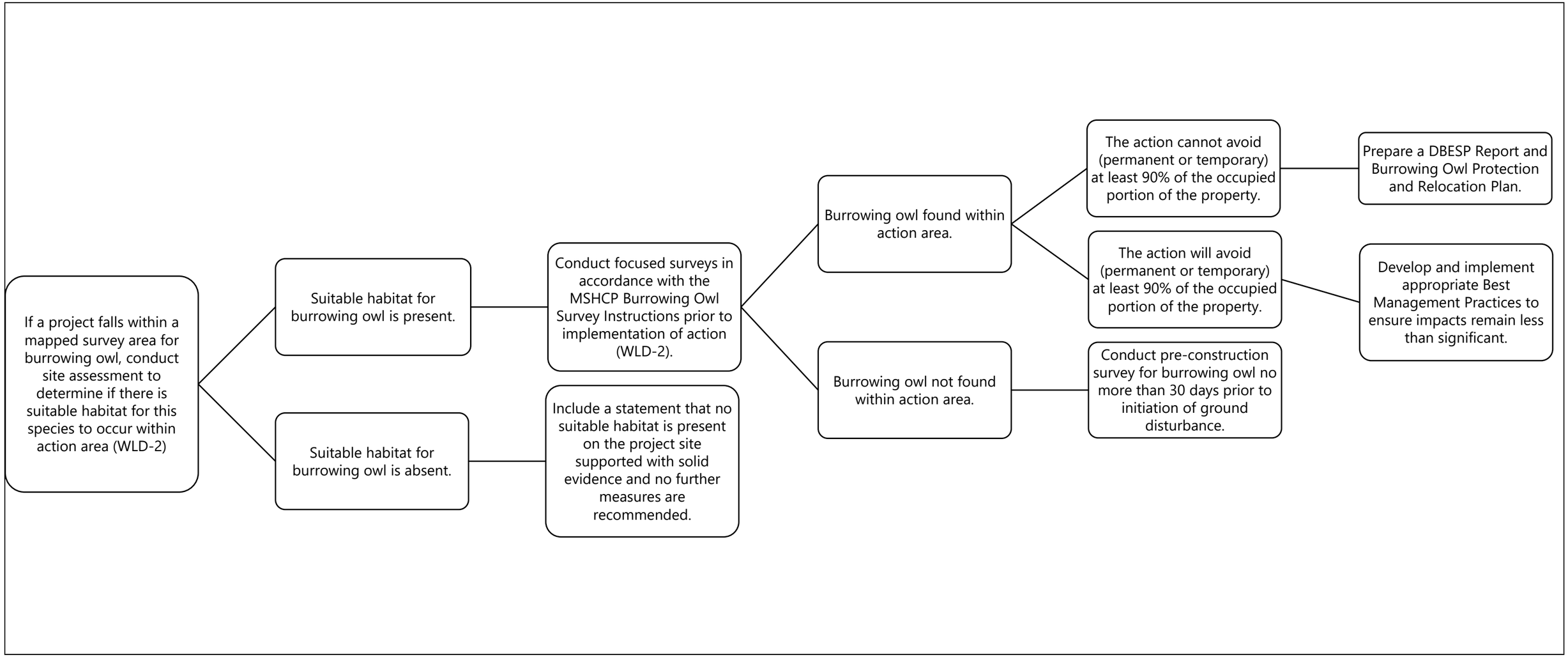
FLOW CHART BASED ON PROJECT ACTION



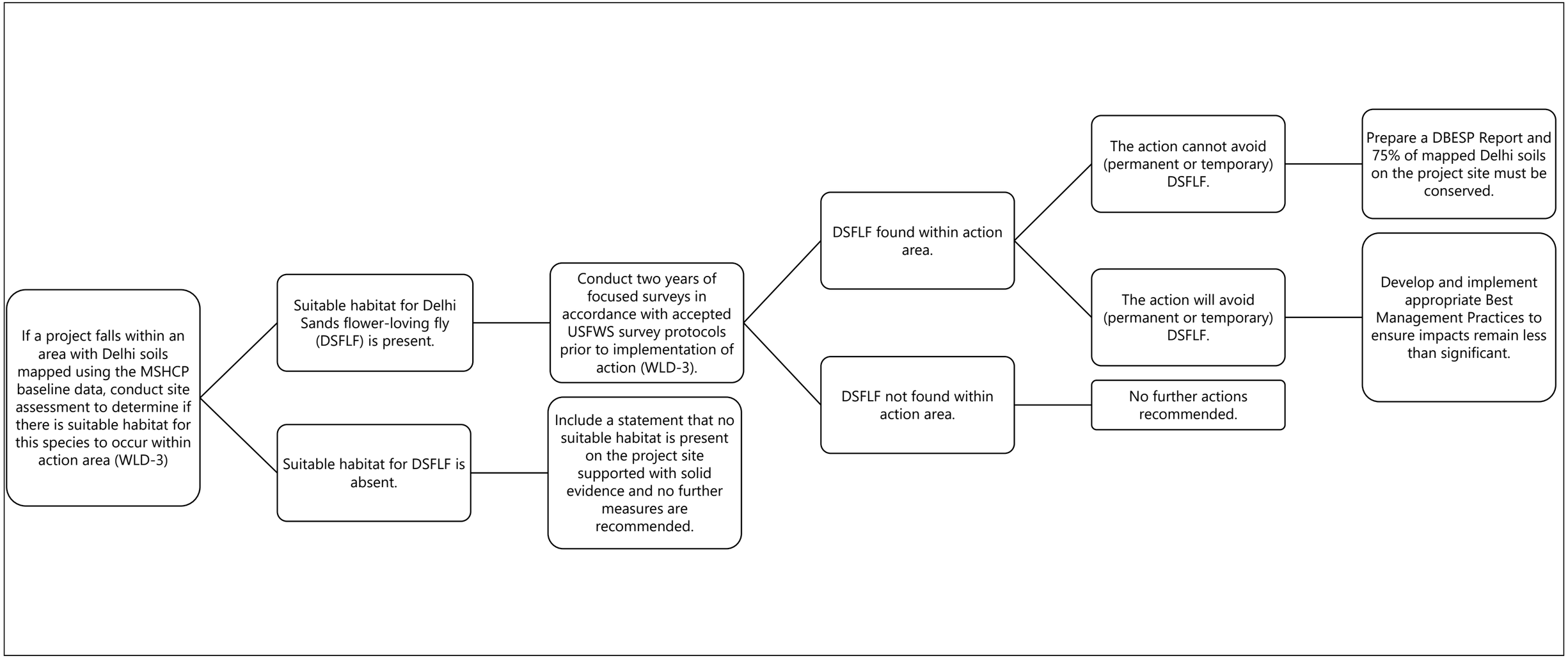
FLOW CHART TO GUIDE SPECIAL-STATUS WILDLIFE (AMPHIBIANS) RECOMMENDATIONS



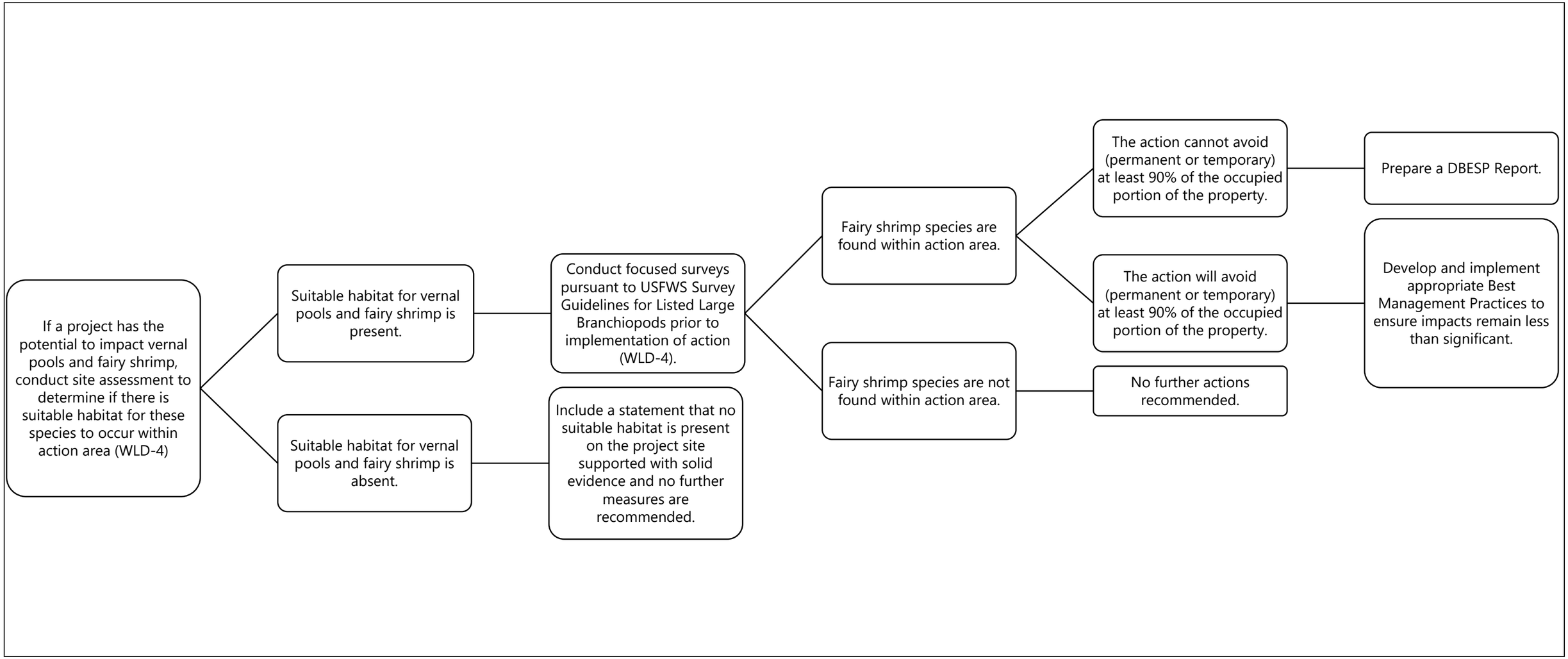
FLOW CHART TO GUIDE BURROWING OWL RECOMMENDATIONS



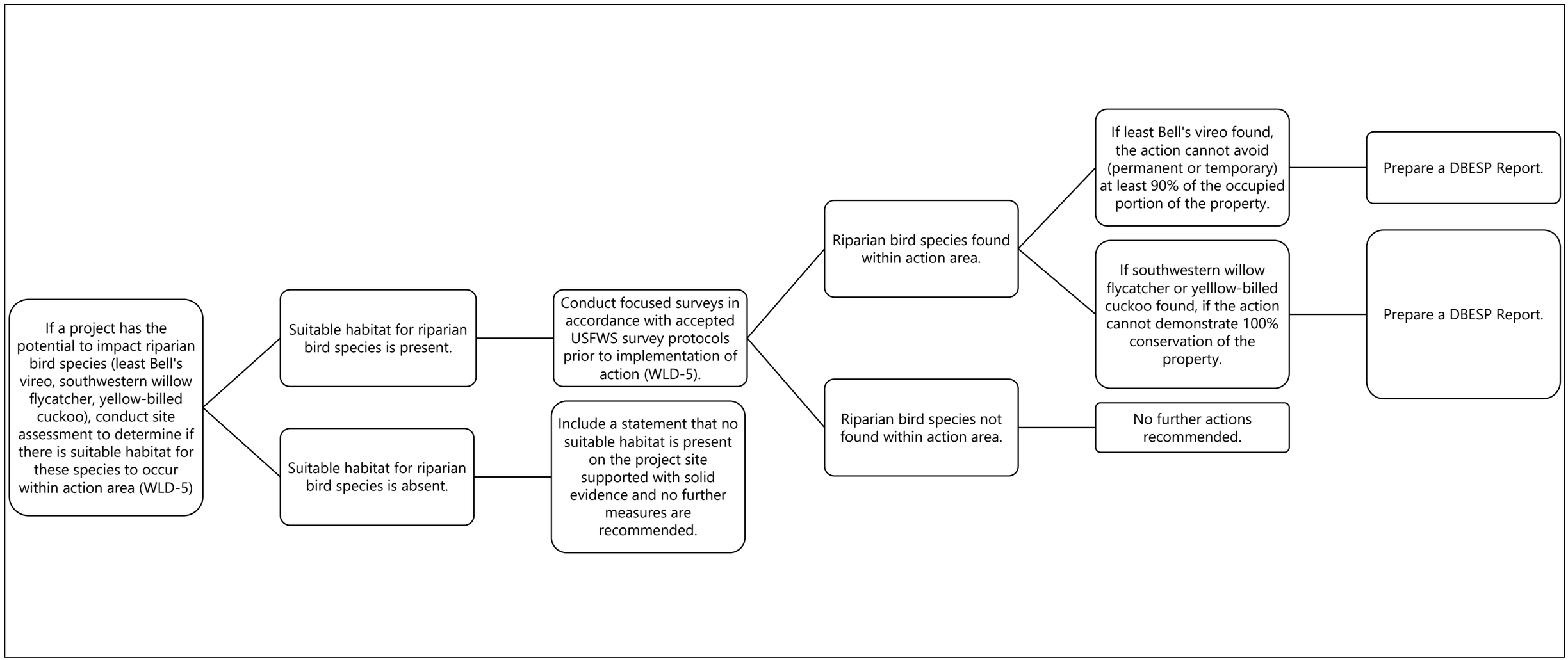
FLOW CHART TO GUIDE DELHI SANDS FLOWER-LOVING FLY RECOMMENDATIONS



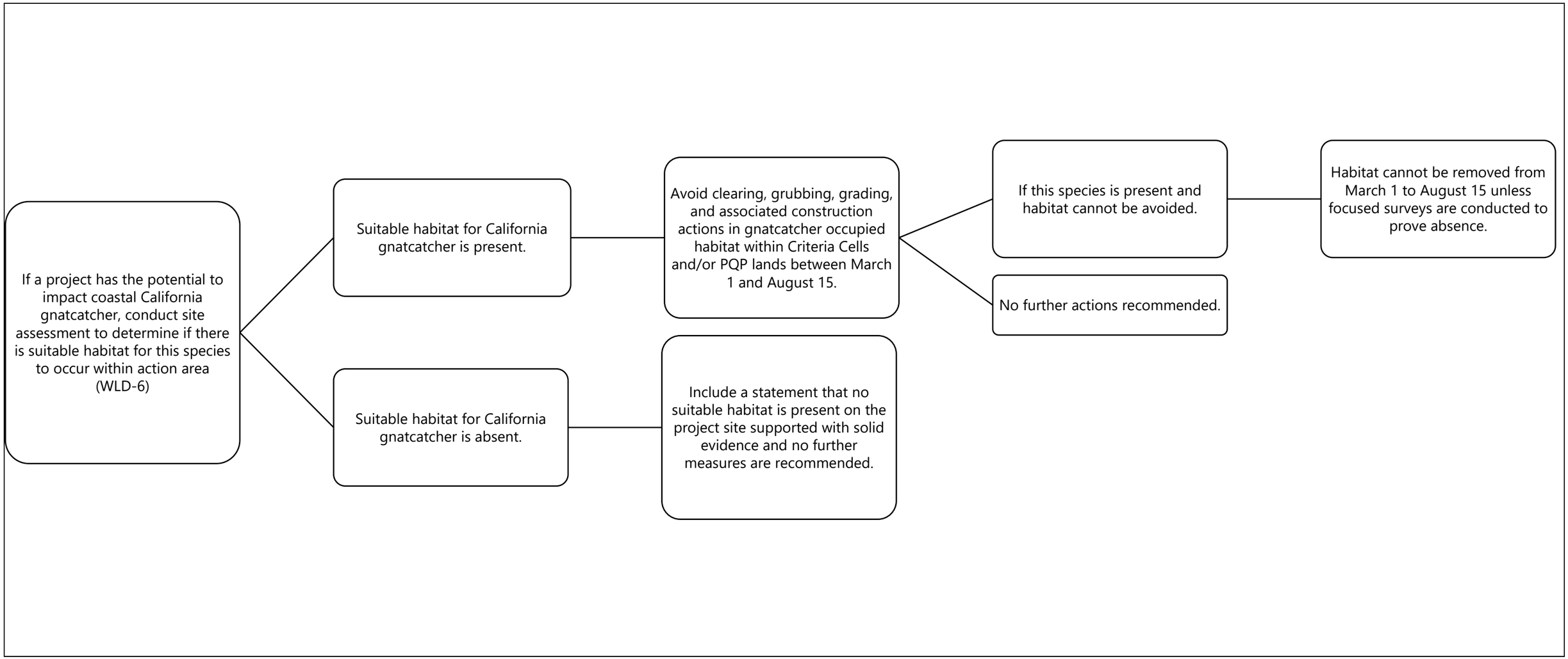
FLOW CHART TO GUIDE VERNAL POOLS AND FAIRY SHRIMP RECOMMENDATIONS



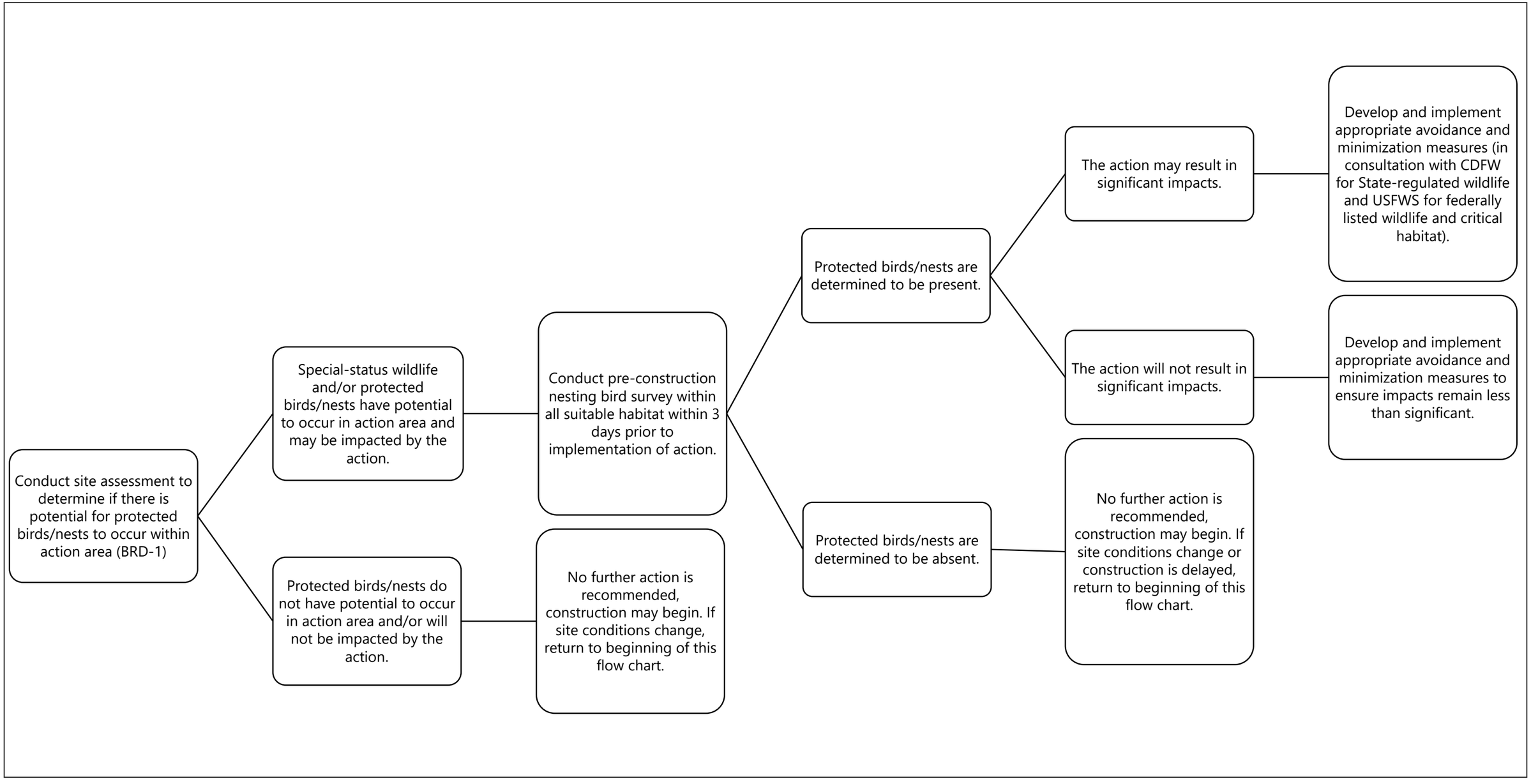
FLOW CHART TO GUIDE RIPARIAN BIRD SPECIES RECOMMENDATIONS



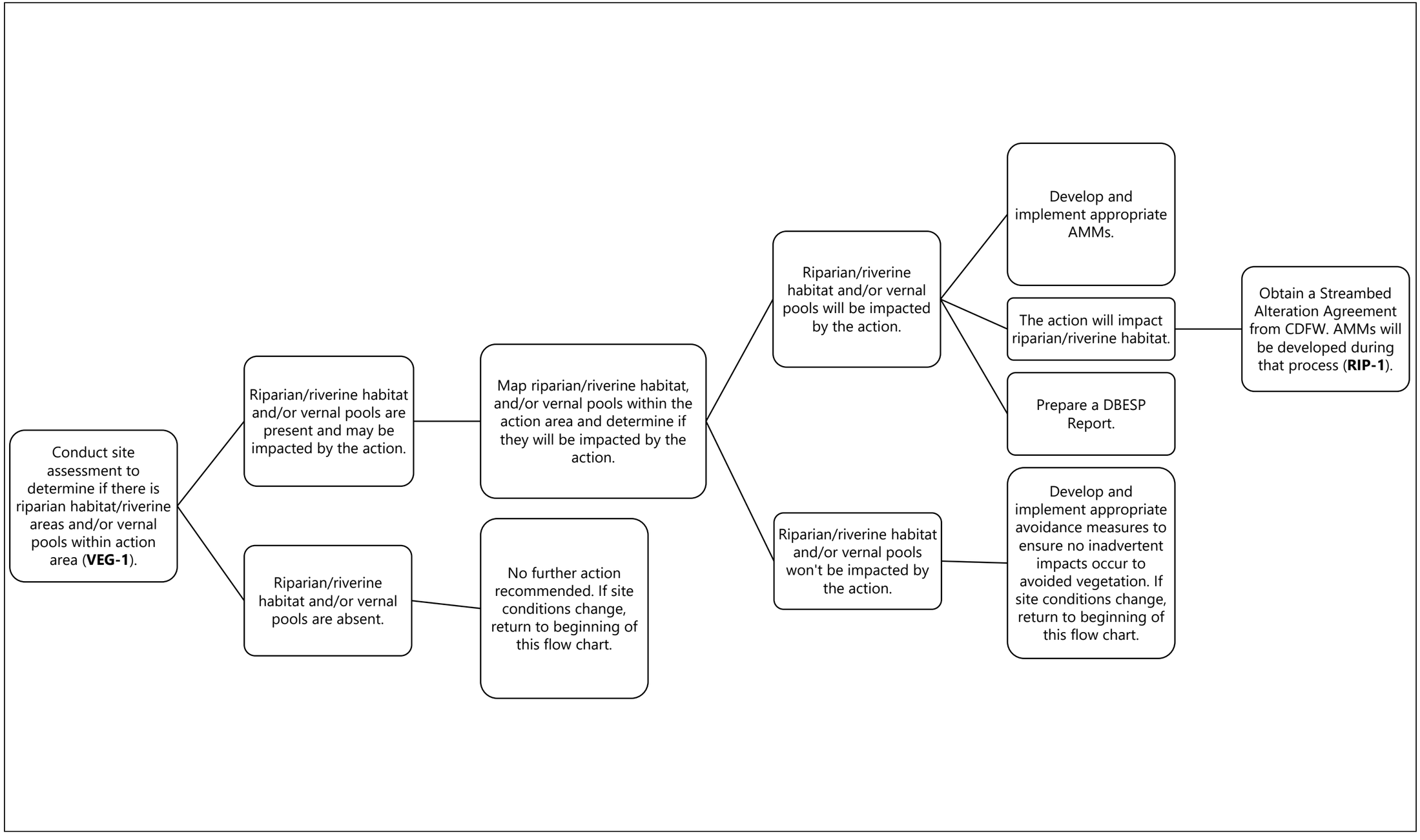
FLOW CHART TO GUIDE COASTAL CALIFORNIA GNATCATCHER RECOMMENDATIONS



FLOW CHART TO GUIDE SPECIAL-STATUS WILDLIFE (INCLUDING PROTECTED BIRDS/NESTS) RECOMMENDATIONS



FLOW CHART TO GUIDE RIPARIAN HABITAT/RIVERINE AREAS AND VERNAL POOLS



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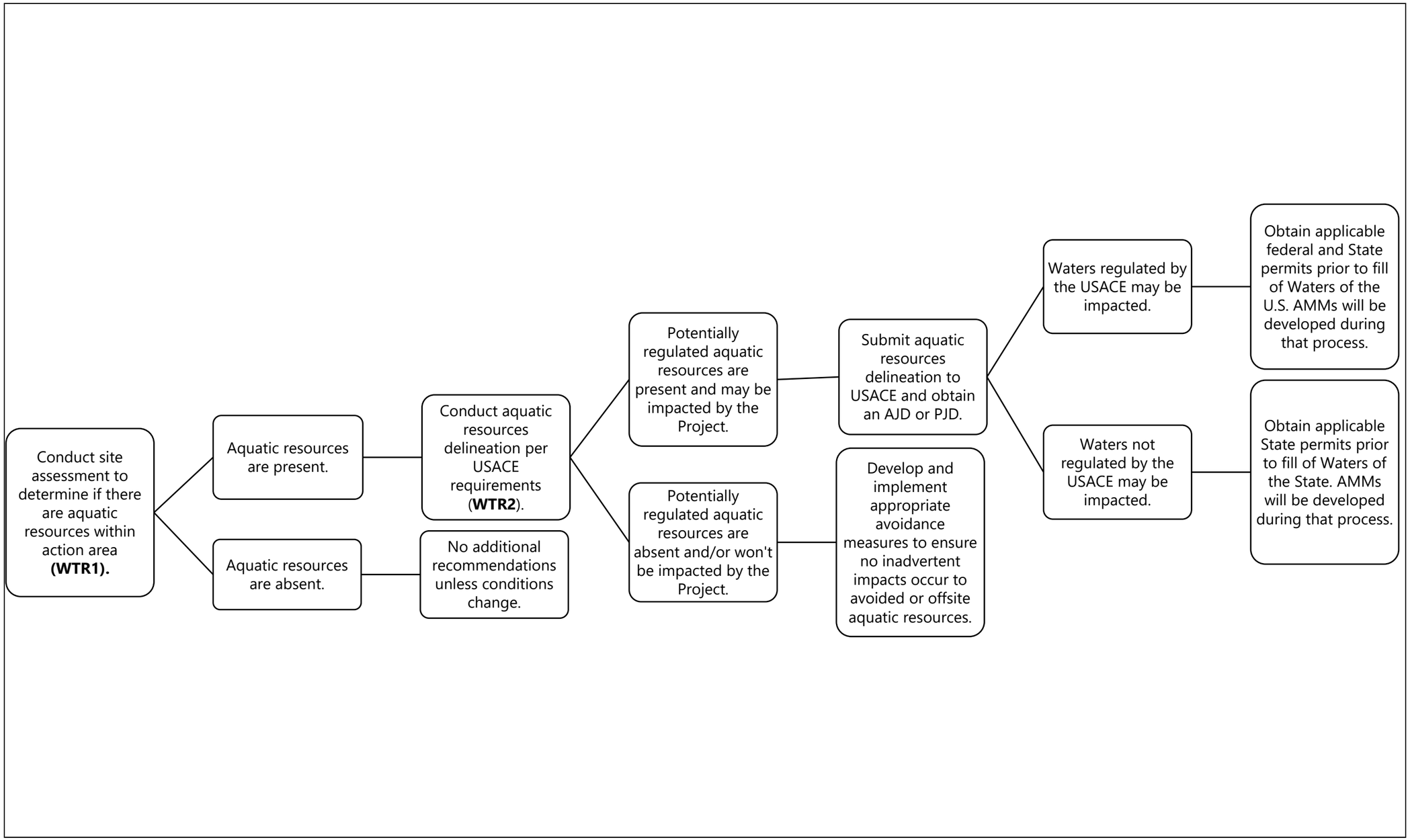

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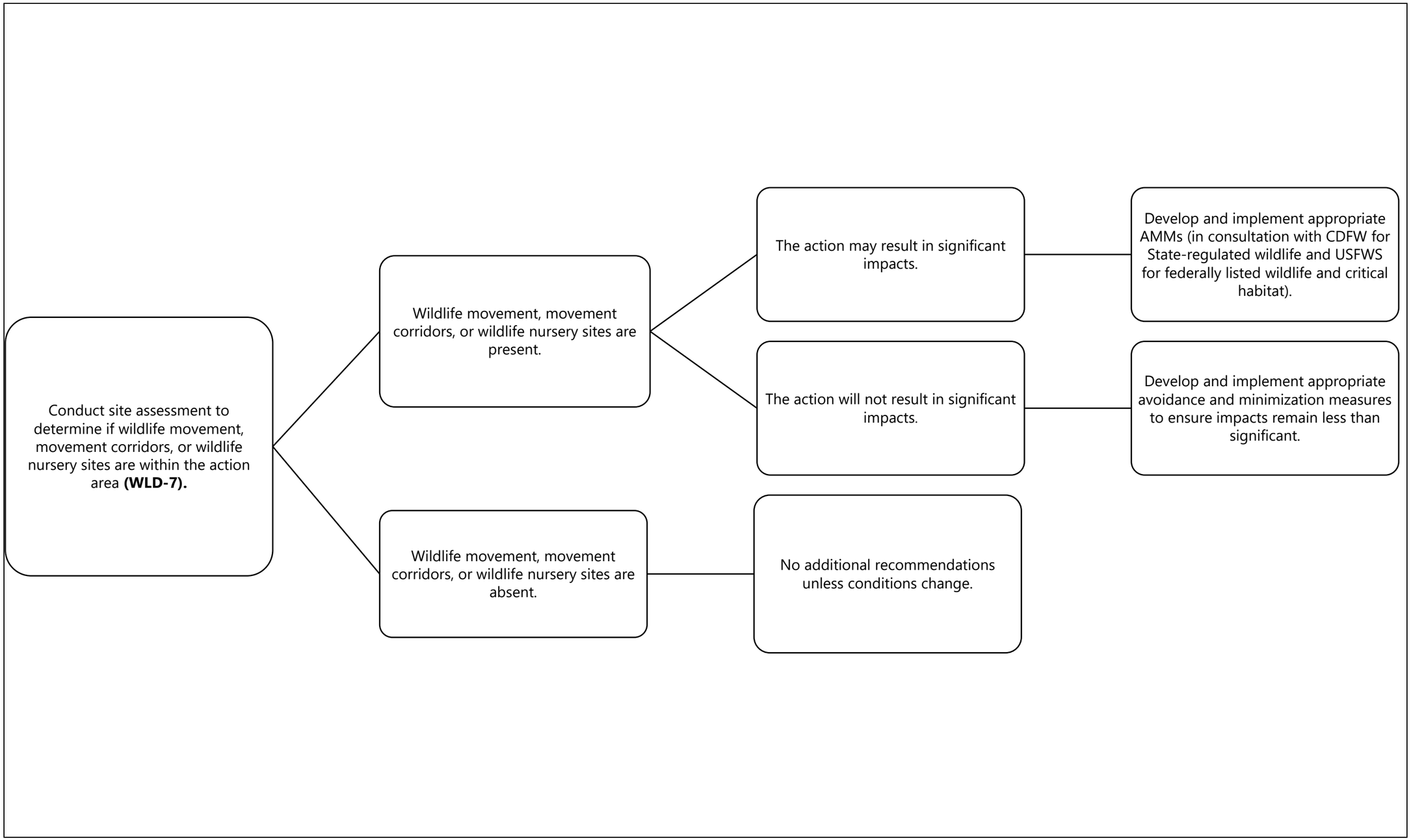
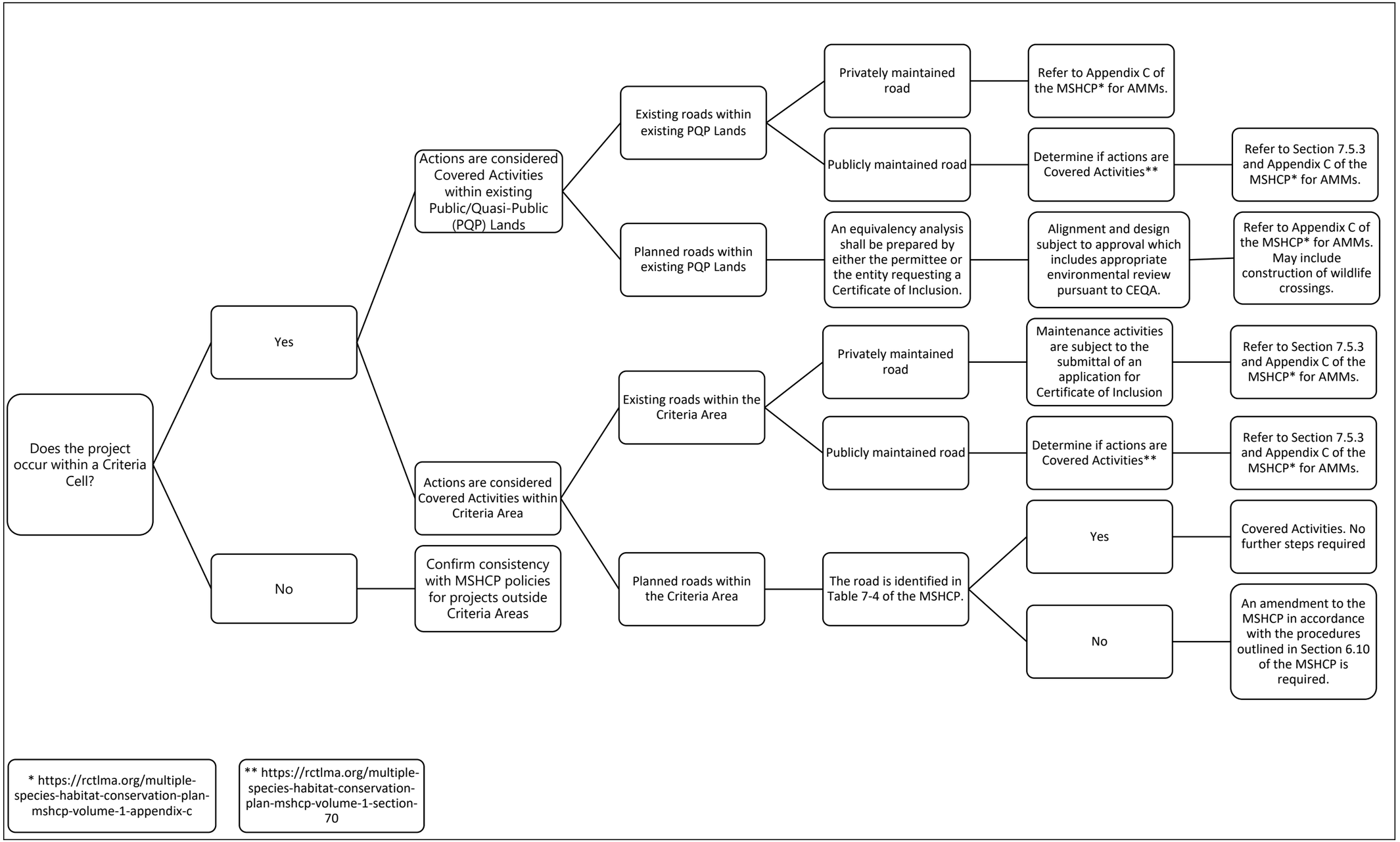


FLOW CHART TO GUIDE COVERED ROADS RECOMMENDATIONS



LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
AJD	Approved Jurisdictional Delineation
AMMs	Avoidance, Minimization, and Mitigation Measures
CDFW	California Department of Fish and Wildlife
EFH	Essential Fish Habitat
NMFS	National Marine Fisheries Service
PJD	Preliminary Jurisdictional Delineation
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

APPENDIX B

2024 MSHCP Fee Schedule

Regional Conservation Authority
Western Riverside County

4080 Lemon St. 3rd Fl. Riverside, CA 92501
Mailing Address: P.O. Box 12008 Riverside, CA 92502-2208
951.787.7141 • wrc-rca.org

WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN

LOCAL DEVELOPMENT MITIGATION FEE SCHEDULE FOR FISCAL YEAR 2024
(Effective July 1, 2023 – June 30, 2024)

Fee Category	Fee
Residential, density less than 8.0 dwelling units per acre (fee per dwelling unit)	$4,236
Residential, density between 8.0 and 14.0 dwelling units per acre (fee per dwelling unit)	$1,766
Residential, density greater than 14.0 dwelling units per acre (fee per dwelling unit)	$781
Commercial (fee per acre)	$19,066
Industrial (fee per acre)	$19,066

APPENDIX C

Stephens' Kangaroo Rat (SKR) Plan Area

RCHCA

RIVERSIDE COUNTY HABITAT CONSERVATION AGENCY

SKR CORE RESERVES

1. LAKE MATHEWS / ESTELLE MOUNTAIN
2. SYCAMORE CANYON
3. STEELE PEAK
4. MOTTE / RIMROCK
5. SAN JACINTO/LAKE PERRIS
6. POTRERO ACEC
7. SOUTHWEST RIVERSIDE COUNTY MULTI-SPECIES RESERVE
8. POTRERO RESERVE

- Major Roads
- Highways
- SKR Plan Area
- County of Riverside
- Cities
- Waterbodies Excluded From Core Reserve

N

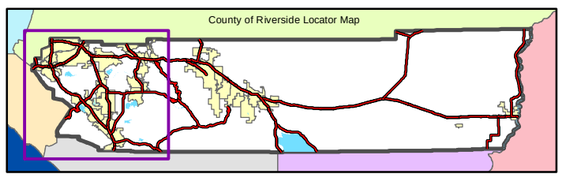
0 1.5 3 6 9 12

Miles

Map Source - County of Riverside, TLMA/GIS
Map Created By Vinnie Nguyen
\Projects\RCHCA\CRB_Project\mxds\SKR Plan Area (All)\SKRPlanArea_UpdatedVinnieNov142018.mxd

Coordinate System: NAD83 State Plane VI FIPS0406 (Feet)

County of Riverside Locator Map



SKR HCP Map Modification By Vinnie - 12/12/2018
SKR HCP Boundary Modification - 06/2007

APPENDIX D

Literature Review and Database Results

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To:
Project Code: 2023-0134261
Project Name: City of Wildomar GP

September 27, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A biological assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a biological assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a biological assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found at the Fish and Wildlife Service's Endangered Species Consultation website at:

https://www.fws.gov/service/esa-section-7-consultation

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

PROJECT SUMMARY

Project Code: 2023-0134261
Project Name: City of Wildomar GP
Project Type: Introduction
Project Description: The City is working on its first city-specific general plan.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.6162489,-117.2559753331285,14z

Counties: Riverside County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 20 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2060	Endangered
Stephens' Kangaroo Rat *Dipodomys stephensi (incl. D. cascus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3495	Threatened

BIRDS

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

AMPHIBIANS

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad *Anaxyrus californicus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3762	Endangered
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Quino Checkerspot Butterfly *Euphydryas editha quino (=E. e. wrighti)* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5900	Endangered

CRUSTACEANS

NAME	STATUS
Riverside Fairy Shrimp *Streptocephalus woottoni* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8148	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

FLOWERING PLANTS

NAME	STATUS
California Orcutt Grass *Orcuttia californica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4923	Endangered
Munz's Onion *Allium munzii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2951	Endangered
San Diego Ambrosia *Ambrosia pumila* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8287	Endangered
San Diego Button-celery *Eryngium aristulatum var. parishii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5937	Endangered
San Jacinto Valley Crownscale *Atriplex coronata var. notatior* There is **final** critical habitat for this species. However, no *actual* acres or miles were designated due to exemptions or exclusions. See Federal Register publication for details. Species profile: https://ecos.fws.gov/ecp/species/4353	Endangered
Slender-horned Spineflower *Dodecahema leptoceras* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4007	Endangered
Spreading Navarretia *Navarretia fossalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* https://ecos.fws.gov/ecp/species/8178#crithab	Final

IPAC USER CONTACT INFORMATION

Agency: ECORP Consulting, Inc.
Name: Corrina Tapia
Address: 215 N 5th Street
City: Redlands
State: CA
Zip: 92374
Email ctapia@ecorpconsulting.com
Phone: 9092552983

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE RareFind

Query Summary:
Quad IS (Wildomar (3311753) OR Murrieta (3311752) OR Romoland (3311762) OR Lake Elsinore (3311763))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Abronia villosa var. aurita	chaparral sand-verbena	Dicots	PDNYC010P1	98	1	None	None	G5T2?	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert dunes
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	118	4	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	ABPBX91091	235	20	None	None	G5T3	S4	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Allium marvinii	Yucaipa onion	Monocots	PMLIL02330	47	2	None	None	G1	S1	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral
Allium munzii	Munz's onion	Monocots	PMLIL022Z0	21	8	Endangered	Threatened	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub, Pinon & juniper woodlands, Valley & foothill grassland
Almutaster pauciflorus	alkali marsh aster	Dicots	PDASTEL010	7	1	None	None	G4	S1S2	2B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Meadow & seep
Ambrosia pumila	San Diego ambrosia	Dicots	PDAST0C0M0	61	3	Endangered	None	G1	S1	1B.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Valley & foothill grassland
Anaxyrus californicus	arroyo toad	Amphibians	AAABB01230	139	1	Endangered	None	G2G3	S2	null	CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered	Desert wash, Riparian scrub, Riparian woodland, South coast flowing waters, South coast standing waters
Anniella stebbinsi	Southern California legless lizard	Reptiles	ARACC01060	426	3	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	325	2	None	None	G5	S3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, CDFW_WL-Watch List, IUCN_LC-Least Concern	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland

Arctostaphylos rainbowensis	Rainbow manzanita	Dicots	PDERI042T0	89	15	None	None	G2	S2	1B.1	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Ultramafic
Arizona elegans occidentalis	California glossy snake	Reptiles	ARADB01017	260	6	None	None	G5T2	S2	null	CDFW_SSC-Species of Special Concern	null
Artemisiospiza belli belli	Bell's sparrow	Birds	ABPBX97021	61	13	None	None	G5T2T3	S3	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Aspidoscelis hyperythra	orange-throated whiptail	Reptiles	ARACJ02060	369	26	None	None	G5	S2S3	null	CDFW_WL-Watch List, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub
Aspidoscelis tigris stejnegeri	coastal whiptail	Reptiles	ARACJ02143	148	1	None	None	G5T5	S3	null	CDFW_SSC-Species of Special Concern	null
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2011	35	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Atriplex coronata var. notatior	San Jacinto Valley crownscale	Dicots	PDCHE040C2	16	1	Endangered	None	G4T1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Alkali playa, Valley & foothill grassland, Vernal pool, Wetland
Ayenia compacta	California ayenia	Dicots	PDSTE01020	74	1	None	None	G4	S3	2B.3	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Desert wash, Mojavean desert scrub, Sonoran desert scrub
Bombus crotchii	Crotch bumble bee	Insects	IIHYM24480	437	4	None	Candidate Endangered	G2	S2	null	IUCN_EN-Endangered	null
Bombus pensylvanicus	American bumble bee	Insects	IIHYM24260	225	3	None	None	G3G4	S2	null	IUCN_VU-Vulnerable	Coastal prairie, Great Basin grassland, Valley & foothill grassland
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	796	2	Threatened	None	G3	S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland, Vernal pool, Wetland
Branchinecta sandiegonensis	San Diego fairy shrimp	Crustaceans	ICBRA03060	122	1	Endangered	None	G2	S1	null	IUCN_EN-Endangered	Chaparral, Coastal scrub, Vernal pool, Wetland
Brodiaea filifolia	thread-leaved brodiaea	Monocots	PMLIL0C050	141	6	Threatened	Endangered	G2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Brodiaea santarosae	Santa Rosa Basalt brodiaea	Monocots	PMLIL0C0G0	12	8	None	None	G1	S1	1B.2	USFS_S-Sensitive	Valley & foothill grassland
Buteo regalis	ferruginous hawk	Birds	ABNKC19120	107	2	None	None	G4	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Great Basin grassland, Great Basin scrub, Pinon & juniper woodlands, Valley & foothill grassland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2561	1	None	Threatened	G5	S4	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
Calochortus weedii var. intermedius	intermediate mariposa-lily	Monocots	PMLIL0D1J1	197	3	None	None	G3G4T3	S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Centromadia pungens ssp. laevis	smooth tarplant	Dicots	PDAST4R0R4	137	33	None	None	G3G4T2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Alkali playa, Chenopod scrub, Meadow & seep, Riparian woodland,

												Valley & foothill grassland, Wetland
Chaetodipus californicus femoralis	Dulzura pocket mouse	Mammals	AMAFD05021	50	2	None	None	G5T3	S3	null	null	Chaparral, Coastal scrub, Valley & foothill grassland
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	Mammals	AMAFD05031	101	3	None	None	G5T3T4	S3S4	null	null	Chaparral, Coastal scrub
Charadrius nivosus nivosus	western snowy plover	Birds	ABNNB03031	138	1	Threatened	None	G3T3	S3	null	CDFW_SSC-Species of Special Concern	Great Basin standing waters, Sand shore, Wetland
Chorizanthe parryi var. parryi	Parry's spineflower	Dicots	PDPGN040J2	150	26	None	None	G3T2	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Chorizanthe polygonoides var. longispina	long-spined spineflower	Dicots	PDPGN040K1	166	37	None	None	G5T3	S3	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Meadow & seep, Ultramafic, Valley & foothill grassland, Vernal pool
Cicindela senilis frosti	senile tiger beetle	Insects	IICOL02121	9	1	None	None	G2G3T1T3	S1	null	null	Mud shore/flats, Wetland
Clinopodium chandleri	San Miguel savory	Dicots	PDLAM08030	37	6	None	None	G2G3	S2	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Ultramafic, Valley & foothill grassland
Crotalus ruber	red-diamond rattlesnake	Reptiles	ARADE02090	192	8	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Mojavean desert scrub, Sonoran desert scrub
Dipodomys merriami parvus	San Bernardino kangaroo rat	Mammals	AMAFD03143	81	3	Endangered	Candidate Endangered	G5T1	S1	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Dipodomys stephensi	Stephens' kangaroo rat	Mammals	AMAFD03100	226	44	Threatened	Threatened	G2	S3	null	IUCN_VU-Vulnerable	Coastal scrub, Valley & foothill grassland
Dodecahema leptoceras	slender-horned spineflower	Dicots	PDPGN0V010	42	1	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub
Dudleya multicaulis	many-stemmed dudleya	Dicots	PDCRA040H0	154	1	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	184	6	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1518	7	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Eremophila alpestris actia	California horned lark	Birds	ABPAT02011	94	11	None	None	G5T4Q	S4	null	CDFW_WL-Watch List, IUCN_LC-	Marine intertidal & splash zone

											Least Concern	communities, Meadow & seep
Eryngium aristulatum var. parishii	San Diego button-celery	Dicots	PDAPI0Z042	83	3	Endangered	Endangered	G5T1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Eumops perotis californicus	western mastiff bat	Mammals	AMACD02011	296	3	None	None	G4G5T4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Euphydryas editha quino	quino checkerspot butterfly	Insects	IILEPK405L	186	10	Endangered	None	G5T1T2	S1S2	null	null	Chaparral, Coastal scrub
Geothallus tuberosus	Campbell's liverwort	Bryophytes	NBHEP1C010	12	1	None	None	G2	S2	1B.1	IUCN_CR-Critically Endangered	Coastal scrub, Vernal pool, Wetland
Gila orcuttii	arroyo chub	Fish	AFCJB13120	49	1	None	None	G2	S2	null	AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	Aquatic, South coast flowing waters
Harpagonella palmeri	Palmer's grapplinghook	Dicots	PDBOR0H010	57	3	None	None	G4	S3	4.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Valley & foothill grassland
Hesperocyparis forbesii	Tecate cypress	Gymnosperms	PGCUP040C0	27	1	None	None	G2	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_UCSC-UC Santa Cruz, SB_USDA-US Dept of Agriculture, USFS_S-Sensitive	Chaparral, Closed-cone coniferous forest
Icteria virens	yellow-breasted chat	Birds	ABPBX24010	101	1	None	None	G5	S4	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Juncus luciensis	Santa Lucia dwarf rush	Monocots	PMJUN013J0	37	2	None	None	G3	S3	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral, Great Basin scrub, Lower montane coniferous forest, Meadow & seep, Vernal pool, Wetland
Lanius ludovicianus	loggerhead shrike	Birds	ABPBR01030	110	2	None	None	G4	S4	null	CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Broadleaved upland forest, Desert wash, Joshua tree woodland, Mojavean desert scrub, Pinon & juniper woodlands, Riparian woodland, Sonoran desert scrub
Lasiurus xanthinus	western yellow bat	Mammals	AMACC05070	58	2	None	None	G4G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Desert wash
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Dicots	PDAST5L0A1	111	7	None	None	G4T2	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Alkali playa, Marsh & swamp, Salt marsh, Vernal pool, Wetland
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Dicots	PDBRA1M114	142	2	None	None	G5T3	S3	4.3	null	Chaparral, Coastal scrub
Lepus californicus bennettii	San Diego black-tailed	Mammals	AMAEB03051	103	16	None	None	G5T3T4	S3S4	null	null	Coastal scrub

	~~jackrabbit~~											
Lilium parryi	lemon lily	Monocots	PMLIL1A0J0	160	1	None	None	G3	S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Lower montane coniferous forest, Meadow & seep, Riparian forest, Upper montane coniferous forest, Wetland
Limnanthes alba ssp. parishii	Parish's meadowfoam	Dicots	PDLIM02052	33	1	None	Endangered	G4T2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture, USFS_S-Sensitive	Lower montane coniferous forest, Meadow & seep, Vernal pool, Wetland
Linderiella occidentalis	California linderiella	Crustaceans	ICBRA06010	508	2	None	None	G2G3	S2S3	null	IUCN_NT-Near Threatened	Vernal pool
Linderiella santarosae	Santa Rosa Plateau fairy shrimp	Crustaceans	ICBRA06020	2	2	None	None	G1G2	S1	null	null	Vernal pool
Monardella hypoleuca ssp. intermedia	intermediate monardella	Dicots	PDLAM180A4	38	1	None	None	G4T2?	S2?	1B.3	null	Chaparral, Cismontane woodland, Lower montane coniferous forest
Myosurus minimus ssp. apus	little mousetail	Dicots	PDRAN0H031	24	3	None	None	G5T2Q	S2	3.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Valley & foothill grassland, Vernal pool, Wetland
Navarretia fossalis	spreading navarretia	Dicots	PDPLM0C080	82	11	Threatened	None	G2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Alkali playa, Chenopod scrub, Marsh & swamp, Vernal pool, Wetland
Navarretia prostrata	prostrate vernal pool navarretia	Dicots	PDPLM0C0Q0	61	3	None	None	G2	S2	1B.2	null	Coastal scrub, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Onychomys torridus ramona	southern grasshopper mouse	Mammals	AMAFF06022	28	1	None	None	G5T3	S3	null	CDFW_SSC-Species of Special Concern	Chenopod scrub
Orcuttia californica	California Orcutt grass	Monocots	PMPOA4G010	39	9	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Vernal pool, Wetland
Perognathus longimembris brevinasus	Los Angeles pocket mouse	Mammals	AMAFD01041	70	2	None	None	G5T2	S1S2	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Phrynosoma blainvillii	coast horned lizard	Reptiles	ARACF12100	784	21	None	None	G4	S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland
Plegadis chihi	white-faced ibis	Birds	ABNGE02020	20	1	None	None	G5	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Marsh & swamp, Wetland
Polioptila californica californica	coastal California gnatcatcher	Birds	ABPBJ08081	1087	55	Threatened	None	G4G5T3Q	S2	null	CDFW_SSC-Species of Special Concern	Coastal bluff scrub, Coastal scrub
Pseudognaphalium leucocephalum	white rabbit-tobacco	Dicots	PDAST440C0	62	1	None	None	G4	S2	2B.2	null	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland
Rana draytonii	California red-legged frog	Amphibians	AAABH01022	1692	1	Threatened	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater

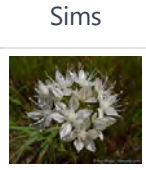
												marsh, Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Salvadora hexalepis virgultea	coast patch-nosed snake	Reptiles	ARADB30033	34	1	None	None	G5T4	S3	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	Dicots	PDLAM1U0A1	43	1	None	None	G4T3	S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Cismontane woodland, Lower montane coniferous forest
Sibaropsis hammittii	Hammitt's clay-cress	Dicots	PDBRA32010	7	2	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Valley & foothill grassland
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	Riparian	CTT61310CA	246	5	None	None	G4	S4	null	null	Riparian forest
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	Riparian	CTT61330CA	111	6	None	None	G3	S3.2	null	null	Riparian forest
Southern Interior Basalt Flow Vernal Pool	Southern Interior Basalt Flow Vernal Pool	Herbaceous	CTT44310CA	9	9	None	None	G1	S1.2	null	null	Vernal pool, Wetland
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	Riparian	CTT62400CA	230	8	None	None	G4	S4	null	null	Riparian woodland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1444	41	None	None	G2G3	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Sphaerocarpos drewiae	bottle liverwort	Bryophytes	NBHEP35030	23	3	None	None	G1	S1	1B.1	IUCN_EN-Endangered	Chaparral, Coastal scrub
Streptocephalus woottoni	Riverside fairy shrimp	Crustaceans	ICBRA07010	83	11	Endangered	None	G1G2	S2	null	IUCN_EN-Endangered	Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Symphyotrichum defoliatum	San Bernardino aster	Dicots	PDASTE80C0	102	2	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Taricha torosa	Coast Range newt	Amphibians	AAAAF02032	88	3	None	None	G4	S4	null	CDFW_SSC-Species of Special Concern	null
Thamnophis hammondii	two-striped gartersnake	Reptiles	ARADB36160	184	1	None	None	G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Marsh & swamp, Riparian scrub, Riparian woodland, Wetland
Valley Needlegrass Grassland	Valley Needlegrass Grassland	Herbaceous	CTT42110CA	45	1	None	None	G3	S3.1	null	null	Valley & foothill grassland
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	505	21	Endangered	Endangered	G5T2	S3	null	null	Riparian forest, Riparian scrub, Riparian woodland

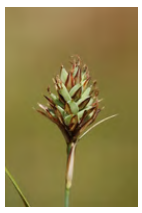
CNPS Rare Plant Inventory

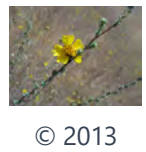
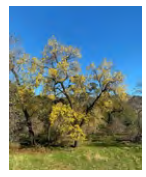
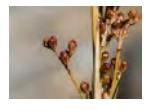
Search Results

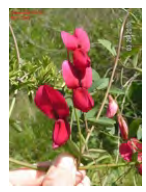
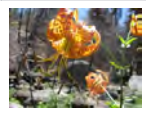
56 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3311753:3311762:3311752:3311763**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Abronia villosa var. *aurita*	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	None	None	G5T2?	S2	1B.1		2001-01-01	 © 2011 Aaron E. Sims
Allium marvinii	Yucaipa onion	Alliaceae	perennial bulbiferous herb	Apr-May	None	None	G1	S1	1B.2	Yes	2001-01-01	 © 2013 Keir Morse
Allium munzii	Munz's onion	Alliaceae	perennial bulbiferous herb	Mar-May	FE	CT	G1	S1	1B.1	Yes	1980-01-01	 © 2003 Guy Bruyea
Almutaster pauciflorus	alkali marsh aster	Asteraceae	perennial herb	Jun-Oct	None	None	G4	S1S2	2B.2		2017-03-14	 © 2014 Richard Spellenberg
Ambrosia pumila	San Diego ambrosia	Asteraceae	perennial rhizomatous herb	Apr-Oct	FE	None	G1	S1	1B.1		1974-01-01	 © 2010 Benjamin Smith
Amsinckia douglasiana	Douglas' fiddleneck	Boraginaceae	annual herb	Mar-May	None	None	G4	S4	4.2	Yes	2007-08-20	 © 2013 Chris Winchell
Arctostaphylos rainbowensis	Rainbow manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	None	None	G2	S2	1B.1	Yes	1994-01-01	No Photo Available
Atriplex coronata var. *notatior*	San Jacinto Valley crownscale	Chenopodiaceae	annual herb	Apr-Aug	FE	None	G4T1	S1	1B.1	Yes	1988-01-01	 © 2008 Larry Sward
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	None	None	G1G2	S1	1B.1		1988-01-01	No Photo Available

Ayenia compacta	California ayenia	Malvaceae	perennial herb	Mar-Apr	None	None	G4	S3	2B.3		1974-01-01	No Photo Available
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	FT	CE	G2	S2	1B.1	Yes	1974-01-01	 © 2016 Keir Morse
Brodiaea santarosae	Santa Rosa Basalt brodiaea	Themidaceae	perennial bulbiferous herb	May-Jun	None	None	G1	S1	1B.2	Yes	2008-02-05	 © 2021 W. Juergen Schrenk
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	None	None	G3G4	S3S4	4.2	Yes	1974-01-01	No Photo Available
Calochortus weedii var. *intermedius*	intermediate mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G3G4T3	S3	1B.2	Yes	1994-01-01	No Photo Available
Carex buxbaumii	Buxbaum's sedge	Cyperaceae	perennial rhizomatous herb	Mar-Aug	None	None	G5	S3	4.2		2001-01-01	 © 2008 Dean Wm. Taylor, Ph.D.
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb	(Feb)Mar-May(Jun)	None	None	G4	S4	4.2	Yes	1974-01-01	No Photo Available
Centromadia pungens ssp. *laevis*	smooth tarplant	Asteraceae	annual herb	Apr-Sep	None	None	G3G4T2	S2	1B.1	Yes	1994-01-01	No Photo Available
Chorizanthe leptotheca	Peninsular spineflower	Polygonaceae	annual herb	May-Aug	None	None	G3	S3	4.2		1994-01-01	No Photo Available
Chorizanthe parryi var. *parryi*	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	None	None	G3T2	S2	1B.1	Yes	1994-01-01	 © 2012 Keir Morse
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul	None	None	G5T3	S3	1B.2		1994-01-01	No Photo Available
Clinopodium chandleri	San Miguel savory	Lamiaceae	perennial shrub	Mar-Jul	None	None	G2G3	S2	1B.2		1974-01-01	No Photo Available
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2		1994-01-01	No Photo Available

Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov	None	None	G4	S4	4.2		2001-01-01	No Photo Available
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	FE	CE	G1	S1	1B.1	Yes	1980-01-01	No Photo Available
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Eryngium aristulatum var. *parishii*	San Diego button-celery	Apiaceae	annual/perennial herb	Apr-Jun	FE	CE	G5T1	S1	1B.1		1974-01-01	No Photo Available
Erythranthe diffusa	Palomar monkeyflower	Phrymaceae	annual herb	Apr-Jun	None	None	G4	S3	4.3		1974-01-01	 Ron Vanderhoff, 2019
Geothallus tuberosus	Campbell's liverwort	Sphaerocarpaceae	ephemeral liverwort		None	None	G2	S2	1B.1	Yes	2001-01-01	 © 2023 Nathan Taylor
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May	None	None	G4	S3	4.2		1980-01-01	 © 2015 Keir Morse
Hesperocyparis forbesii	Tecate cypress	Cupressaceae	perennial evergreen tree		None	None	G2	S2	1B.1		1974-01-01	 © 2011 Joey Malone
Holocarpha virgata ssp. *elongata*	graceful tarplant	Asteraceae	annual herb	May-Nov	None	None	G5T3	S3	4.2	Yes	1994-01-01	 © 2013 Anna Bennett
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	3.2		1994-01-01	No Photo Available
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None	None	G4	S4	4.2	Yes	1994-01-01	 © 2020 Zoya Akulova
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2		1988-01-01	 © 2019 Belinda Lo

Juncus luciensis	Santa Lucia dwarf rush	Juncaceae	annual herb	Apr-Jul	None	None	G3	S3	1B.2	Yes	2009-04-30	 © 2009 Keir Morse
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1		1994-01-01	 © 2013 Keir Morse
Lathyrus splendens	pride-of-California	Fabaceae	perennial herb	Mar-Jun	None	None	G4	S4	4.3		1974-01-01	 © 2012 Ron Clark
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	None	None	G5T3	S3	4.3		1994-01-01	 © 2015 Keir Morse
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	None	None	G4T4?	S4?	4.2	Yes	1980-01-01	 © 2008 Thomas Stoughton
Lilium parryi	lemon lily	Liliaceae	perennial bulbiferous herb	Jul-Aug	None	None	G3	S3	1B.2		1974-01-01	 © 2009 Thomas Stoughton
Limnanthes alba ssp. *parishii*	Parish's meadowfoam	Limnanthaceae	annual herb	Apr-Jun	None	CE	G4T2	S2	1B.2	Yes	1974-01-01	 © 2005 Christopher L. Christie
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	Asteraceae	annual herb	Mar-May	None	None	G4T4	S4	4.2		2001-01-01	 © 2015 Richard Spellenberg
Monardella hypoleuca ssp. *intermedia*	intermediate monardella	Lamiaceae	perennial rhizomatous herb	Apr-Sep	None	None	G4T2?	S2?	1B.3	Yes	2012-10-16	 © 2016 Ron Vanderhoff
Myosurus minimus ssp. *apus*	little mousetail	Ranunculaceae	annual herb	Mar-Jun	None	None	G5T2Q	S2	3.1		1980-01-01	No Photo Available
Navarretia fossalis	spreading navarretia	Polemoniaceae	annual herb	Apr-Jun	FT	None	G2	S2	1B.1		1980-01-01	No Photo Available

Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	2001-01-01	No Photo Available
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	FE	CE	G1	S1	1B.1		1974-01-01	No Photo Available
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	None	None	G4	S2	2B.2		2006-11-03	No Photo Available
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	Mar-Jun	None	None	G3	S3	4.2		1988-01-01	No Photo Available
Rhinotropis cornuta var. *fishiae*	Fish's milkwort	Polygalaceae	perennial deciduous shrub	May-Aug	None	None	G5T4	S4	4.3		1974-01-01	No Photo Available
Romneya coulteri	Coulter's matilija poppy	Papaveraceae	perennial rhizomatous herb	Mar-Jul(Aug)	None	None	G4	S4	4.2		1974-01-01	No Photo Available
Scutellaria bolanderi ssp. *austromontana*	southern mountains skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Aug	None	None	G4T3	S3	1B.2	Yes	1994-01-01	No Photo Available
Sibaropsis hammittii	Hammitt's clay-cress	Brassicaceae	annual herb	Mar-Apr	None	None	G2	S2	1B.2	Yes	2001-01-01	No Photo Available
Sphaerocarpos drewiae	bottle liverwort	Sphaerocarpaceae	ephemeral liverwort		None	None	G1	S1	1B.1	Yes	2001-01-01	No Photo Available
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov	None	None	G2	S2	1B.2	Yes	2004-01-01	No Photo Available
Viguiera laciniata	San Diego County viguiera	Asteraceae	perennial shrub	Feb-Jun(Aug)	None	None	G4	S4	4.3		1974-01-01	No Photo Available

Showing 1 to 56 of 56 entries

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