VCS Environmental
EXPERTS IN STRATEGIC SOLUTIONS

Memorandum

Date: September 18, 2023

To: Katrina Reher, California Department of Fish and Wildlife
Carly Beck, California Department of Fish and Wildlife
Jim Thiede, United States Fish and Wildlife Service

From: Wade Caffery, VCS Environmental

Subject: Addendum to the Determination of Biologically Equivalent or Superior Preservation (DBESP) for the Menifee Valley Project (Additional Offsite Areas and Additional Jurisdictional Feature)

On behalf of Minor Ranch LLC, VCS Environmental (VCS) has prepared this memorandum to serve as an Addendum to the February 13, 2023 Determination of Biologically Equivalent or Superior Preservation (DBESP) prepared by Rocks Biological Consulting that addressed the original 626.78-acre site and the additional offsite infrastructure improvements (Initial Project Site, Appendix B). This DBESP Addendum addresses potential impacts on Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) riparian/riverine areas pursuant to Sections 6.1.2 and 6.3.2 of the MSHCP (Western Riverside County Regional Conservation Authority [WRC RCA] 2003. The February 13, 2023 DBESP included offsite infrastructure improvements; however, it's important to note that this DBESP Addendum includes new additional offsite infrastructure improvements added following the field visit with the Wildlife Agencies on May 31, 2023 (84.23 acres, Project Site, Figure 2, *Aerial Map*) as well as the additional drainage on the southern portion of the Initial Project Site confirmed by the Wildlife Agencies during the field visit (Figure 12, *MSHCP Riparian/Riverine*). This DBESP is a component of a larger set of biological studies for the Menifee Valley Project, with previous reports also having been prepared for the other components of the Project (Rocks Biological Consulting 2022). The findings from the Initial Project Site DBESP are unchanged, except for the additional drainage noted above, therefore, no changes to those previous reports were prepared.

Overview and MSHCP Setting

The 84.23-acre Project Site of additional offsite areas is located in the City of Menifee, Riverside County, California (Figure 1, *Regional Map*). The Project Site is largely dominated by disturbed fields which contain non-native weeds and grasses, developed lands with ornamental trees, and some small areas of native vegetation communities. Of the 84.23 acres of the Project Site, 41.76 acres will be impacted. No avoidance alternatives have been prepared as ecological disturbance from construction is minimal (i.e. impacts to jurisdictional waters take up a small acreage and take place in primarily low quality, disturbed/developed habitat along active roads where it does have a large negative effect on functions and values of the habitat) and the roadway improvements are necessary to support the development on the Initial Project Site.

The Project Site is not located within or adjacent to existing or proposed MSHCP criteria cells, cell groups, or public quasi-public conserved lands (Figure 11; *MSHCP Map*). McCall Boulevard is surrounded by residential developments as well as disturbed fields. Menifee Valley Medical Center exists to the north of the Project Site, and to the east of the hospital, there is a granitic hill which is dominated by native vegetation communities. Matthews Road is largely surrounded by warehouses and is proximal to the BP John Recycling Center.

The Project Site falls under both the MSHCP Burrowing Owl (BUOW) Survey Area, as well as the MSHCP Narrow Endemic Plant Survey Area. Plants covered in this area include Munz's 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*). No listed plants were found during the June and July biological surveys. A registered plant biologist assisted in this assessment. The Project Site is not part of the following MSHCP survey areas: Mammal Species Survey Areas, Amphibian Species Survey Areas, or Criteria Area Species Survey Areas (CASSA) for plant species. There is no suitable habitat on the Project Site for the Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*). There is also no suitable habitat for fairy shrimp (*Branchinecta lindahli*) due to the absence of vernal pools and adequate hydrological resources (i.e. depressions or road ruts) for the species.

A burrowing owl habitat assessment and focused burrowing owl surveys were performed by VCS biologists Wade Caffrey, Stephanie Fan, Ian Slack, and Jose Gonzalez throughout June and July 2023. Literature review of pertinent databases such as CNDDB was conducted prior to the 2023 burrowing owl habitat assessment of the Project Site. During the habitat assessment, suitable habitat was identified due to the presence of suitable burrows as well as a few areas of rock piles (Burrowing Owl Survey Instructions; WRC RCA 2006). The first BUOW focused survey (Step 1, Step 2/Part A, and the first survey of Step 2/Part B) was performed during the general biological survey on June 23, 2023 by VCS biologists Wade Caffrey, Stephanie Fan, and Ian Slack to assess whether potentially suitable habitat for BUOW, suitable burrows, or BUOW were present within the initial Project boundary and a 500-foot buffer (Figure 6, *Burrowing Owl Map*). Suitable habitat was observed, and three additional focused surveys were then performed on June 28, July 6, and July 12, 2023 (the remainder of Step 2/Part B). Aside from the suitable burrows, no owls or signs thereof were seen during any of the surveys.

Riparian/Riverine Areas Initial Project Site

During the May 31, 2023 field visit with the Wildlife Agencies to verify the drainages mapped in the Wildlife Agency comment letter dated January 17, 2023, it was determined that only one additional area, Feature 5, beyond what was mapped in the February 13, 2023 DBESP was a riparian/riverine area subject to the MSHCP. The 0.17-acre disturbed ephemeral streambed has been mapped within the Initial Project Site as part of this DBESP Addendum (Figure 12, *MSHCP Riparian/Riverine*). This feature is near the southern border of the Initial Project Site and the entirety of the disturbed feature will be impacted due to implementation of the Project (Figure 12, *MSHCP Riparian/Riverine*). Vegetation in the area of this features consists of only disturbed habitat due to the farming that takes place.

Riparian/Riverine Areas Project Site

Section 6.1.2 of the MSHCP defines riparian/riverine areas as, “lands that contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to, or which depend upon soil moisture from a nearby fresh water source; or areas with freshwater flow during all or a portion of the year” (WRC RCA 2003). Note that areas that were artificially created are not included in this

definition unless they are wetlands "created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses" (WRC RCA 2003). VCS surveyed the entirety of the Project Site for wetland features. There were 0.27-acres of disturbed ephemeral streambed mapped within the Project Site (Features 4, 6, 7, 8, and 9), of which 0.08 acres will be impacted. No riparian habitat was present. These features exist within the confines of the Project Site on McCall Boulevard, Mclaughlin Road, and Matthews Road (Figure 8, *Waters of the State Map*).

VCS mapped multiple drainage complexes within the additional offsite areas Project Site (Figure 8, *Waters of the State Map*). Feature 6 is a drainage running parallel to Matthews Road flowing westward. It contains four ephemeral features (labeled A-D) and leads to a culvert towards the northwest on Matthews Road. This complex contains streambed Waters of the State. Feature 4 is a single small ephemeral feature which flows southward and is perpendicular to Matthews Road (labeled B). This complex contains streambed Waters of the State. Feature 7 is a single small ephemeral feature which flows southwards and is perpendicular to Matthews Road. This complex contains streambed Waters of the State. Feature 8 is a single ephemeral feature. It is parallel to McCall Boulevard and flows to the west and ultimately southwest of the Project Site. This complex contains streambed Waters of the State. Feature 9 is a single ephemeral feature. It is parallel to McCall Boulevard and flows to the west. This complex contains streambed Waters of the State. All the drainage features mapped on the Project Site were largely dominated by disturbed and developed land as well as disturbed non-native weeds and grasses.

Although the additional offsite areas of the Project Site contain 0.08 acres of riparian/riverine areas per the definition of the MSHCP (Figure 8, *Waters of the State Map*) and the Initial Project Site contains and additional 0.17 acres of riparian/riverine areas, these areas are riverine, not riparian, and do not provide suitable habitat nor are they suited for listed MSHCP riparian/riverine species such as western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*). No mapped ephemeral features appear to have direct connectivity to major drainages in the area (i.e., Briggs Detention Basin) located east of the Project Site.

Vernal Pools

Section 6.1.2 of the MSHCP defines vernal pools as "seasonal wetlands that occur in depression areas that have wetland indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season, but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetland plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season" (WRC RCA 2003).

During the June and July 2023 surveys of jurisdictional waters within or near the Project Site, no vernal pools were seen. Additionally, no vernal pools were mapped using USFWS National Wetland Inventory (NWI) databases (Figure 9, *NWI Map*). There was no evidence of ponding water, such as visible surface water, cracked soils, or hydric soils, and no features were identified onsite where water might collect and persist, like road ruts or other closed depressions. The soil on the Project Site is primarily classified as a well-draining, sandy loam or silt loam.

DBESP

The project applicant proposes offsetting direct impacts on an additional 0.25 acres of streambed Waters of the State (WOS)/MSHCP riverine features by purchasing an additional 0.38 acres of rehabilitation credits (1.5:1) at the Riverpark Mitigation Bank to satisfy anticipated CDFW 1602 and/or RWQCB mitigation requirements. The 1.5:1 ratio of mitigation was previously approved by the Wildlife Agencies following the field visit. The Riverpark Mitigation Bank's service area is less than 4.0 miles north of the Project Site. The bank and the Project Site are within the same Hydrologic Unit Code (HUC) 8 and 10 watersheds; the bank and a portion of the Project Site are within the same HUC 12 watershed (RBC 2022b). Under the purchase, the disturbances created by the Project's impacts on WOS and MSHCP riverine features should be fully mitigated with the purchasing of credits from the Riverpark Mitigation Bank. Further, through the purchase of 0.38 acres of rehabilitation credits, the project will provide biologically equivalent or superior preservation. Alternatively, the project applicant can also offset the additional 0.25 acres of streambed Waters of the State (WOS)/MSHCP riverine features by purchasing an additional 0.5 acres of preservation credits at Barry Jones/Skunk Hollow or another CDFW-approved mitigation bank within Riverside County at a 2:1 mitigation ratio. This option of mitigation will also provide biologically equivalent or superior preservation. Notification of Streambed Alteration to CDFW from the applicant will further justify the purchasing of credits and mitigation used for the Project Site.

It is possible that indirect impacts to existing riverine/riparian features will occur during construction. As mentioned in Appendix A, a variety of Best Management Practices (BMPs) will be implemented to offset potential indirect impacts to the Project Site.

In total, the Menifee Valley Project would purchase 0.38 acres of rehabilitation credits or 0.5 acres of preservation credits to address impacts from the Initial Project Site and the Project Site.

Appendices

Appendix A: Biological Technical Report and MSHCP Consistency Analysis for the Menifee Valley Project (Additional Offsite Areas)

Appendix B: February 2023, Rocks Biological Consulting Menifee Valley Project DBESP

Figures

Figure 1. Regional Map
Figure 2. Aerial Map
Figure 3. USGS Topographic Map
Figure 4. Exhibit of Offsite RW
Figure 5. CNDDB Occurrences Map
Figure 6. Burrowing Owl Map
Figure 7. Vegetation Map
Figure 8. Waters of the State Map
Figure 9. NWI Map
Figure 10. Soil Map
Figure 11. MSHCP Map
Figure 12: MSHCP Riparian/Riverine

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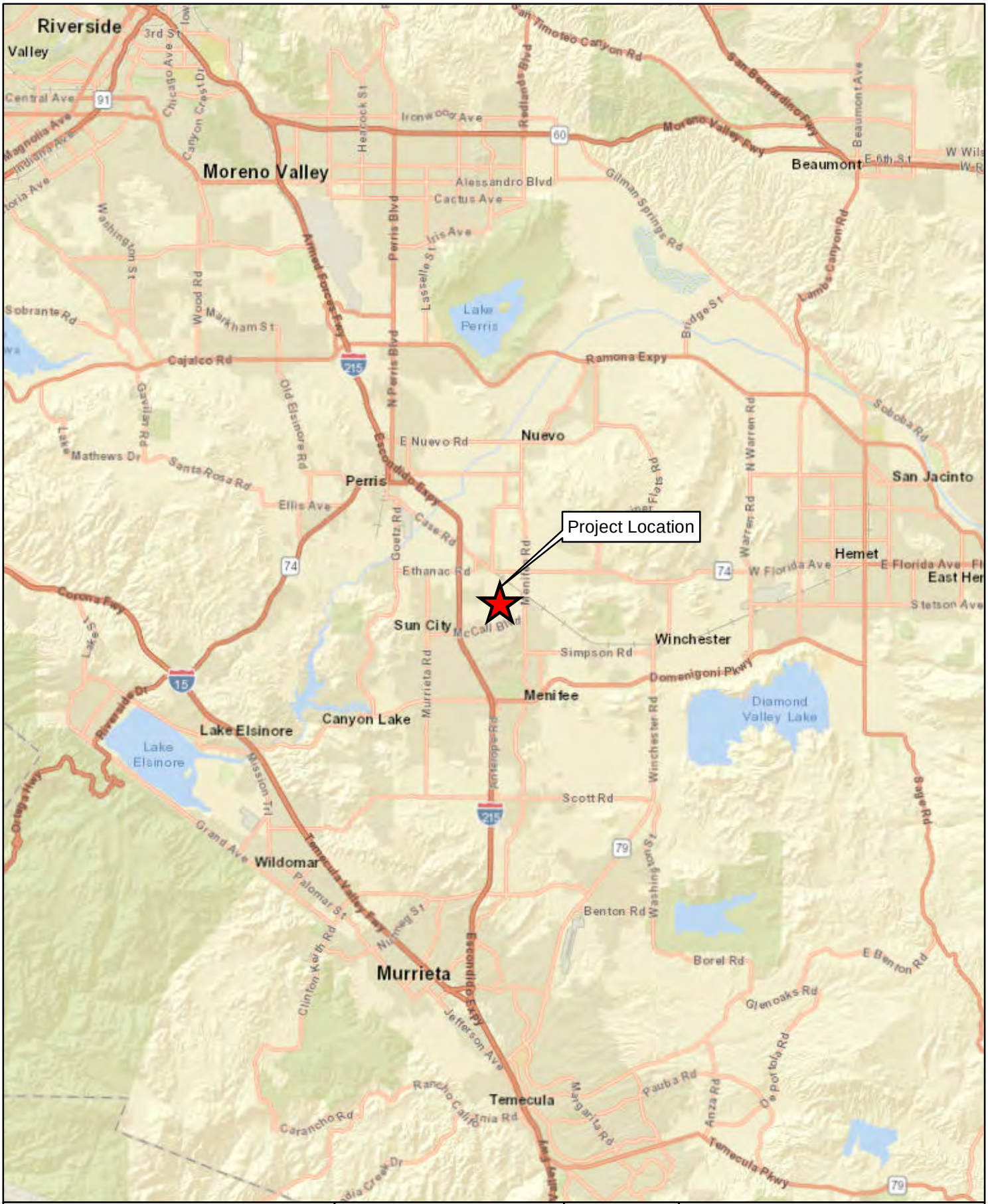
Figures



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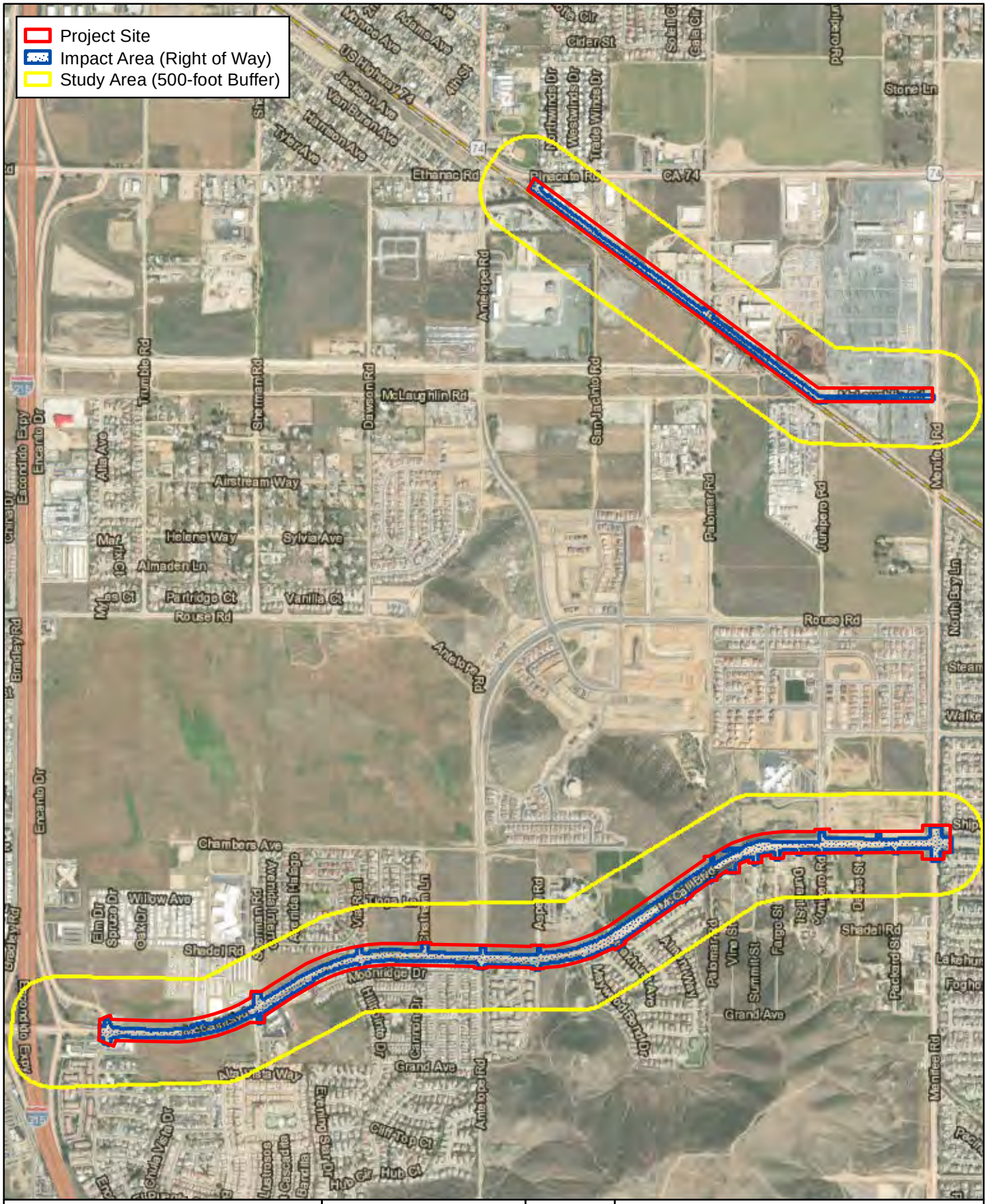
Menifee Valley
Additional Offsite Areas

Figure 1 Regional Map



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Additional Offsite Areas

Figure 2

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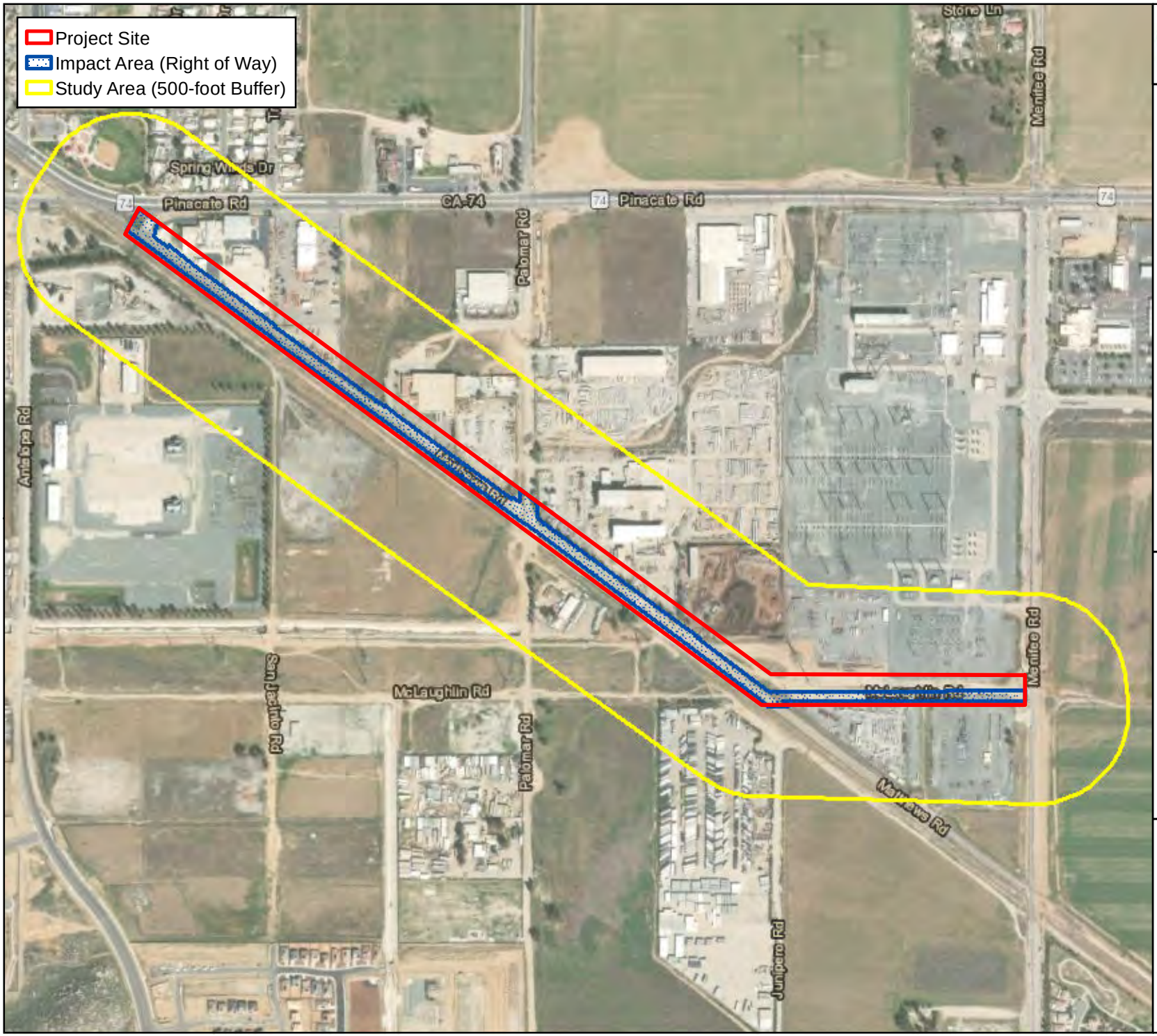

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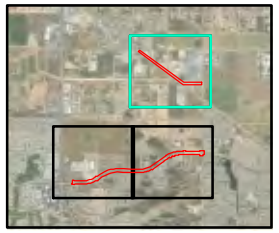
Menifee Valley Additional Offsite Areas



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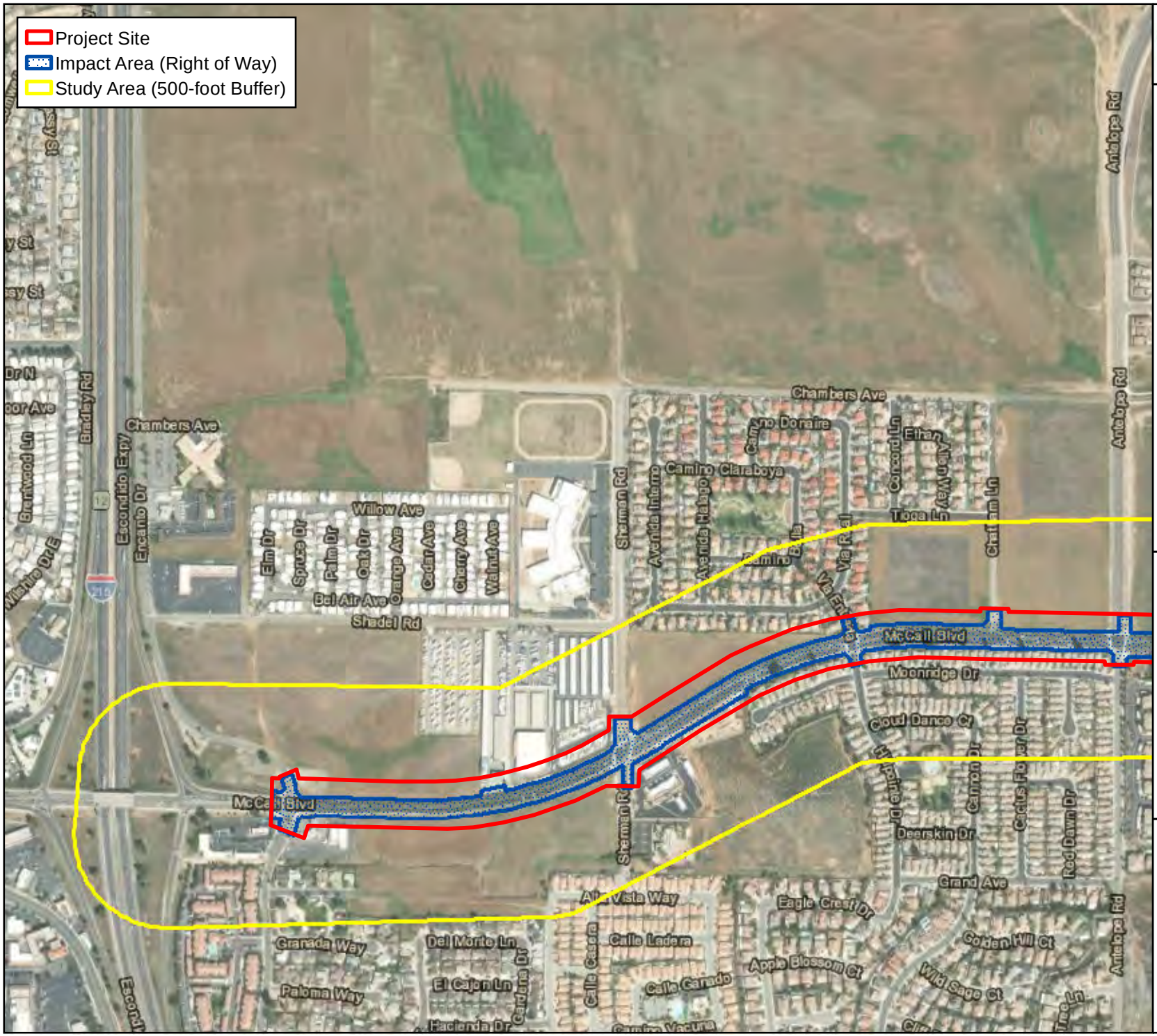

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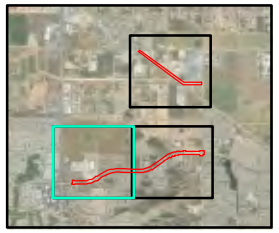
Menifee Valley Additional Offsite Areas



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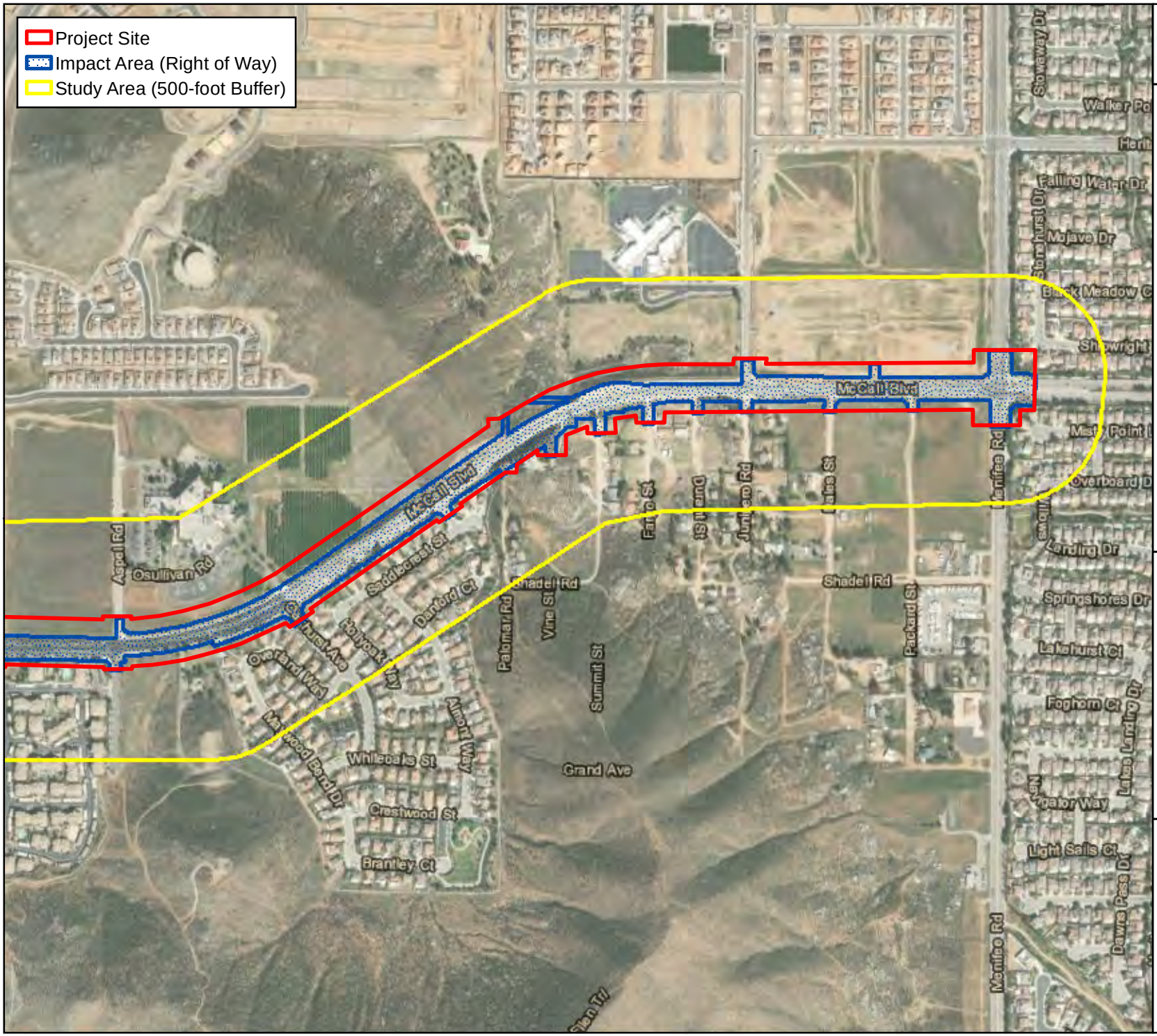

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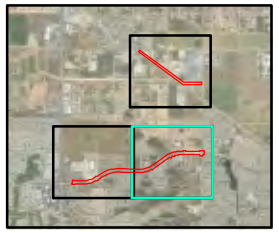

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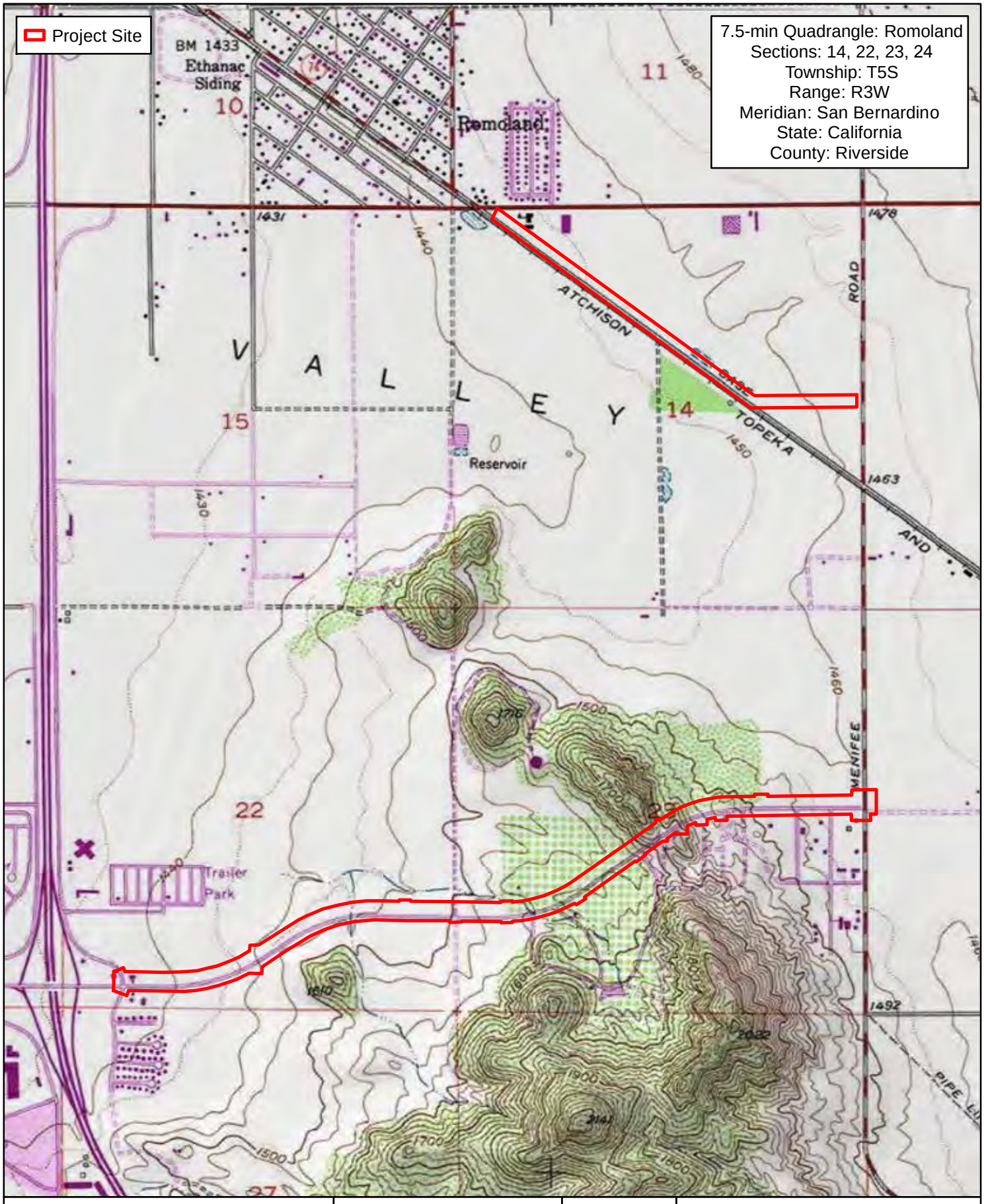

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Map Created: July 2023
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Menifee Valley
Additional Offsite Areas

Figure 3 USGS Topographic Map

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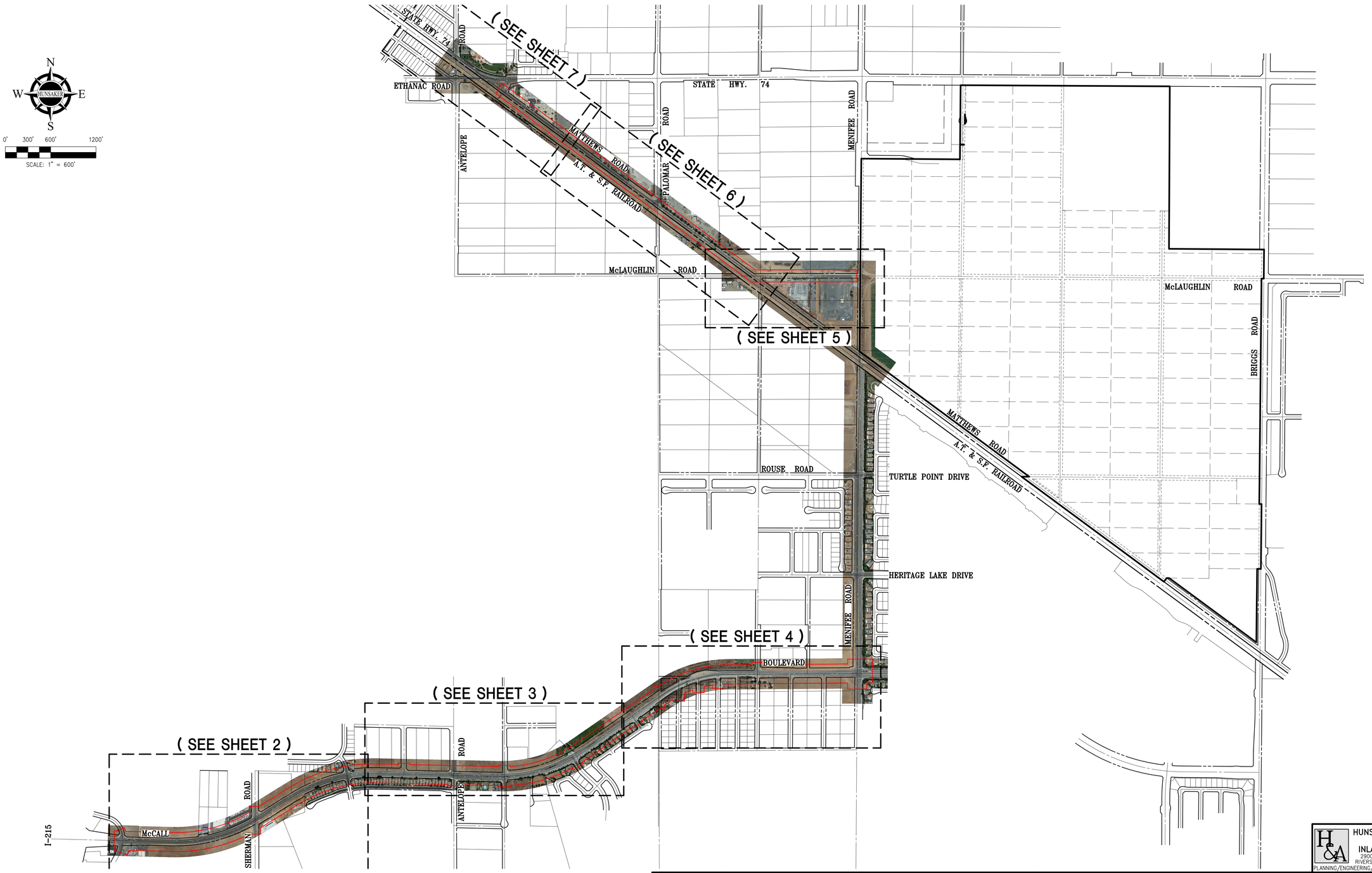

Figure 4

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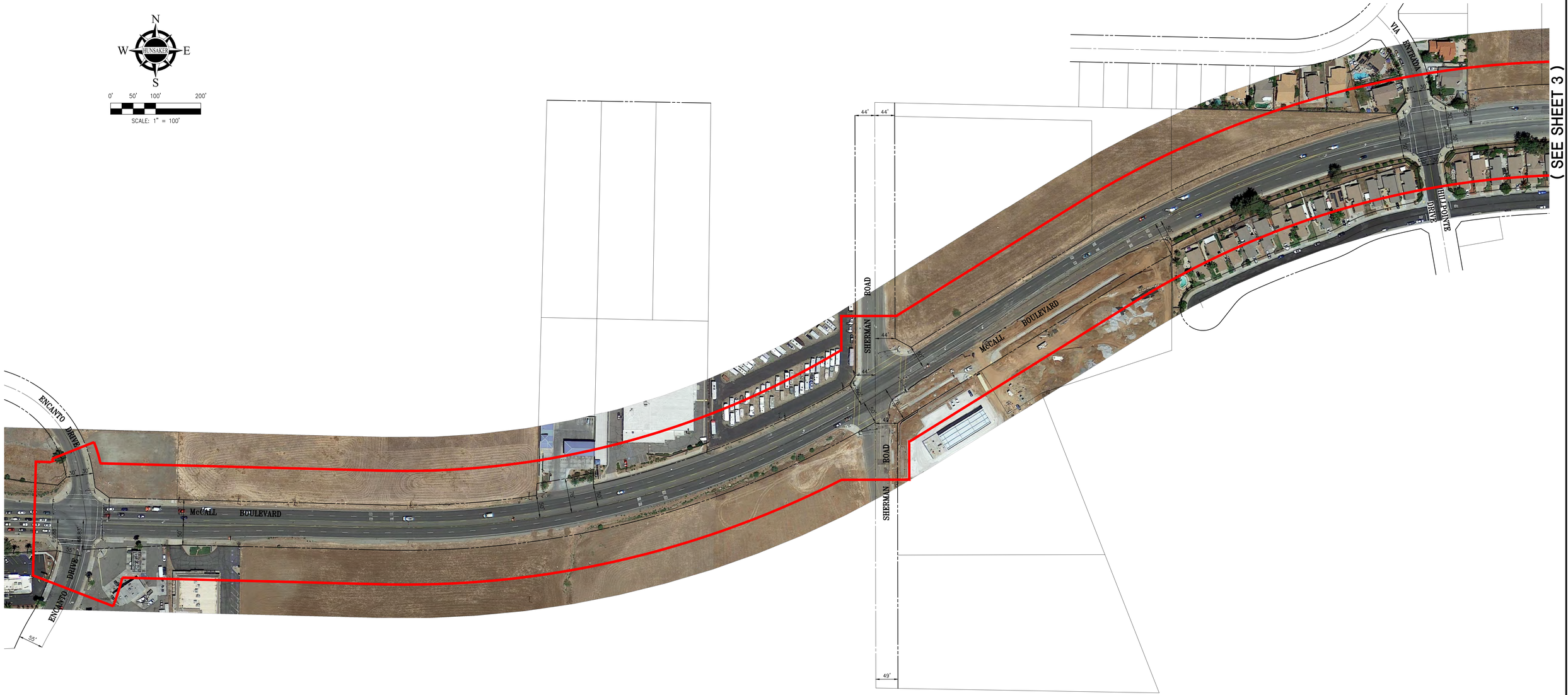

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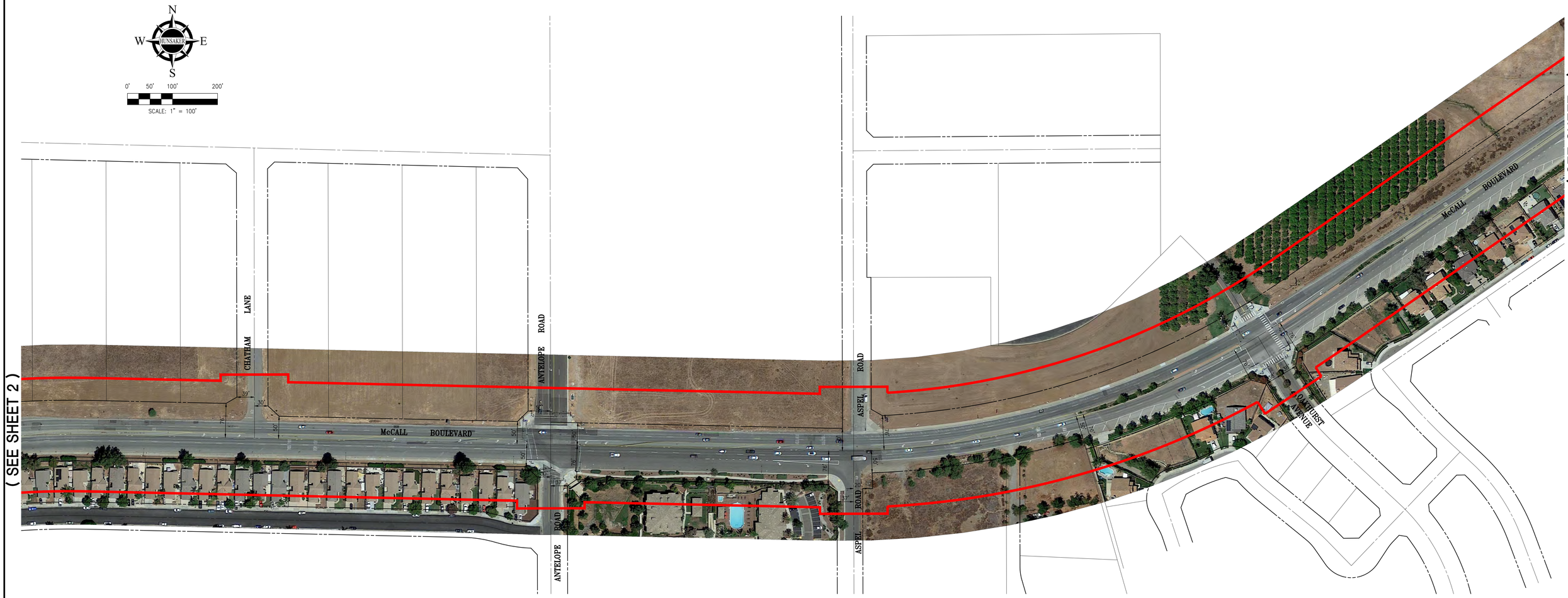

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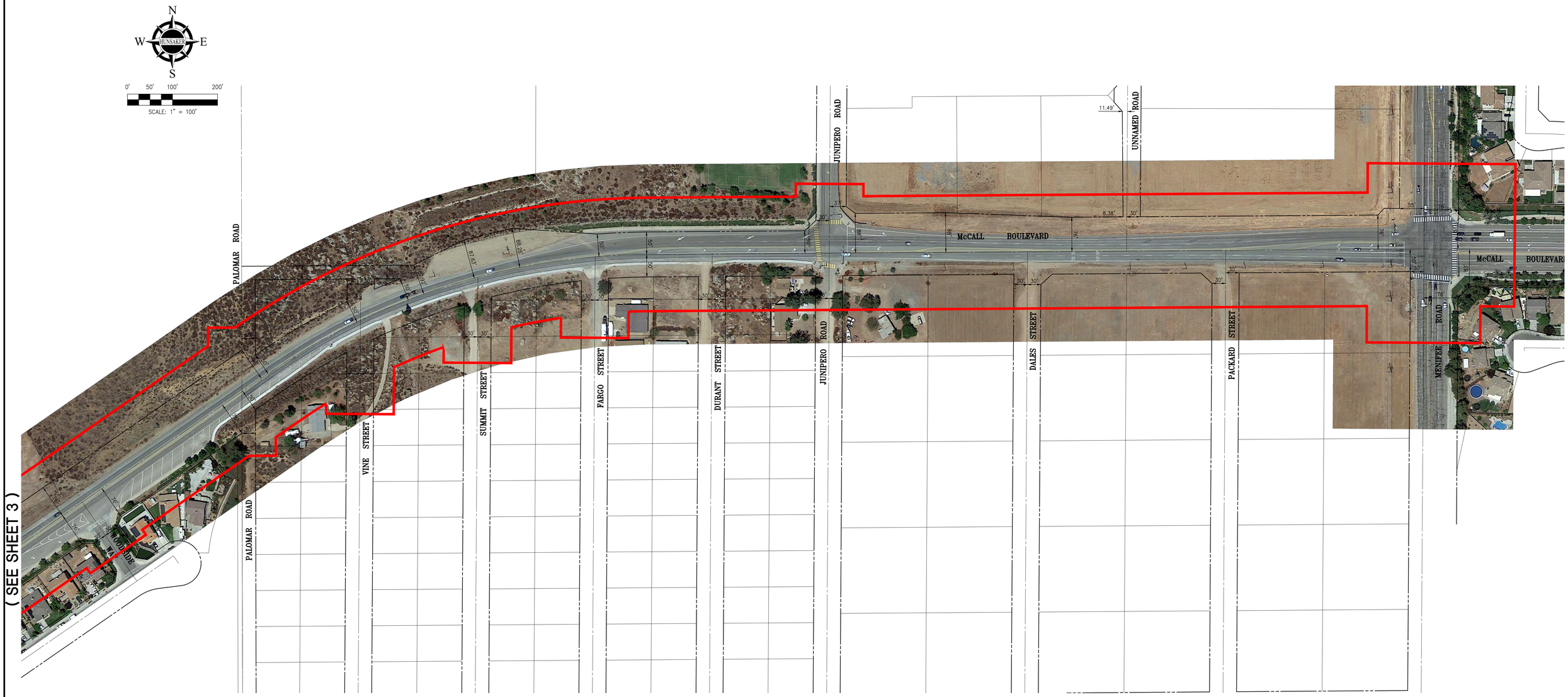

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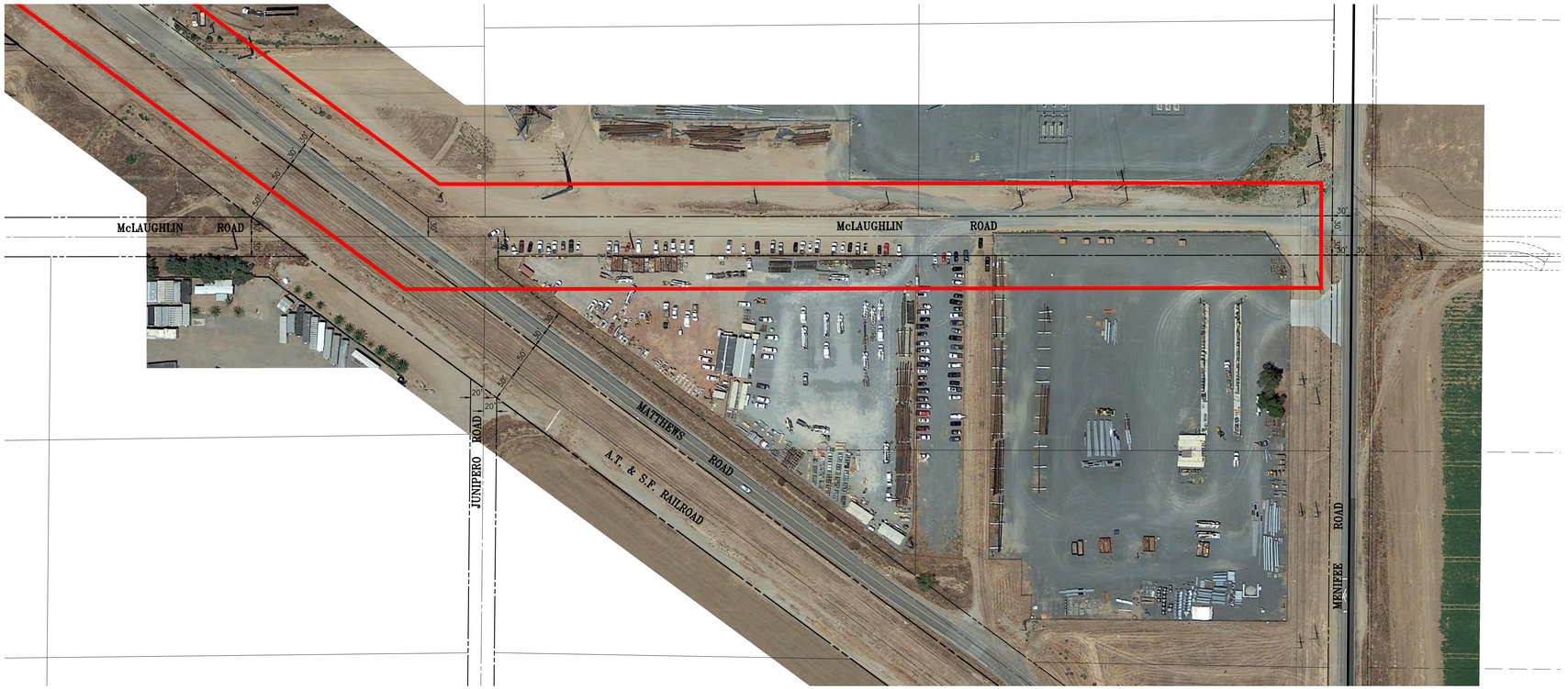

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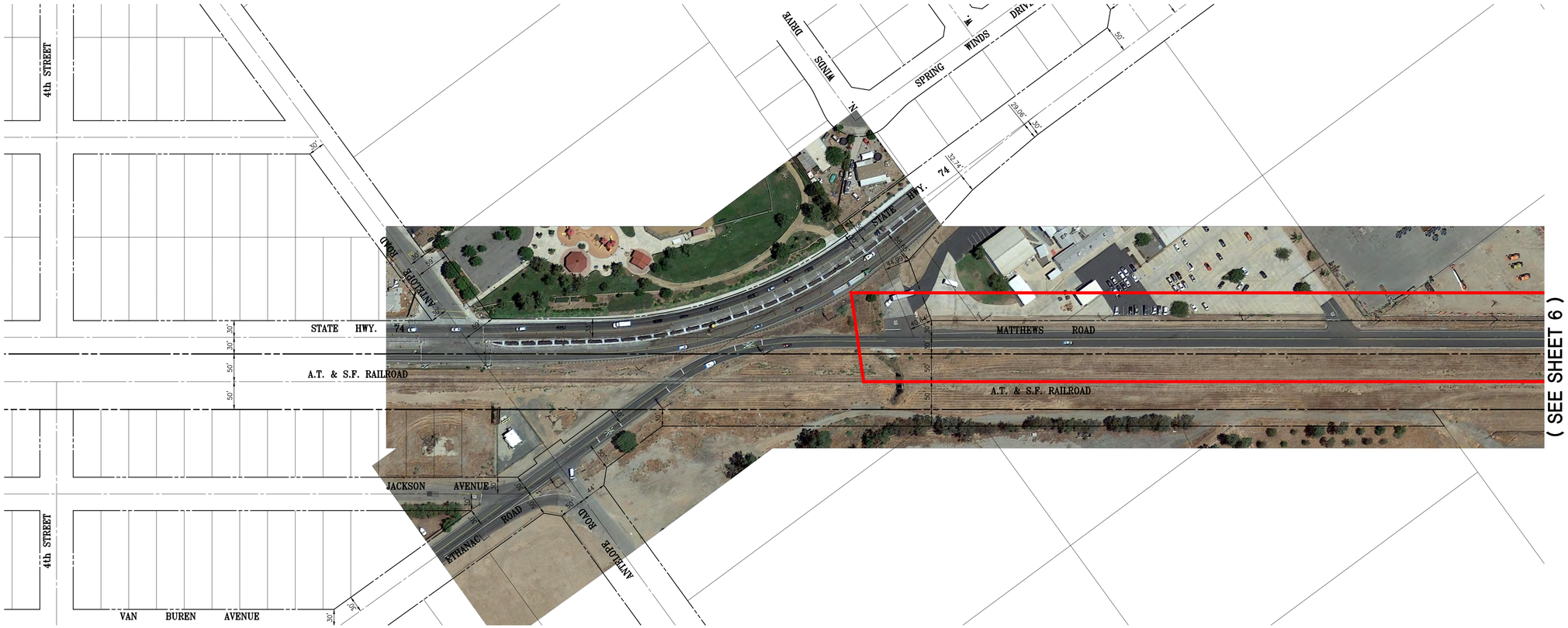

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DATE: 6/15/2023 | PREPARED BY: R.BEUSCHLEIN | PID: 00588 | W.O.: 1873-38303 | SHEET 7 OF 7

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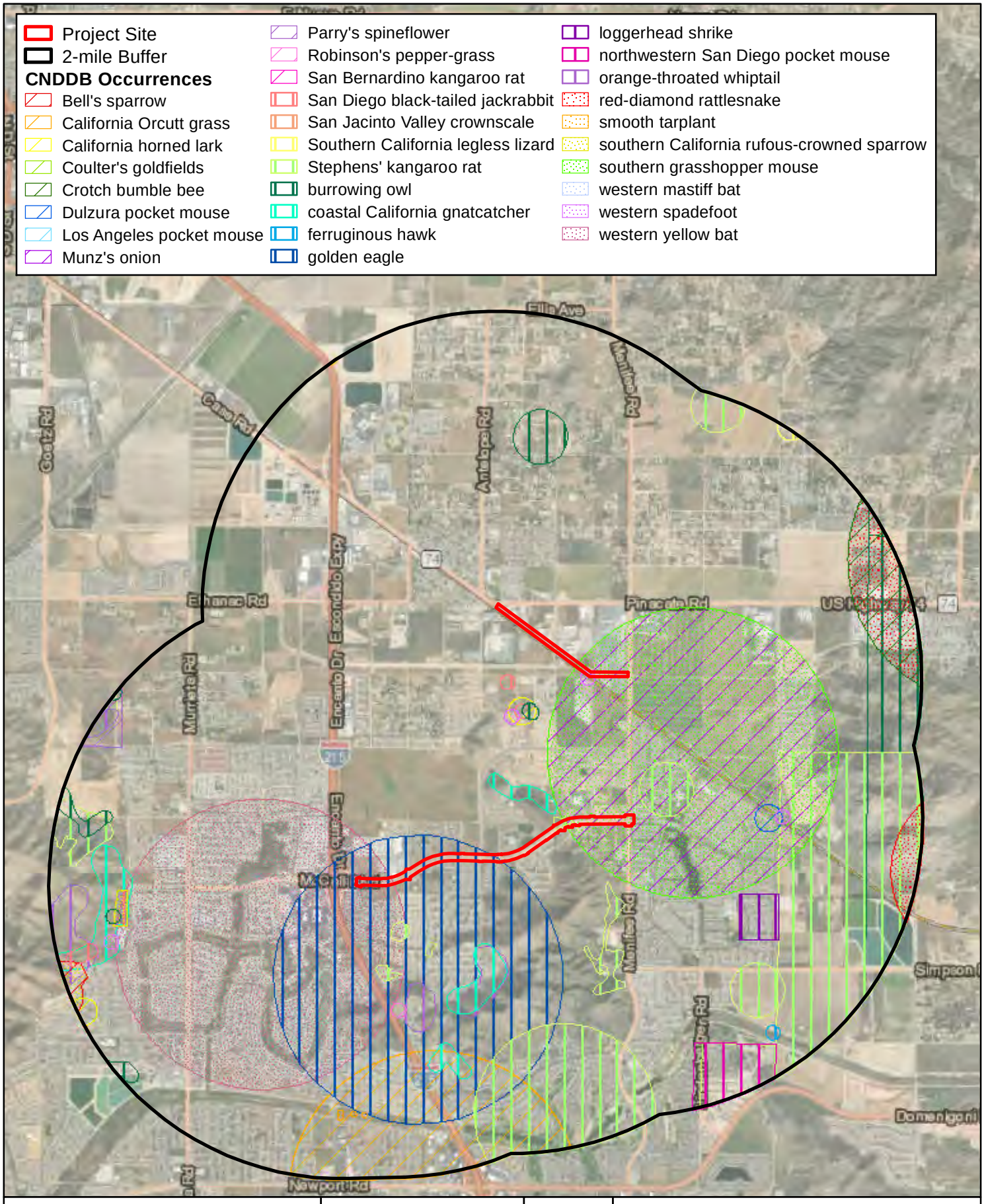

Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, CNDDB

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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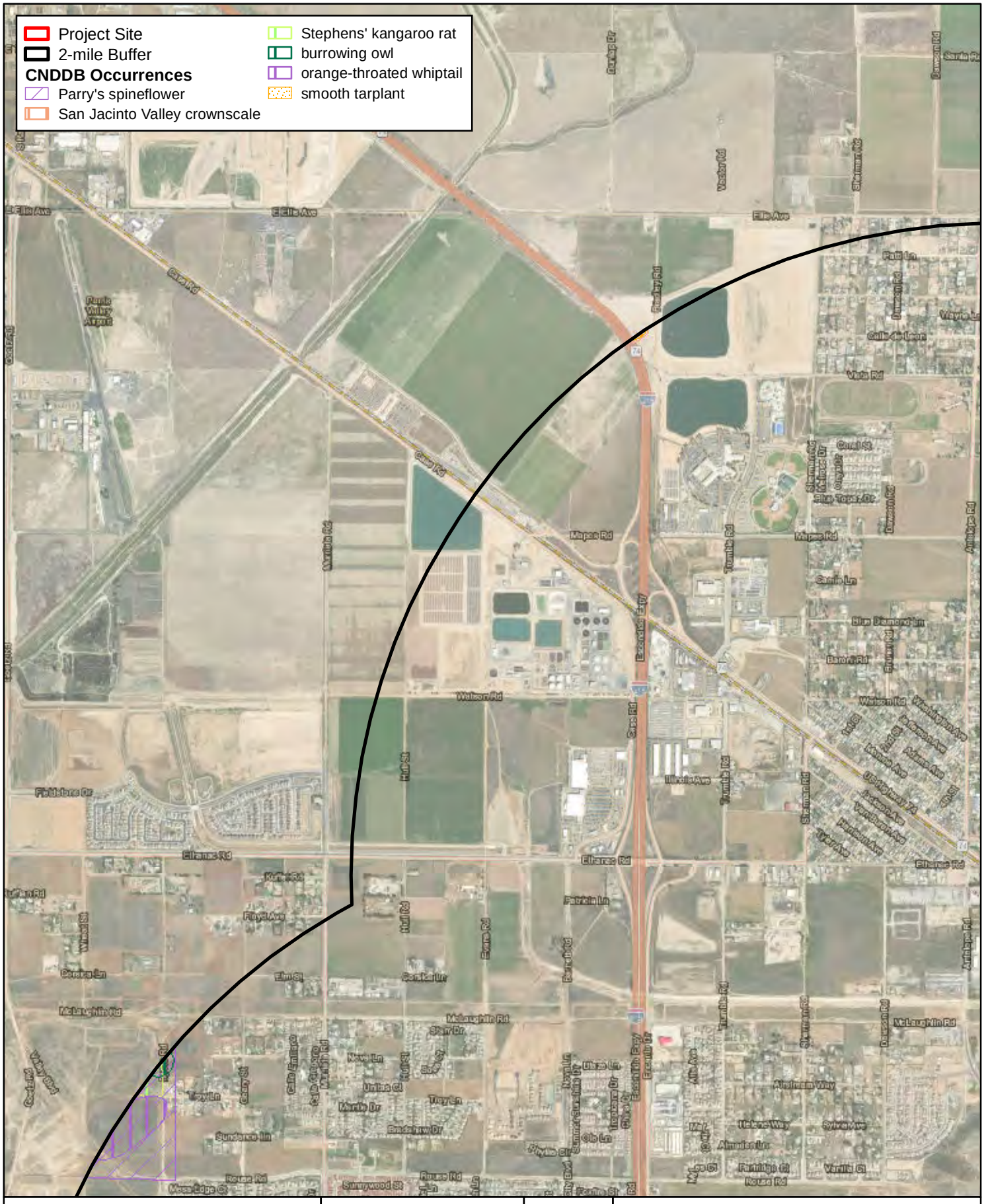
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



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VCS Environmental

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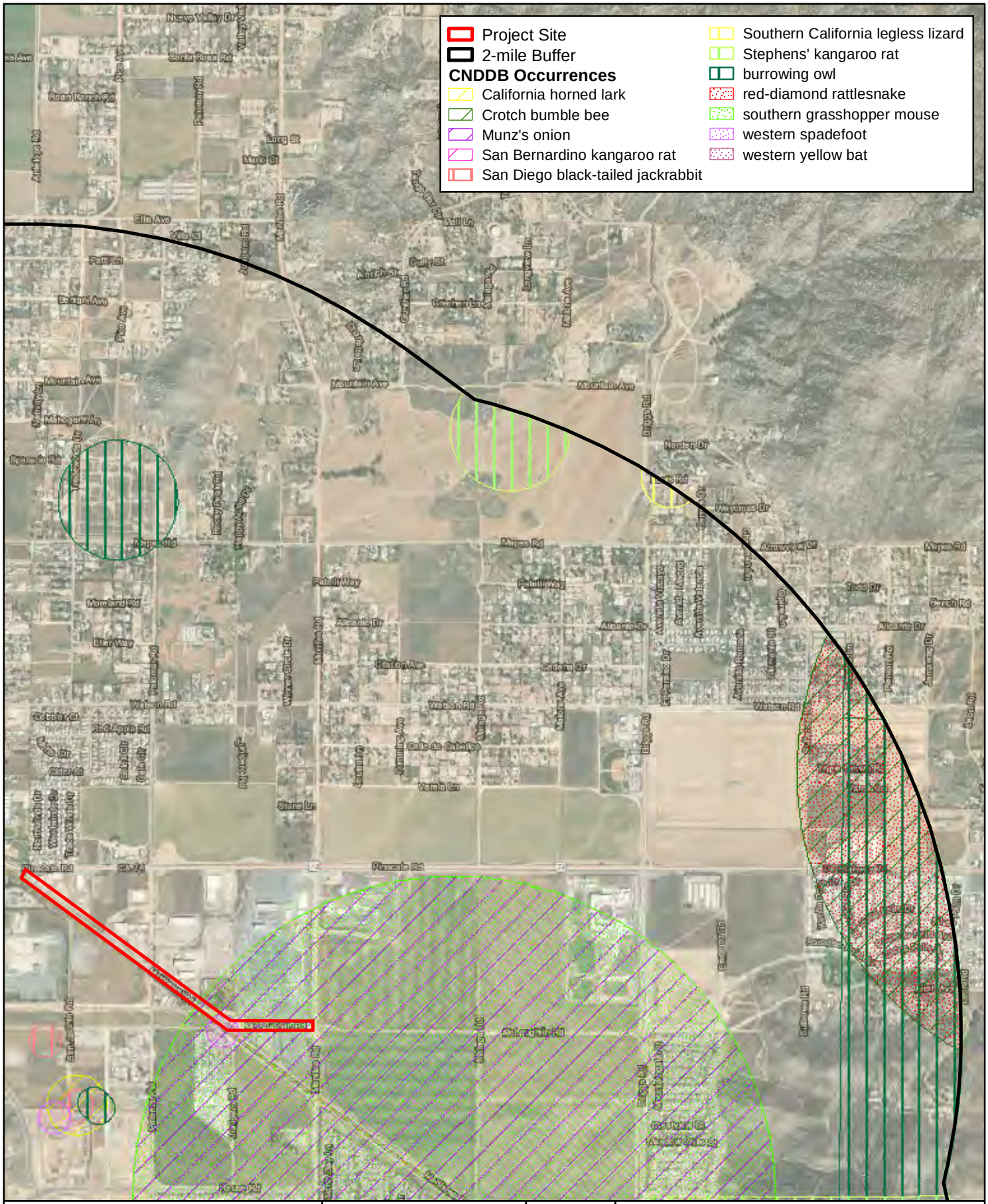
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



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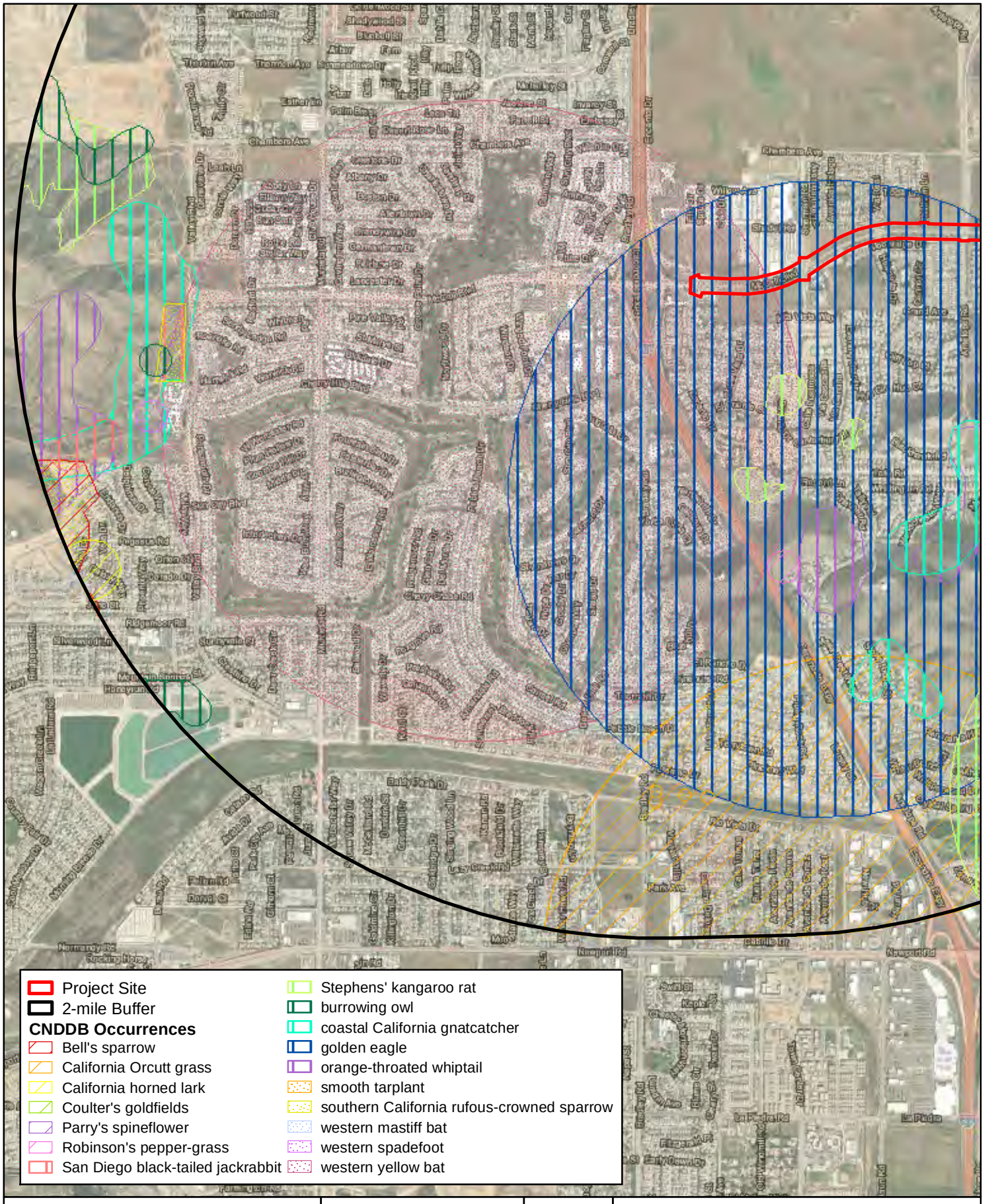
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



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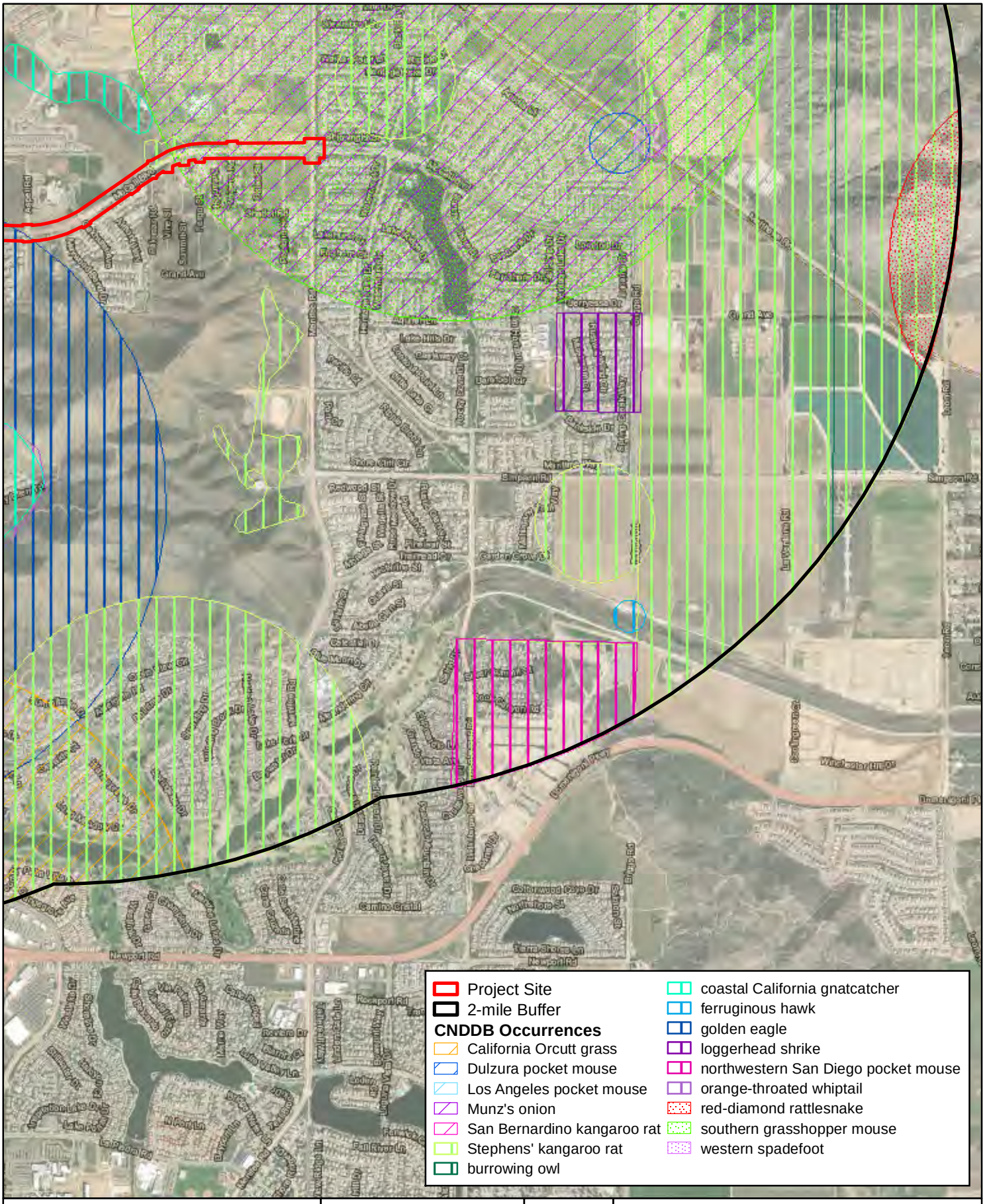
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



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VCS Environmental

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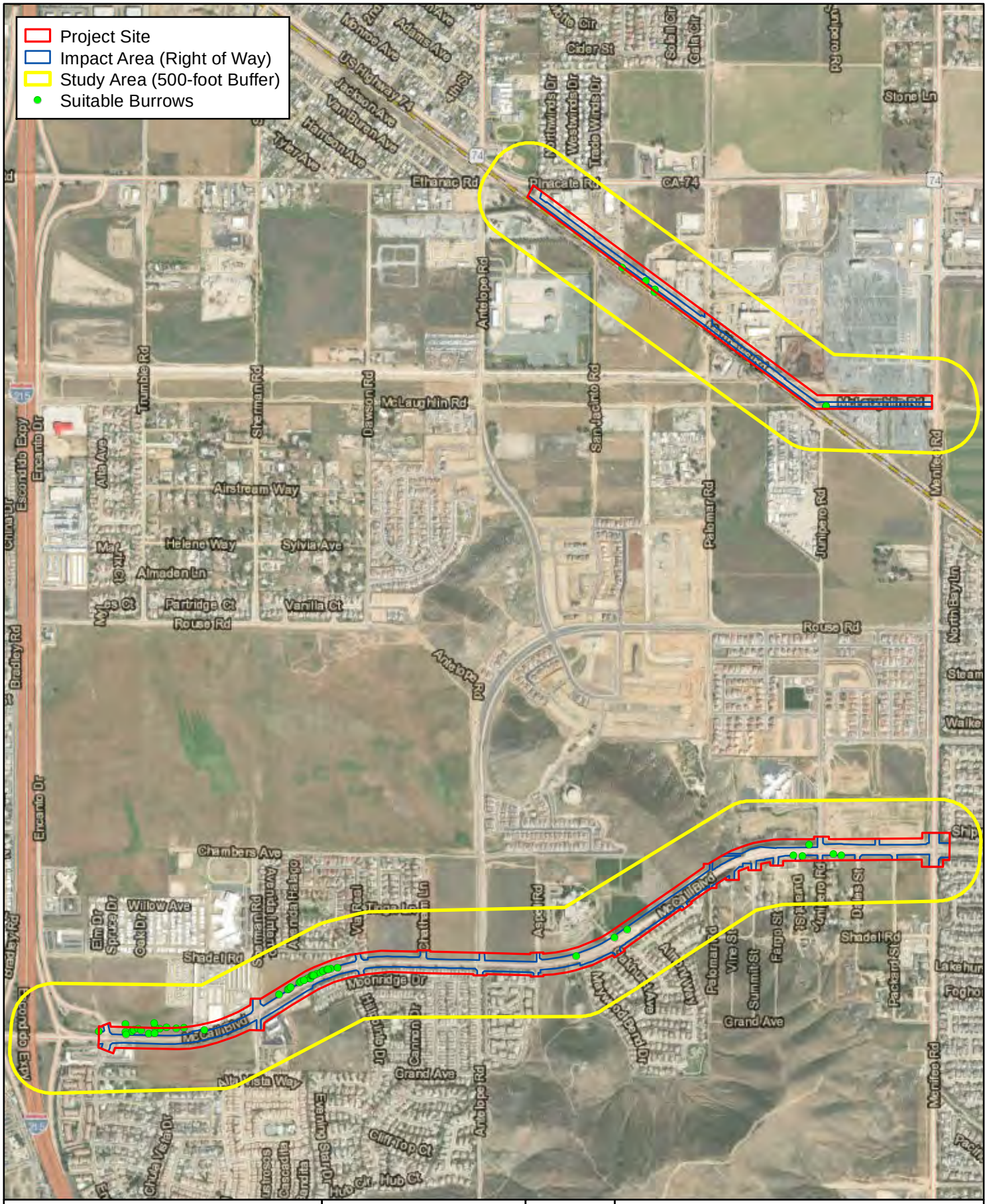
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



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VCS Environmental

Map Created: July 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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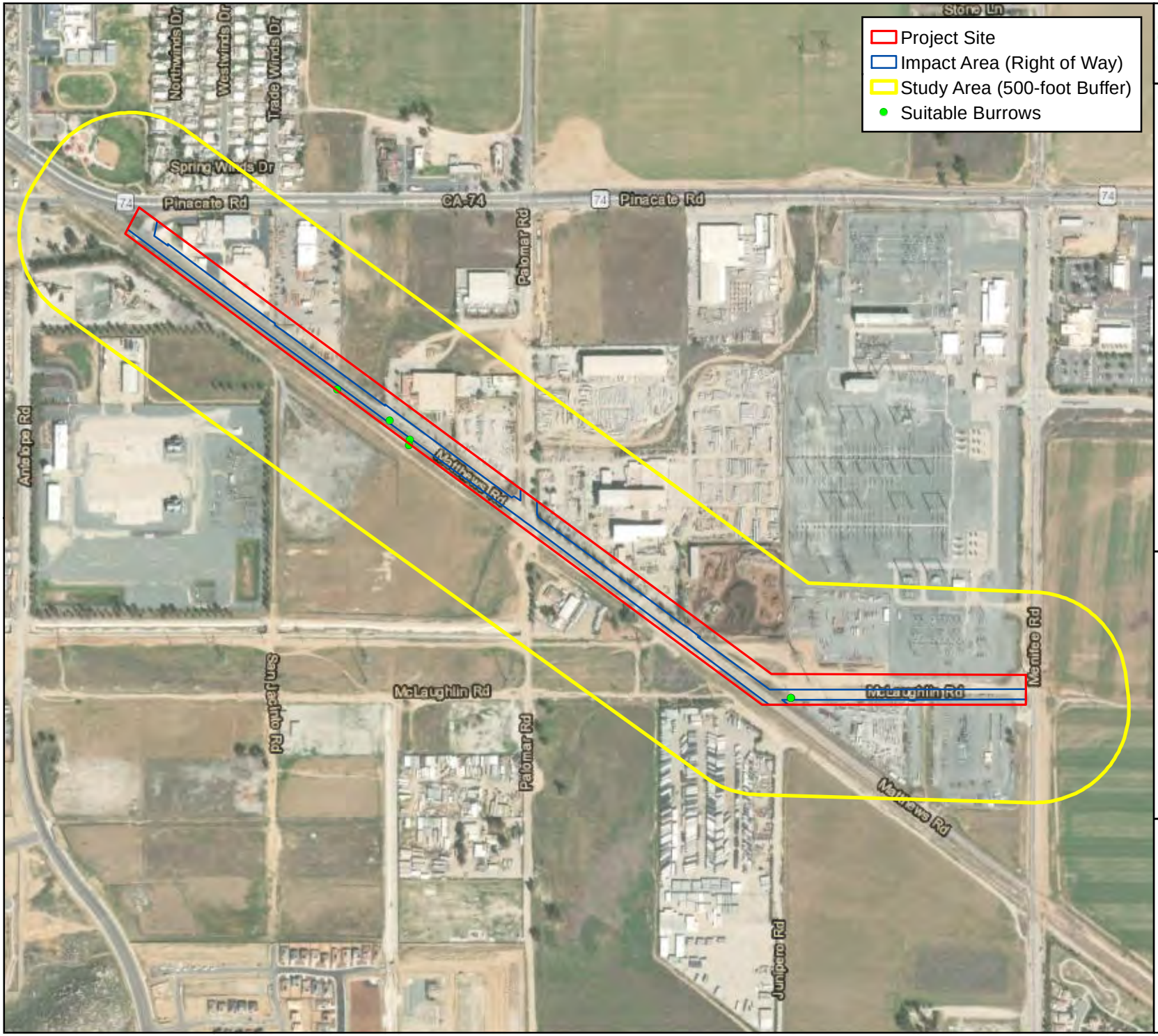
Menifee Valley
Additional Offsite Areas

Figure 6 Burrowing Owl Map



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Menifee Valley Additional Offsite Areas

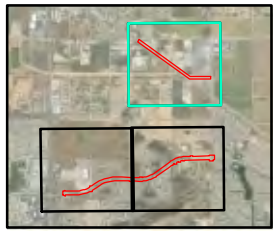

Figure 6

Burrowing Owl Map

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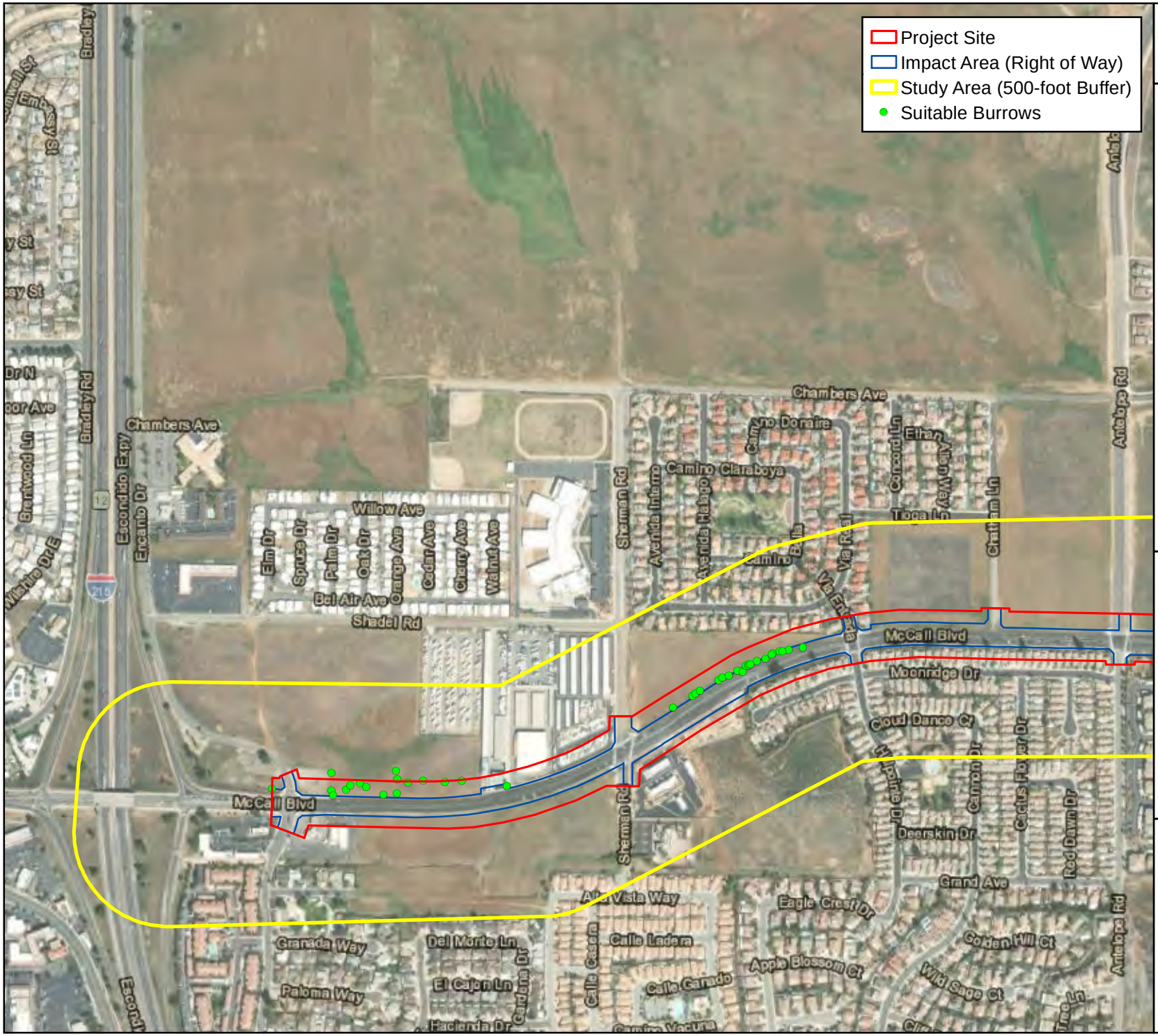
Map Date: July 2023
Data Sources: ESRI



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Menifee Valley Additional Offsite Areas

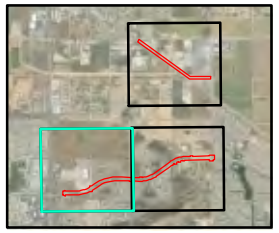

Figure 6

Burrowing Owl Map

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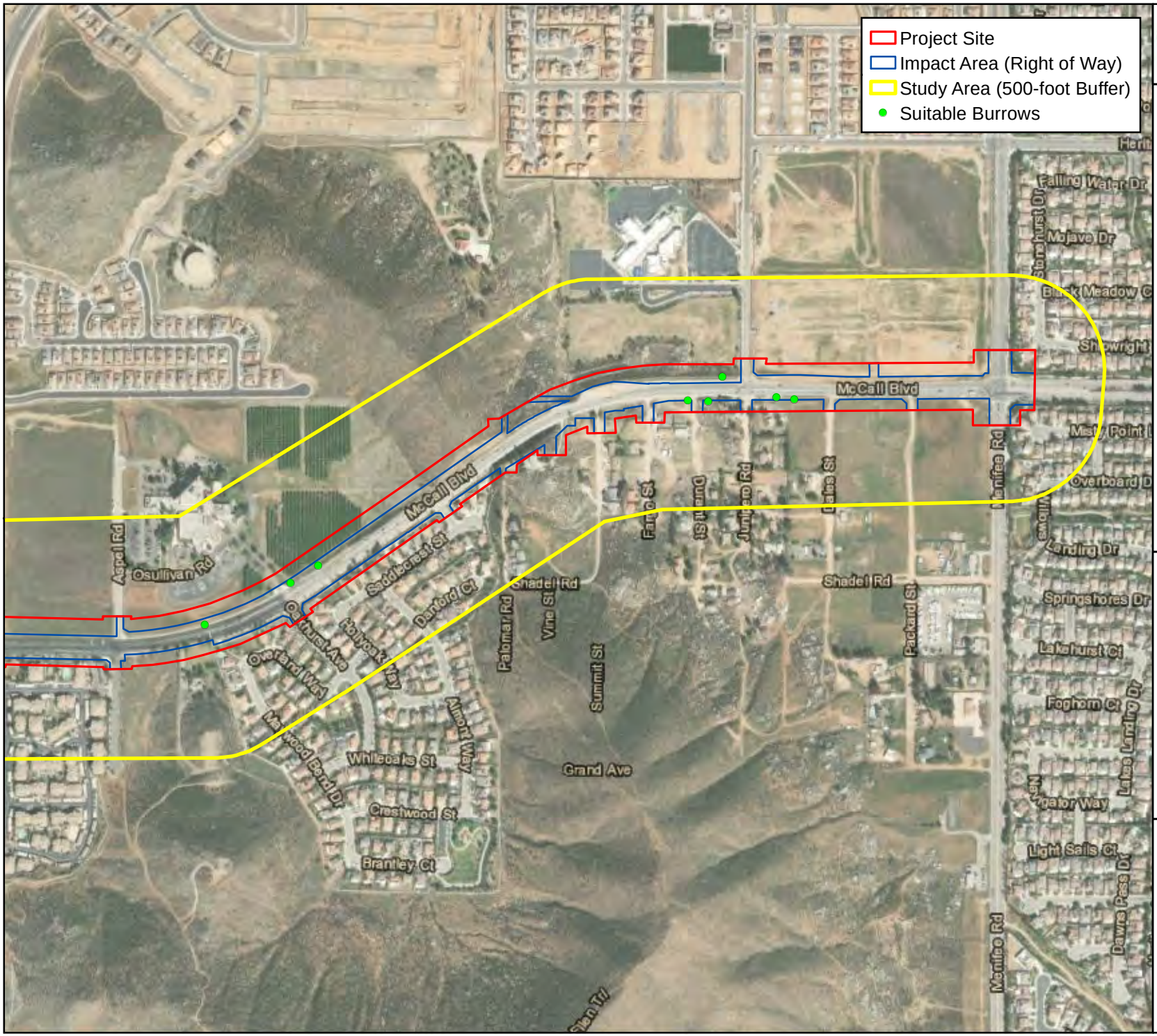
Map Date: July 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

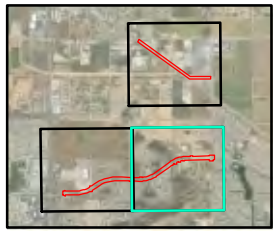

Figure 6

Burrowing Owl Map

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Map Date: July 2023
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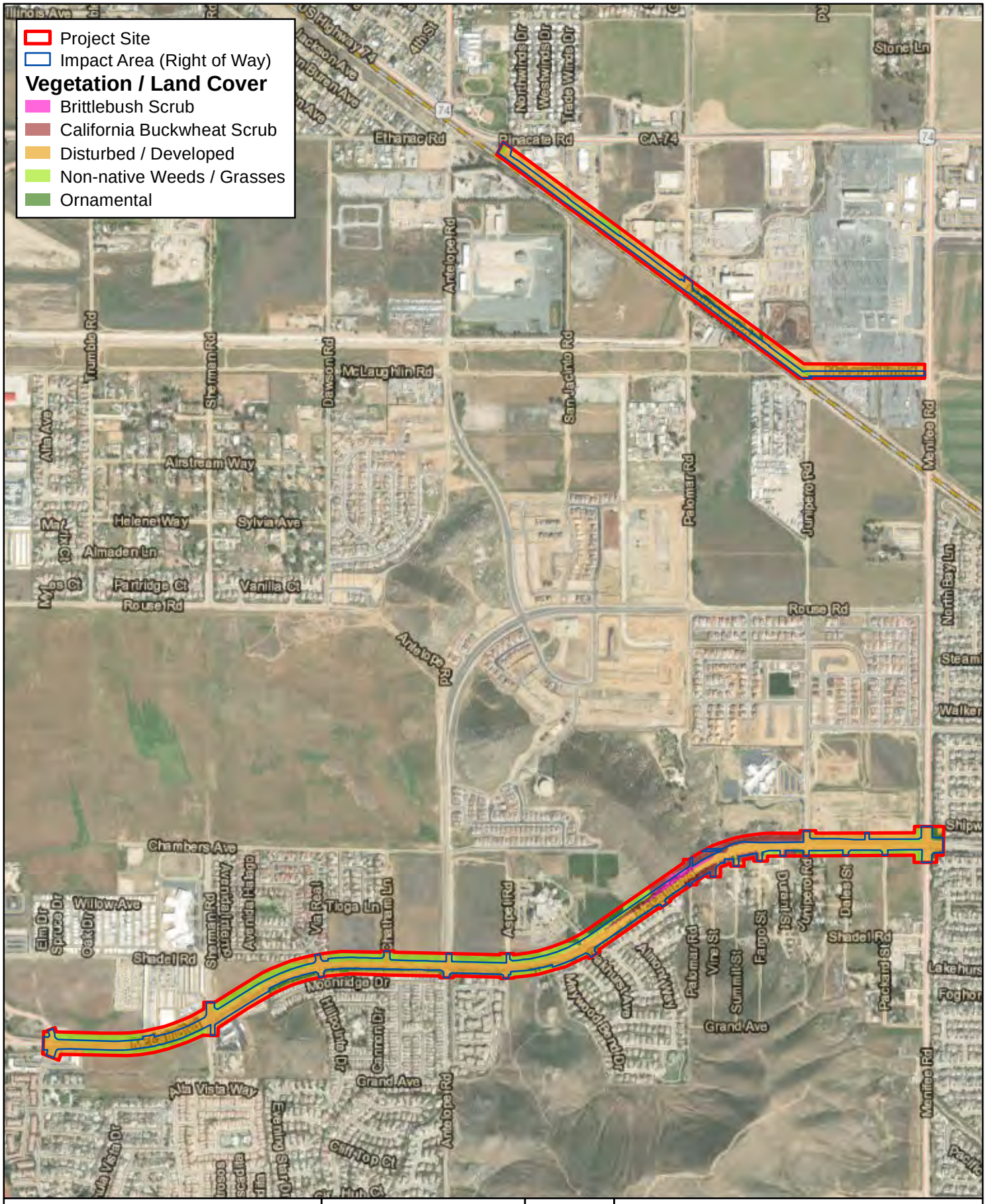
Project Site
Impact Area (Right of Way)
Vegetation / Land Cover
Brittlebush Scrub
California Buckwheat Scrub
Disturbed / Developed
Non-native Weeds / Grasses
Ornamental
Etharac Rd
Pinacate Rd
CA-74
Antelope Rd
Trumble Rd
Sherman Rd
Dawson Rd
McLaughlin Rd
San Jacinto Rd
Menifee Rd
Palomar Rd
Juniper Rd
Airstream Way
Helene Way
Sylvia Ave
Almaden Ln
Partridge Ct
Vanilla Ct
Rouse Rd
North Bay Ln
Chambers Ave
Willow Ave
Elm Dr
Spruce Dr
Oak Dr
Shadel Rd
Avenida Malaga
Via Real
Tioga Ln
Chaltare Ln
Aspel Rd
Noonridge Dr
Cannon Dr
Grand Ave
Vine St
Summit St
Fargo St
Juniper St
Dales St
Packard St
Alta Vista Way
Alta Vista Dr
Cliff Top Ct
Prepared By:
VCS Environmental
Map Created: July 2023
Data Sources: ESRI
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
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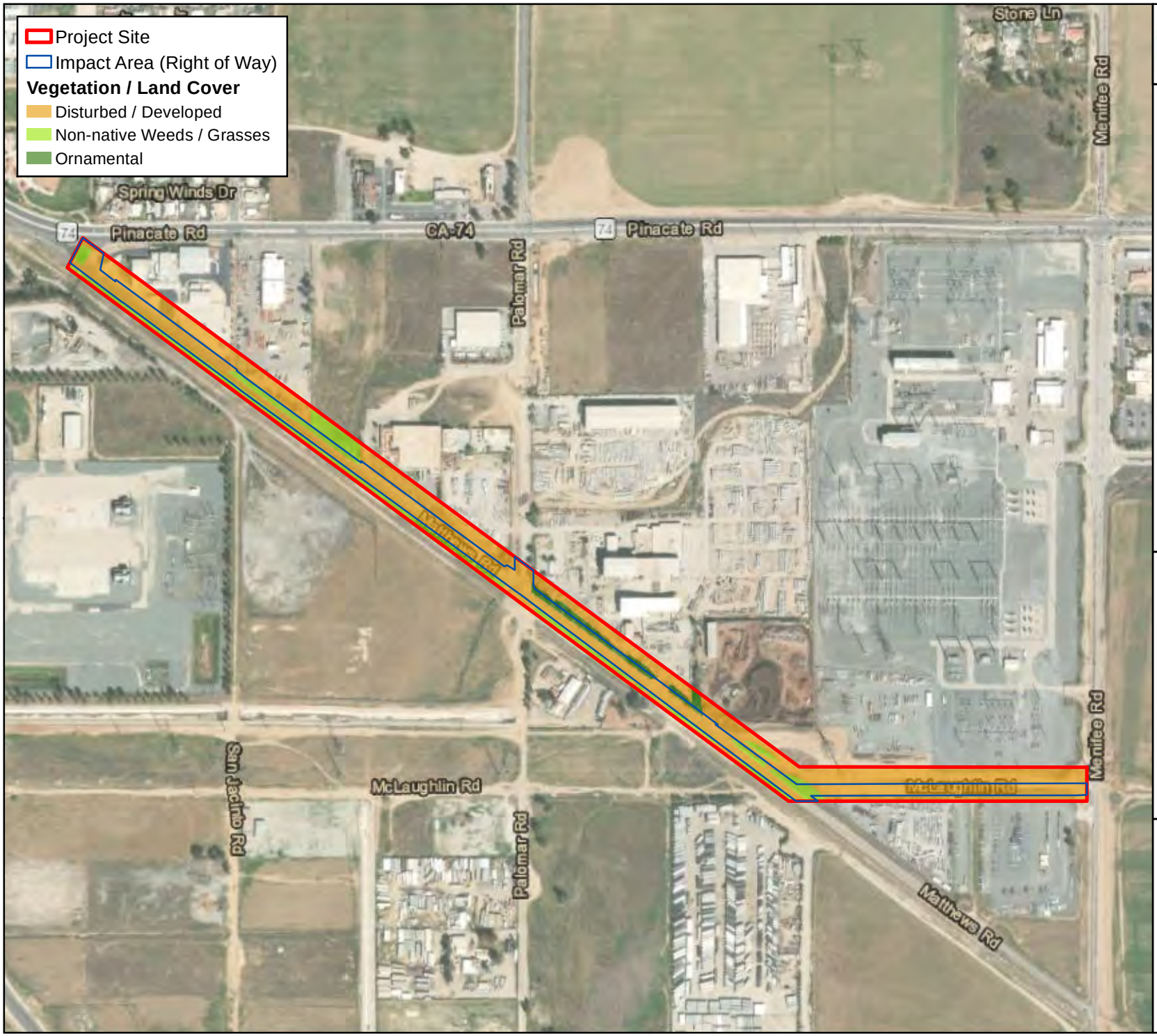
Menifee Valley
Additional Offsite Areas
Figure 7
Vegetation Map



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Menifee Valley Additional Offsite Areas

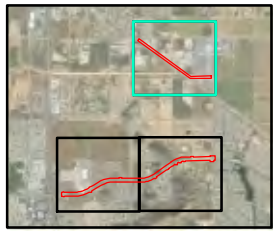

Figure 7

Vegetation Map

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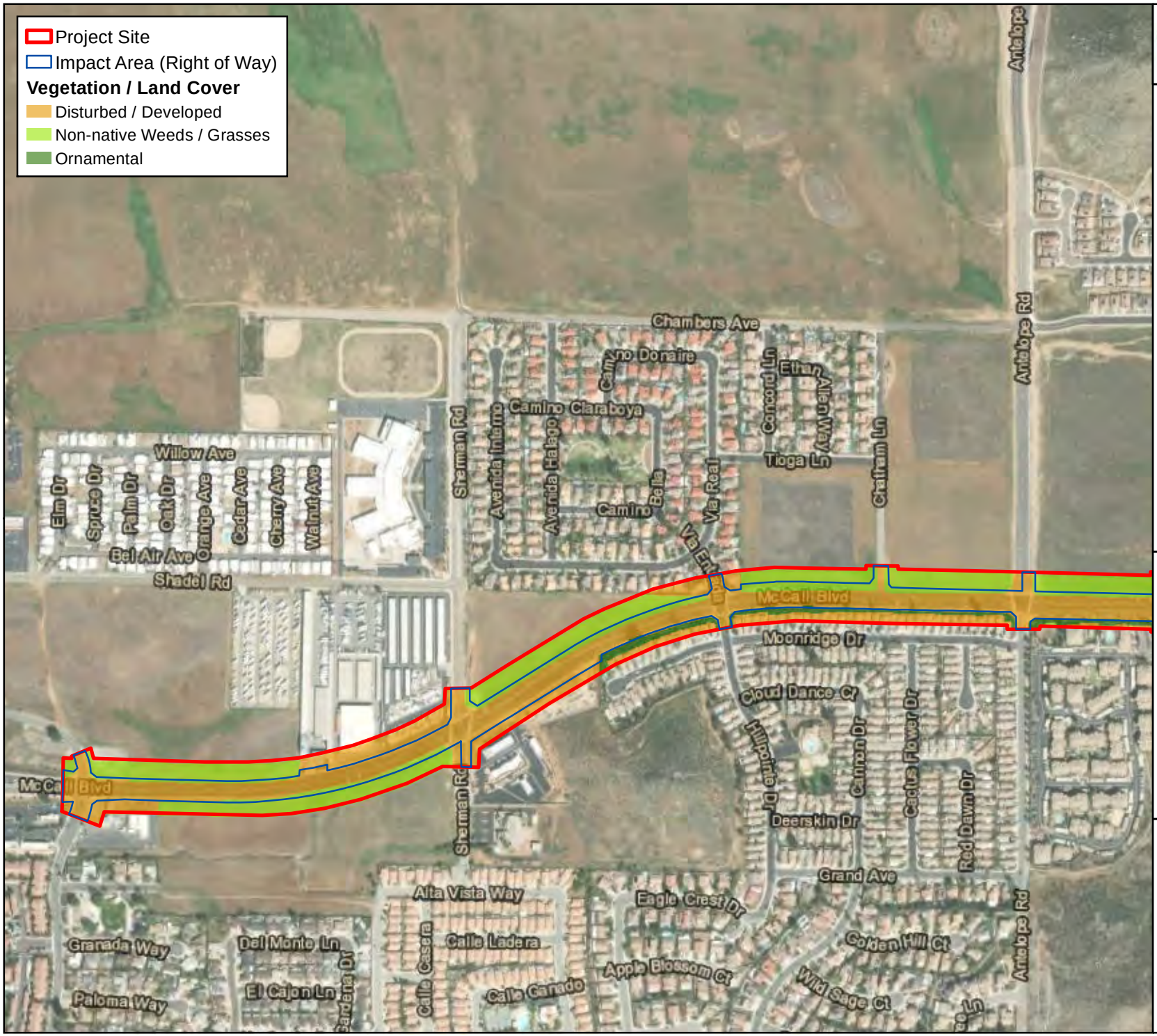
Map Date: July 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

Figure 7

Vegetation Map

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Map Date: July 2023
Data Sources: ESRI

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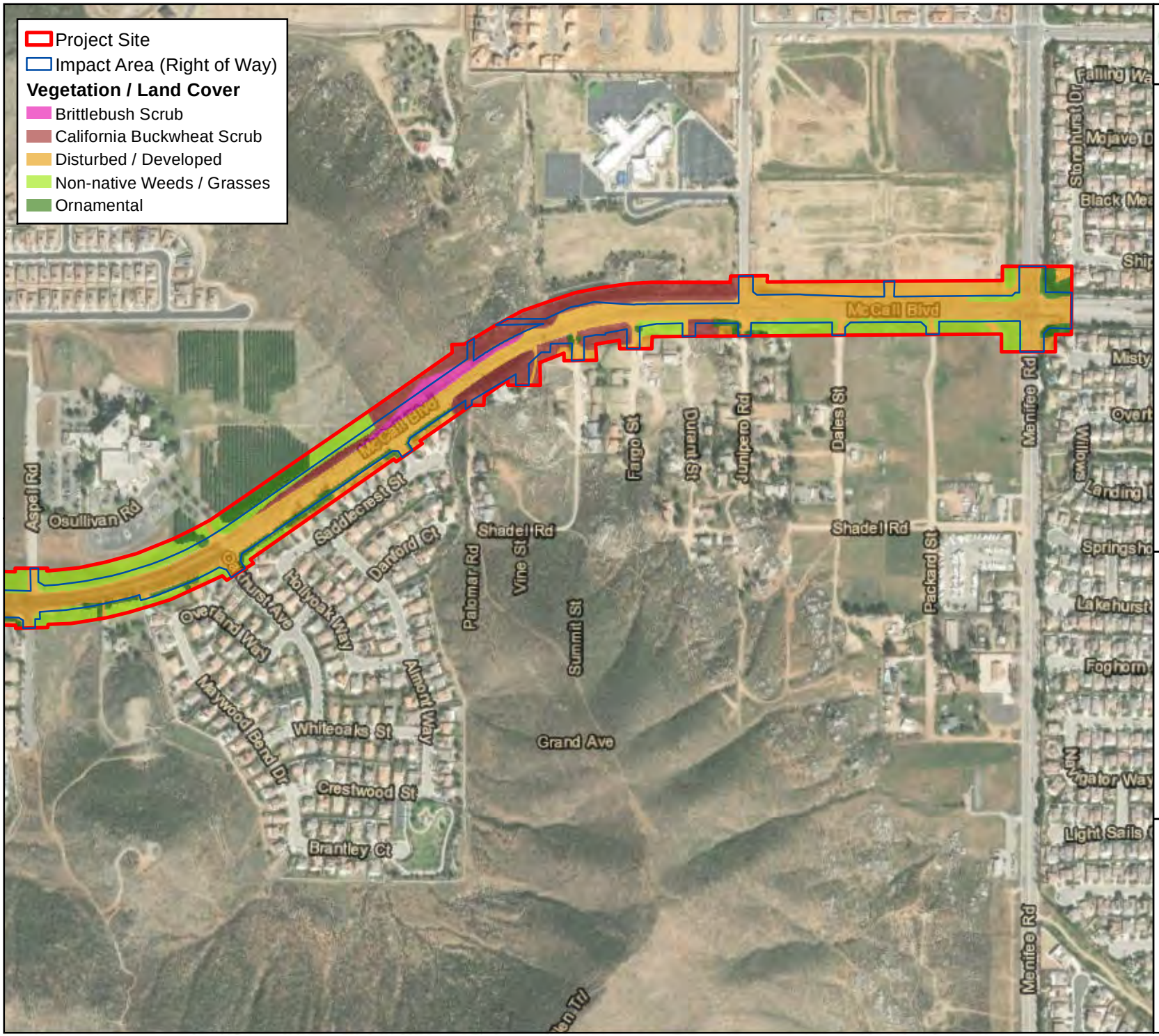

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Menifee Valley Additional Offsite Areas

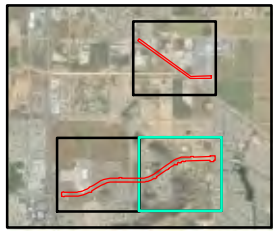

Figure 7

Vegetation Map

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Map Date: July 2023
Data Sources: ESRI


Project Site
Impact Area (Right of Way)
Waters of the State
Disturbed Ephemeral Streambed
Etheanac Rd
Pinacate Rd
CA-74
Antelope Rd
Trumble Rd
Sherman Rd
Dawson Rd
McLaughlin Rd
San Jacinto Rd
Palomar Rd
Juniper Rd
Menifee Rd
Airstream Way
Helene Way
Sylvia Ave
Almaden Ln
Partridge Ct
Vanilla Ct
Rouse Rd
Chambers Ave
Willow Ave
Shadel Rd
Tioga Ln
Chatham Ln
Aspel Rd
McCall Blvd
Vine St
Summit St
Fargo St
Dale St
Grand Ave
Noonridge Dr
Cannon Dr
Alta Vista Way
Cliff Top Ct
Almond Way
Maywood Ranch Rd
Lakehurst Ave
Packard St
Lakehurst
Foghorn
Steamb
Walker
Shipw
North Bay Ln
Stone Ln
Cider St
Northwinds Dr
Westwinds Dr
Trade Winds Dr
Sherman Rd
Avenida Tarbago
Via Real
Elm Dr
Spruce Dr
Oak Dr
Alta Ave
Mat Ct
Prepared By:
VCS Environmental
Map Created: September 2023
Data Sources: ESRI
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
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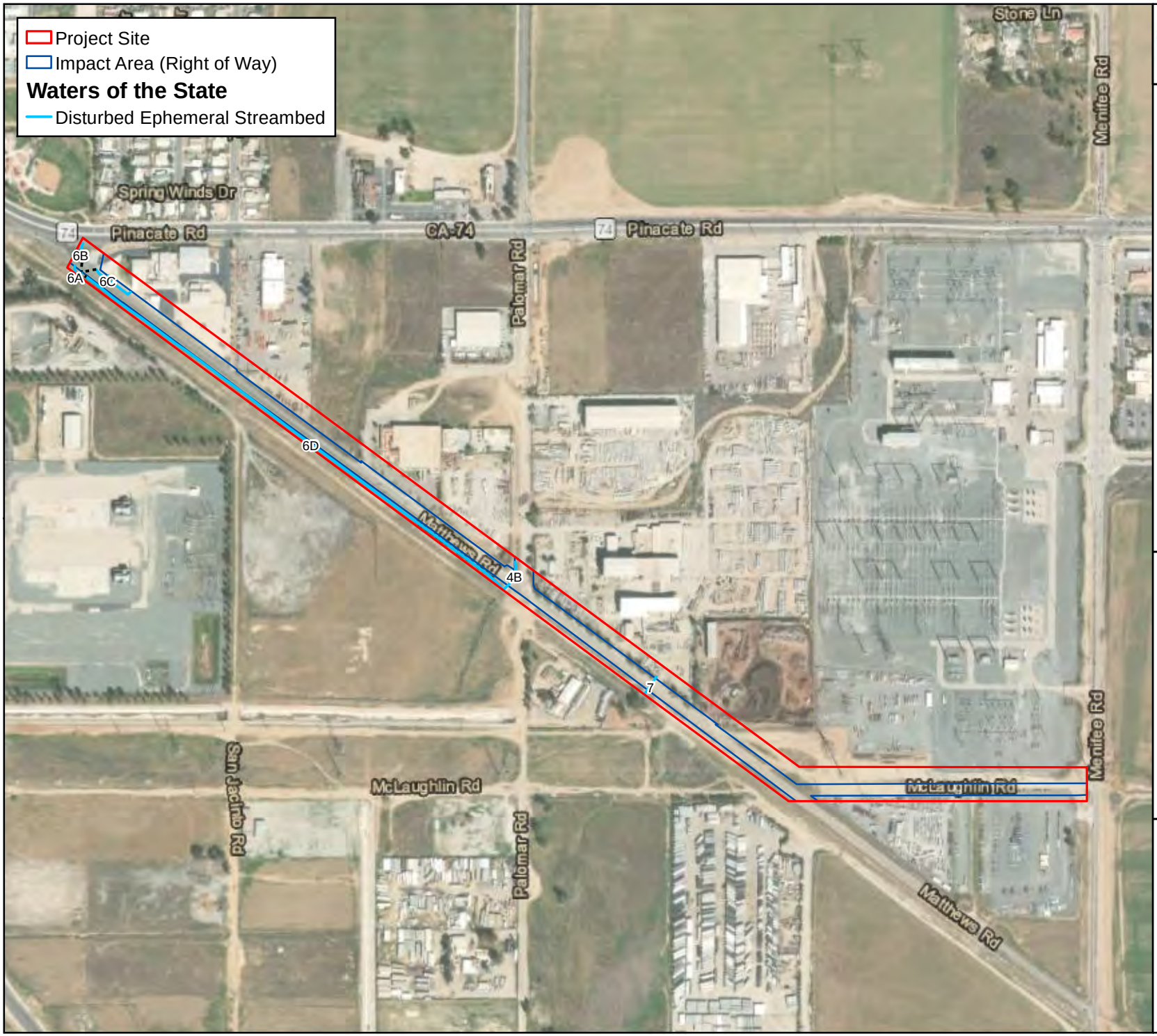
Menifee Valley
Additional Offsite Areas
Figure 8 Waters of the State Map



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Menifee Valley Additional Offsite Areas

Figure 8

Waters of the State Map

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Map Date: September 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Menifee Valley Additional Offsite Areas

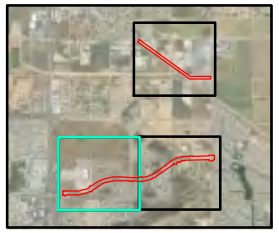

Figure 8

Waters of the State Map

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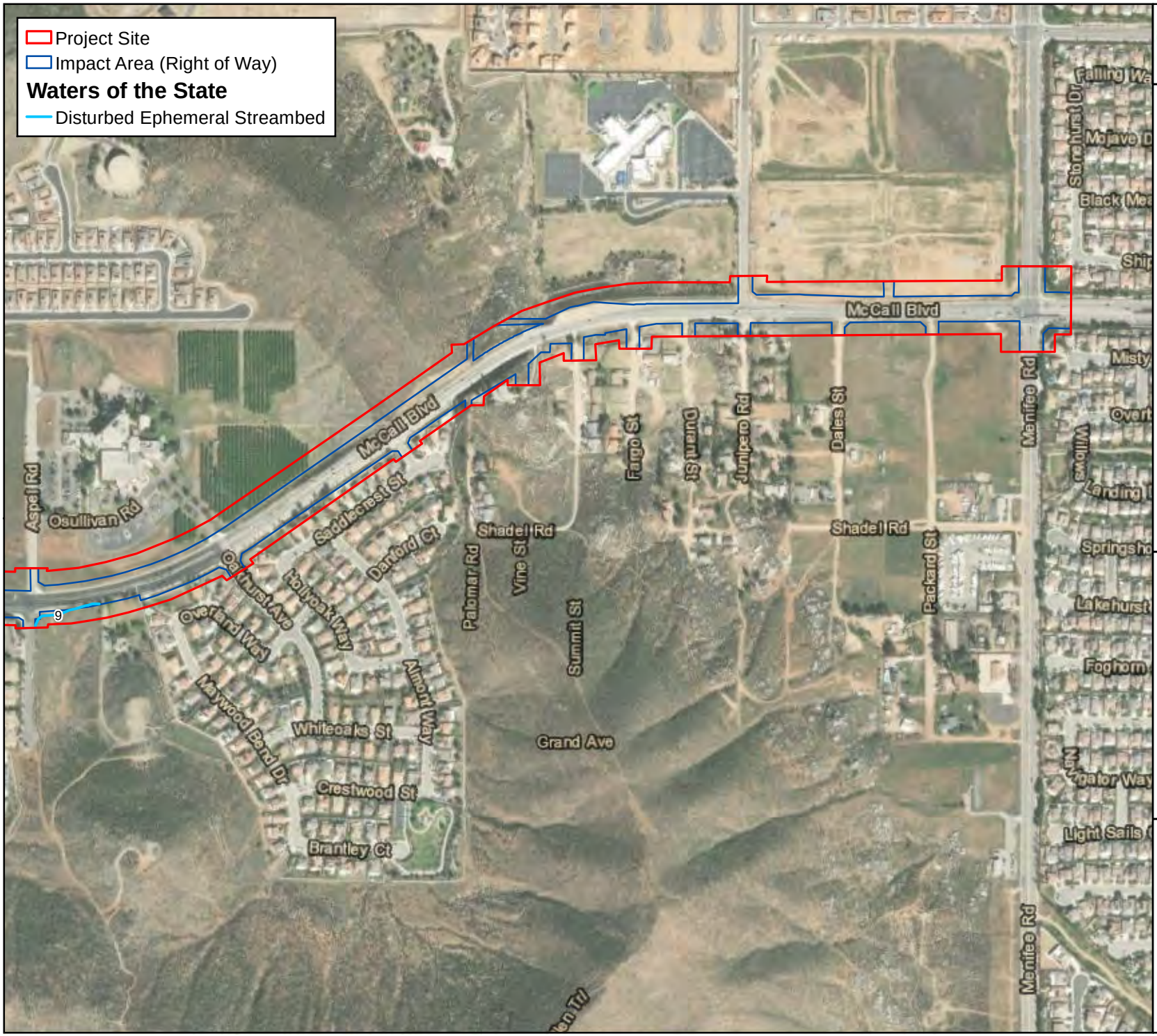
Data Sources: ESRI



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Menifee Valley Additional Offsite Areas

Figure 8

Waters of the State Map

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Map Date: September 2023
Data Sources: ESRI

Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, NWI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Menifee Valley
Additional Offsite Areas

Figure 9

NWI Map

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Menifee Valley Additional Offsite Areas

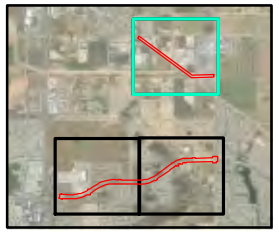

Figure 9

NWI Map

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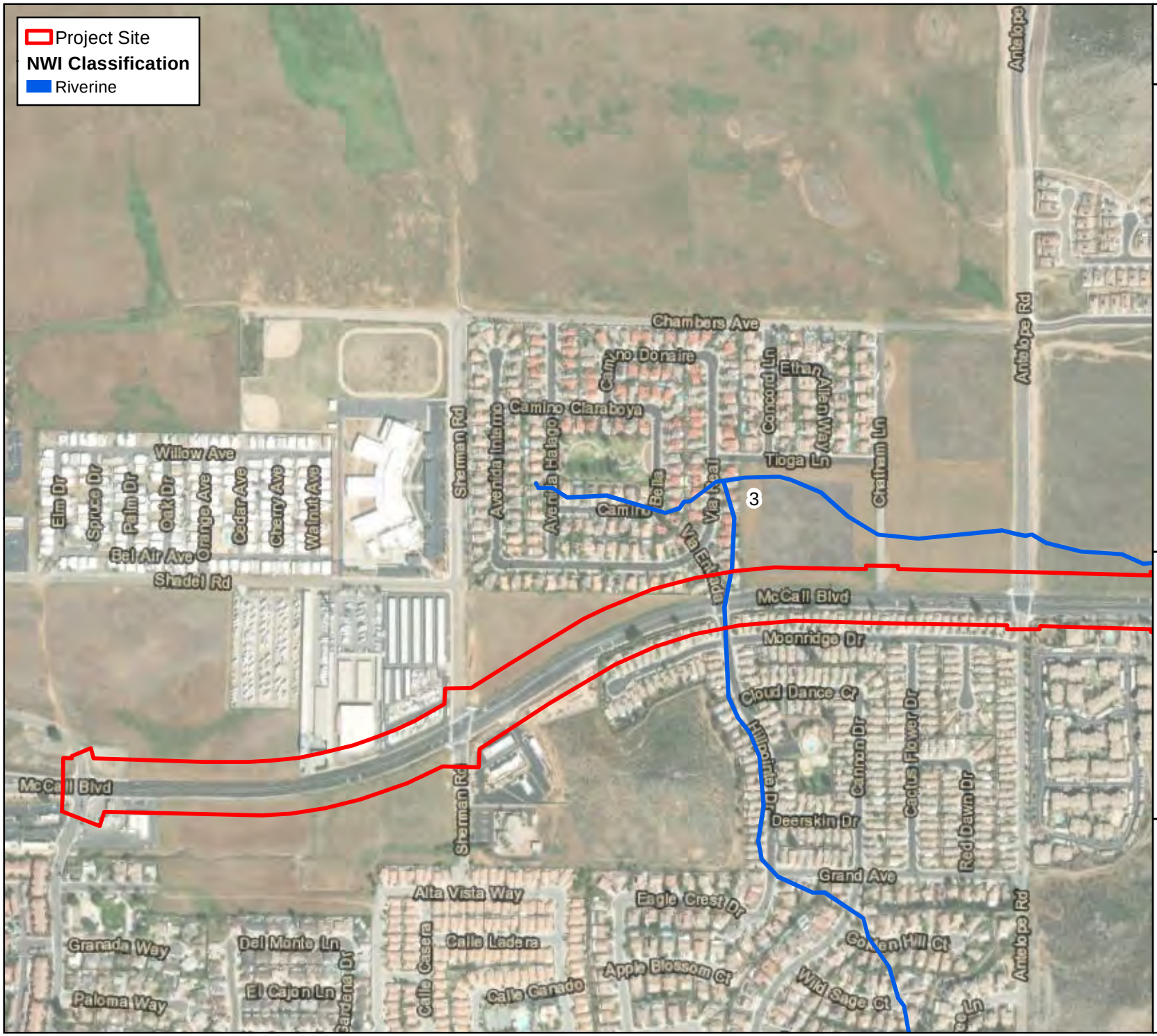
Map Date: July 2023
Data Sources: ESRI, NWI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

Figure 9

NWI Map

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Map Date: July 2023
Data Sources: ESRI, NWI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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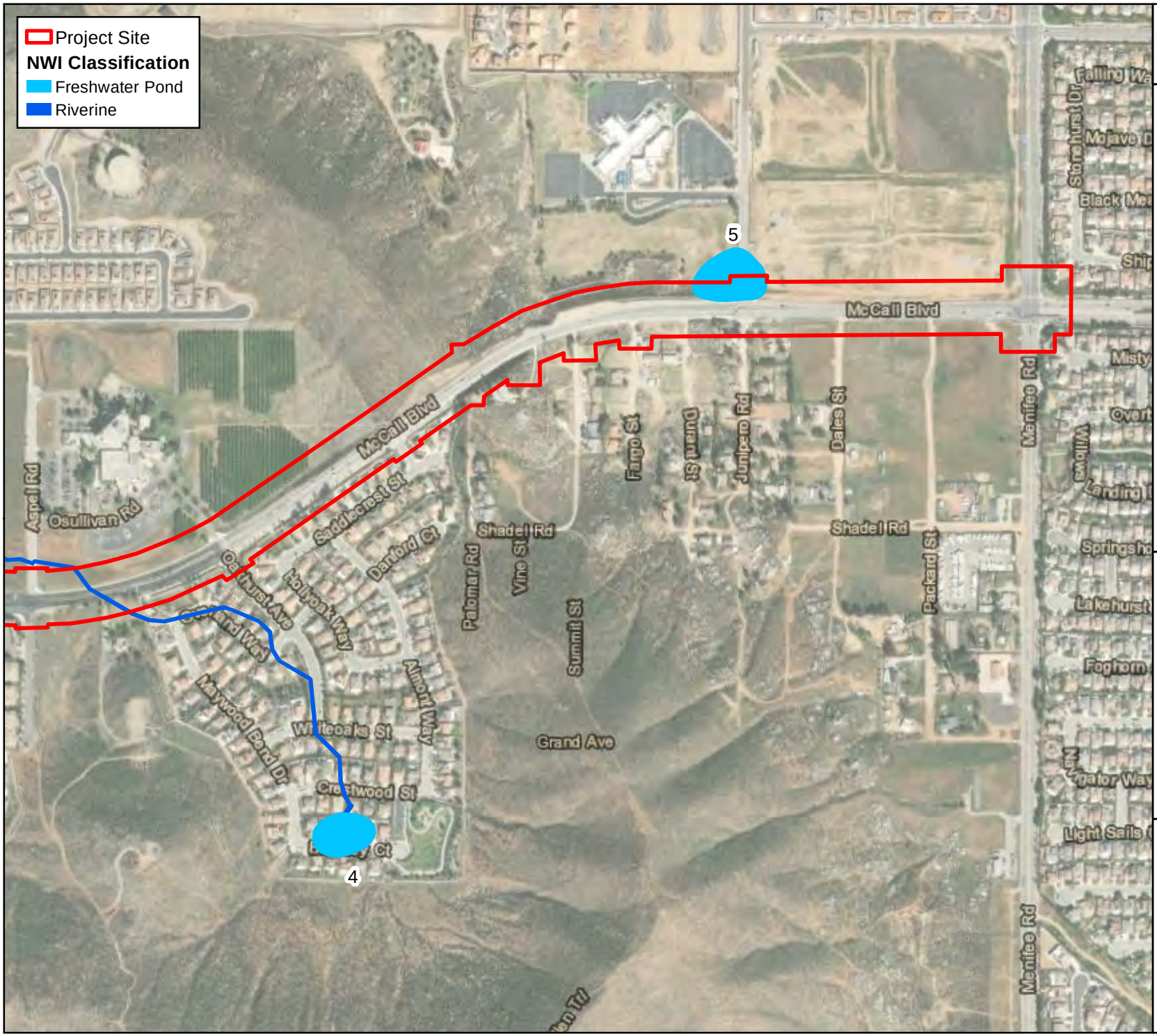

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Menifee Valley Additional Offsite Areas

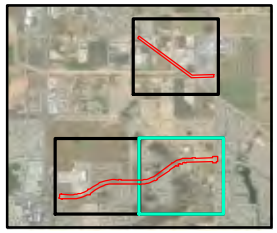

Figure 9

NWI Map

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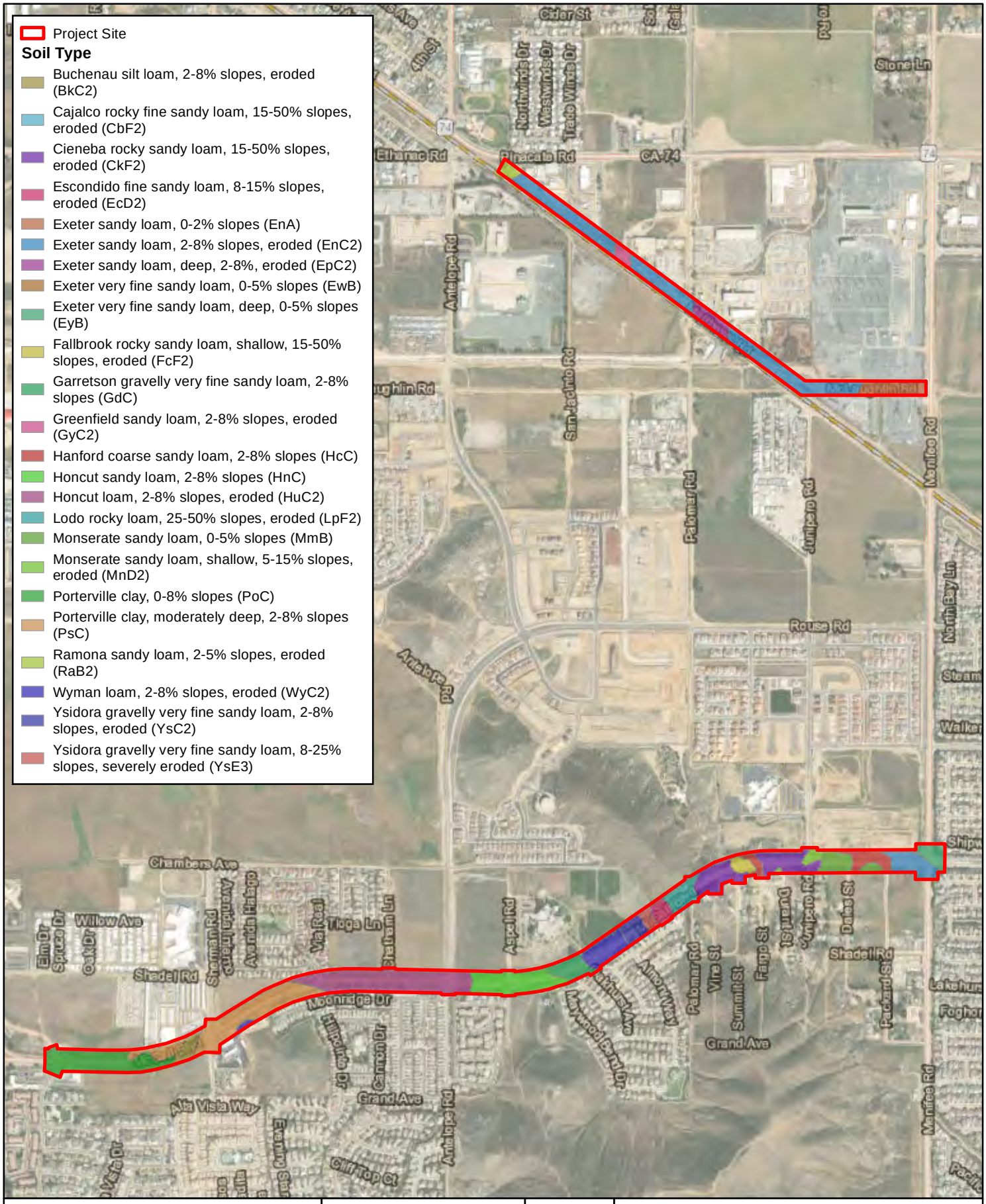
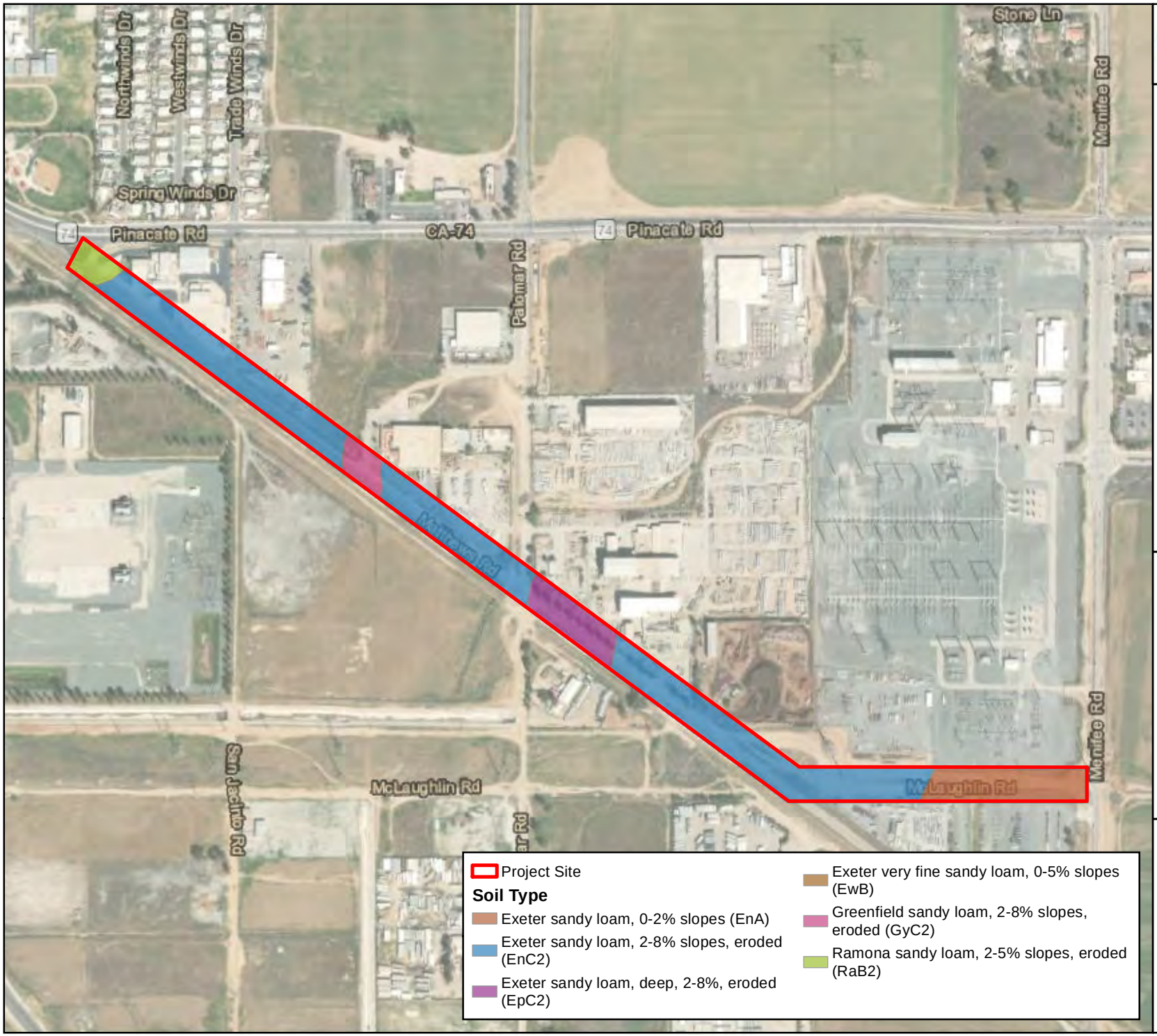
Map Date: July 2023
Data Sources: ESRI, NWI



Menifee Valley
Additional Offsite Areas

Figure 10

Soil Map



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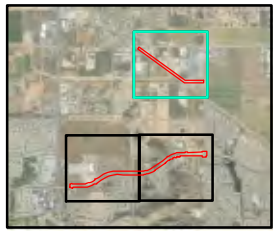

Figure 10

Soil Map

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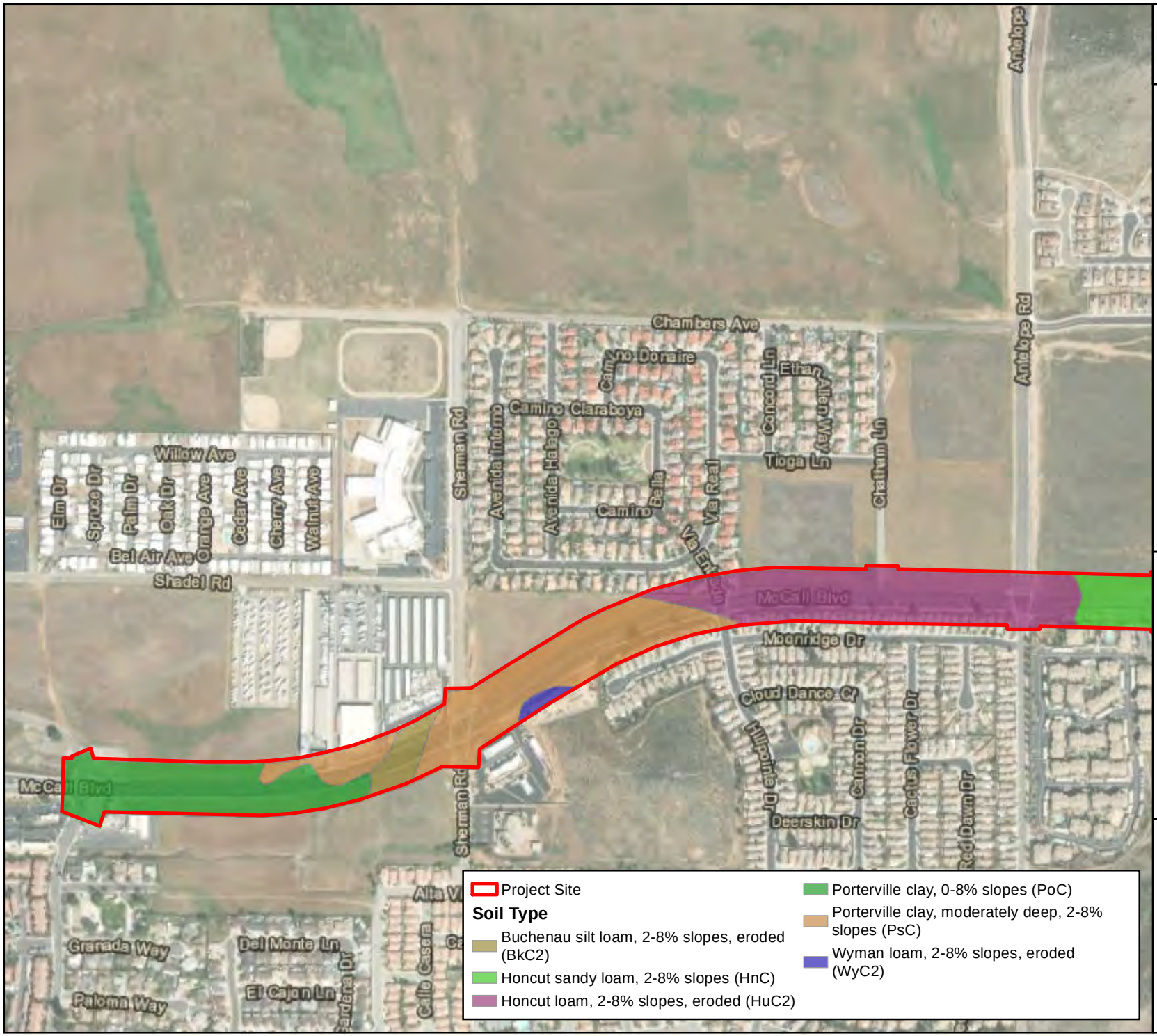
Map Date: July 2023
Data Sources: ESRI, NRCS

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

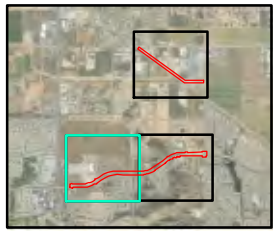

Figure 10

Soil Map

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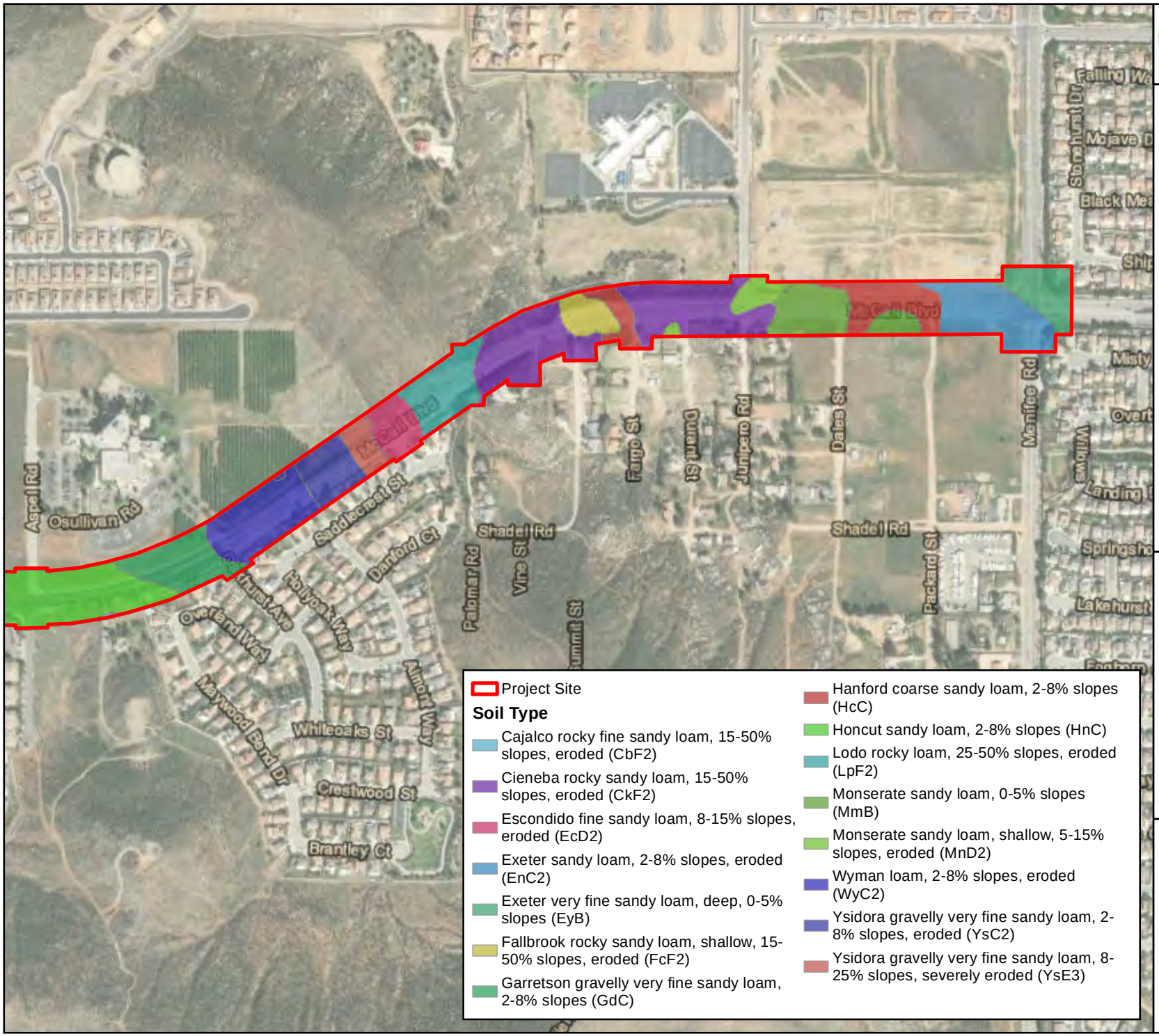
Map Date: July 2023
Data Sources: ESRI, NRCS

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

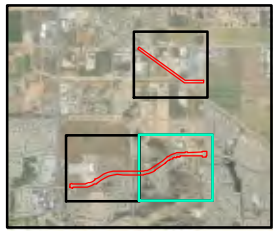

Figure 10

Soil Map

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Map Date: July 2023
Data Sources: ESRI, NRCS

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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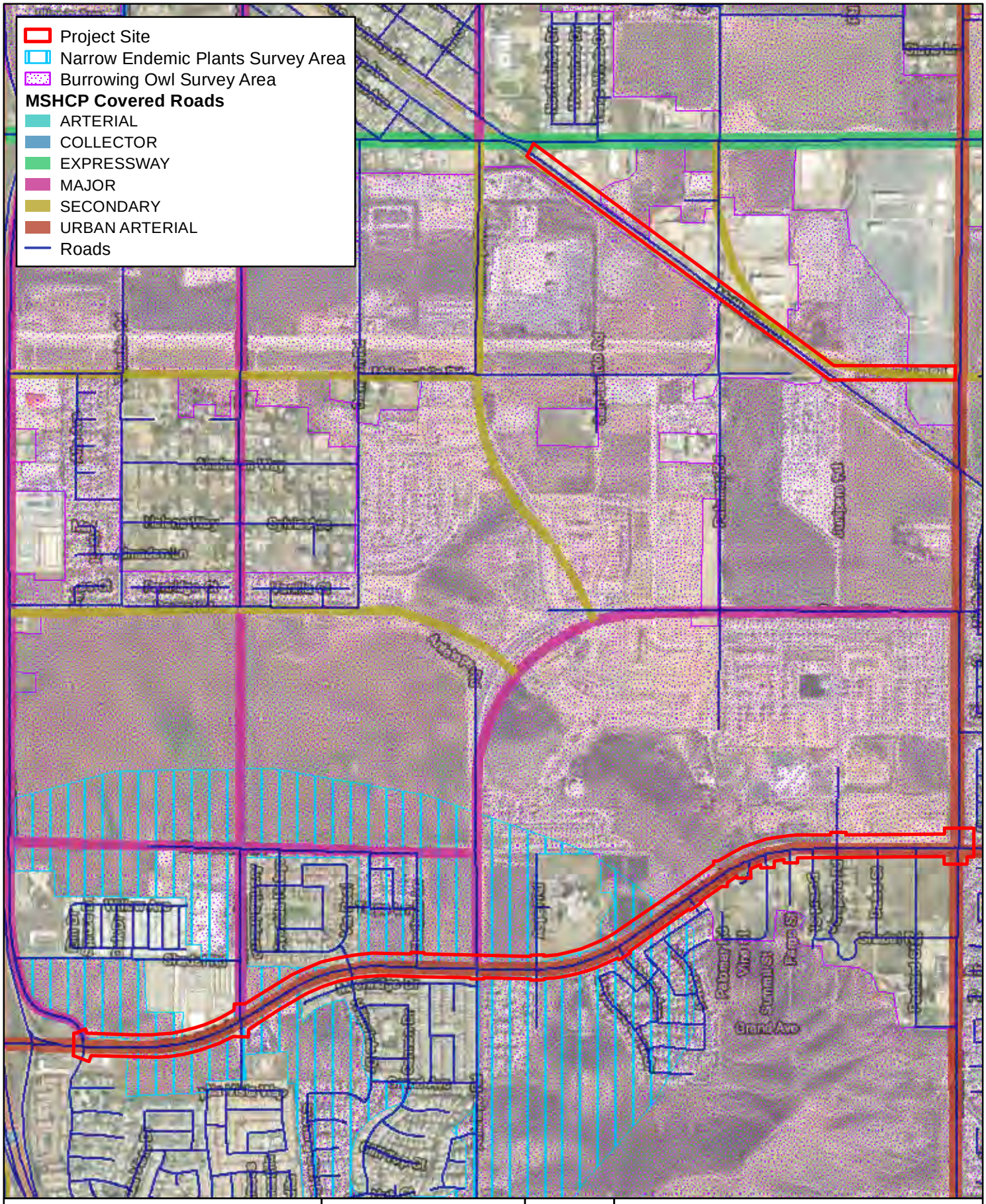

Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, MSHCP

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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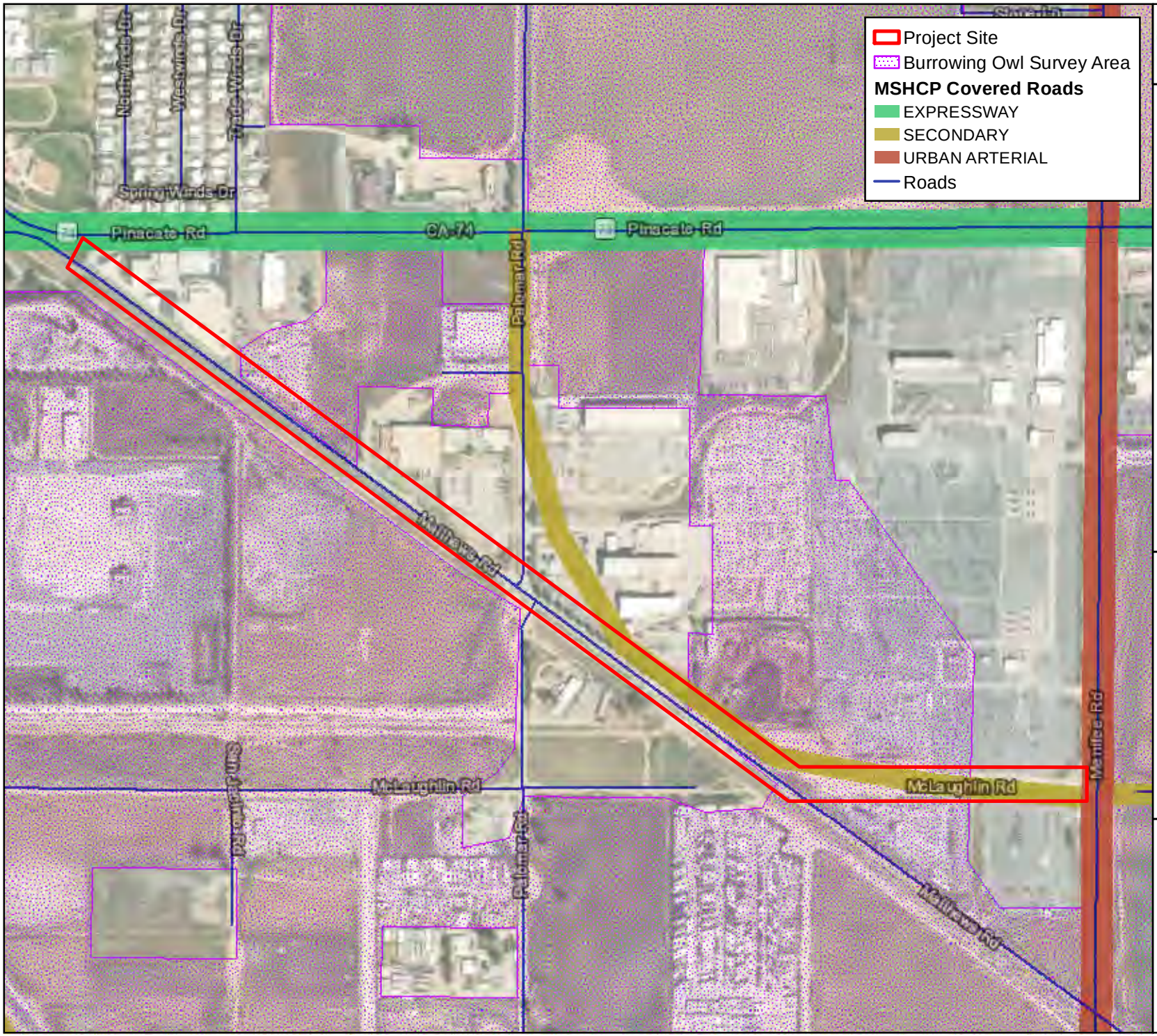
Menifee Valley
Additional Offsite Areas

Figure 11

MSHCP Map



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Menifee Valley Additional Offsite Areas

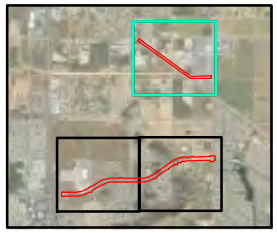


Figure 11

MSHCP Map

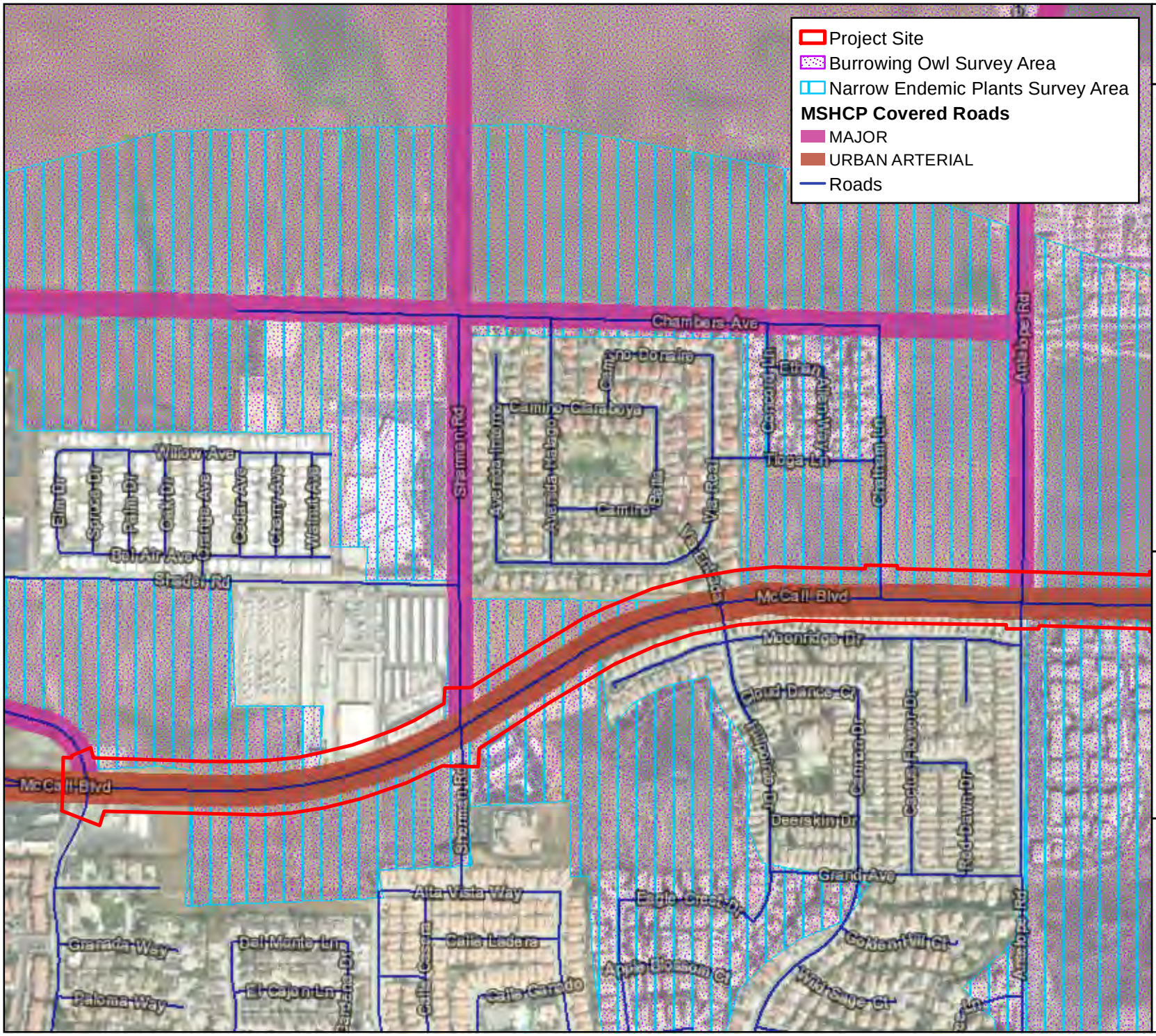
N
W E
S

0 350 700
Feet

1:7,500

Map Date: July 2023
Data Sources: ESRI, MSHCP

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



VCS Environmental
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Menifee Valley Additional Offsite Areas

Figure 11

MSHCP Map

N
W E
S

0 350 700
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1:7,500

Map Date: July 2023
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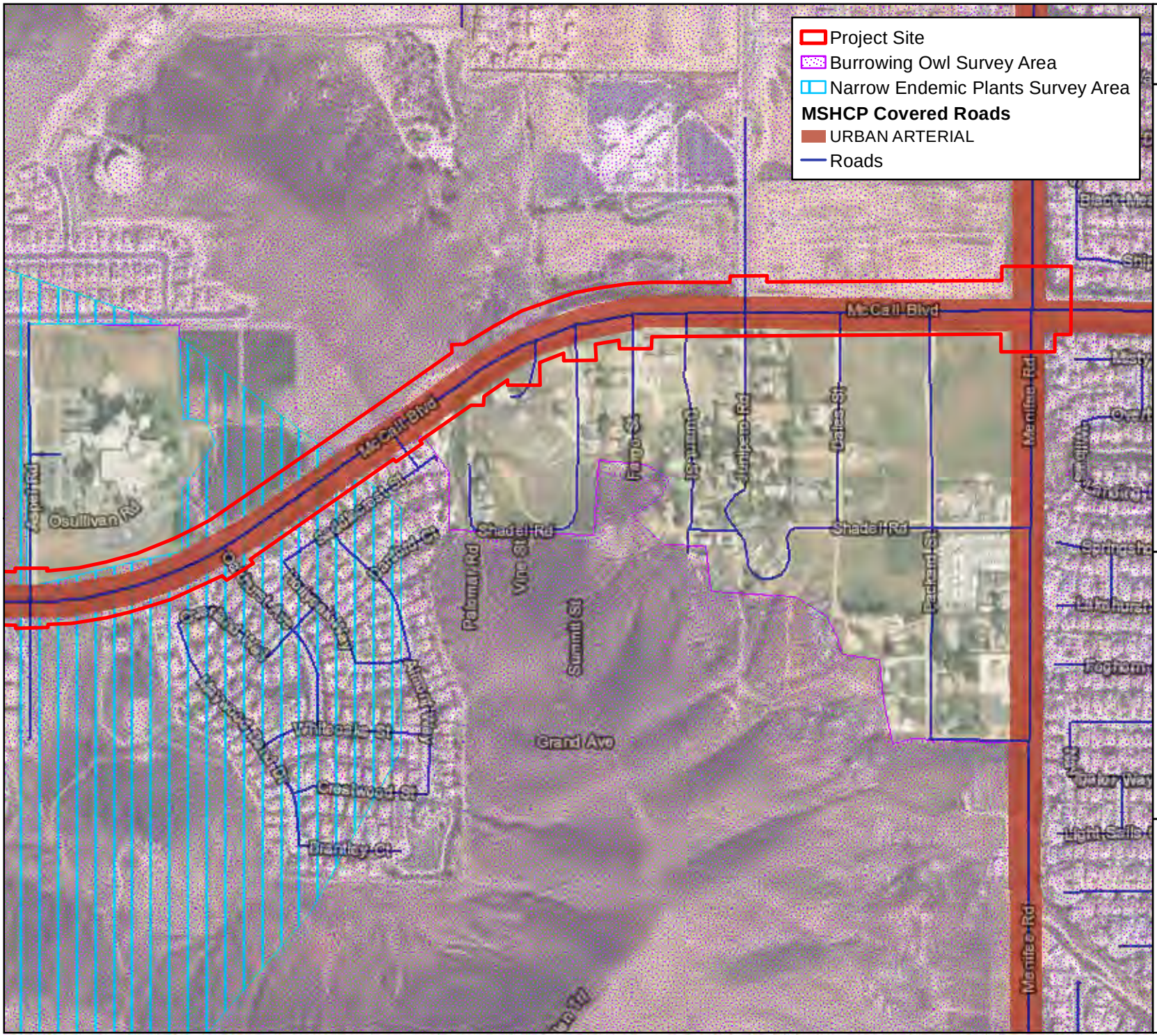

VCS Environmental
EXPERT SOLUTIONS · CEQA-NEPA · Biology · Regulatory

Menifee Valley Additional Offsite Areas

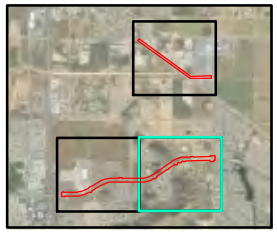

Figure 11

MSHCP Map

N
W E
S

0 350 700
Feet

1:7,500

Map Date: July 2023
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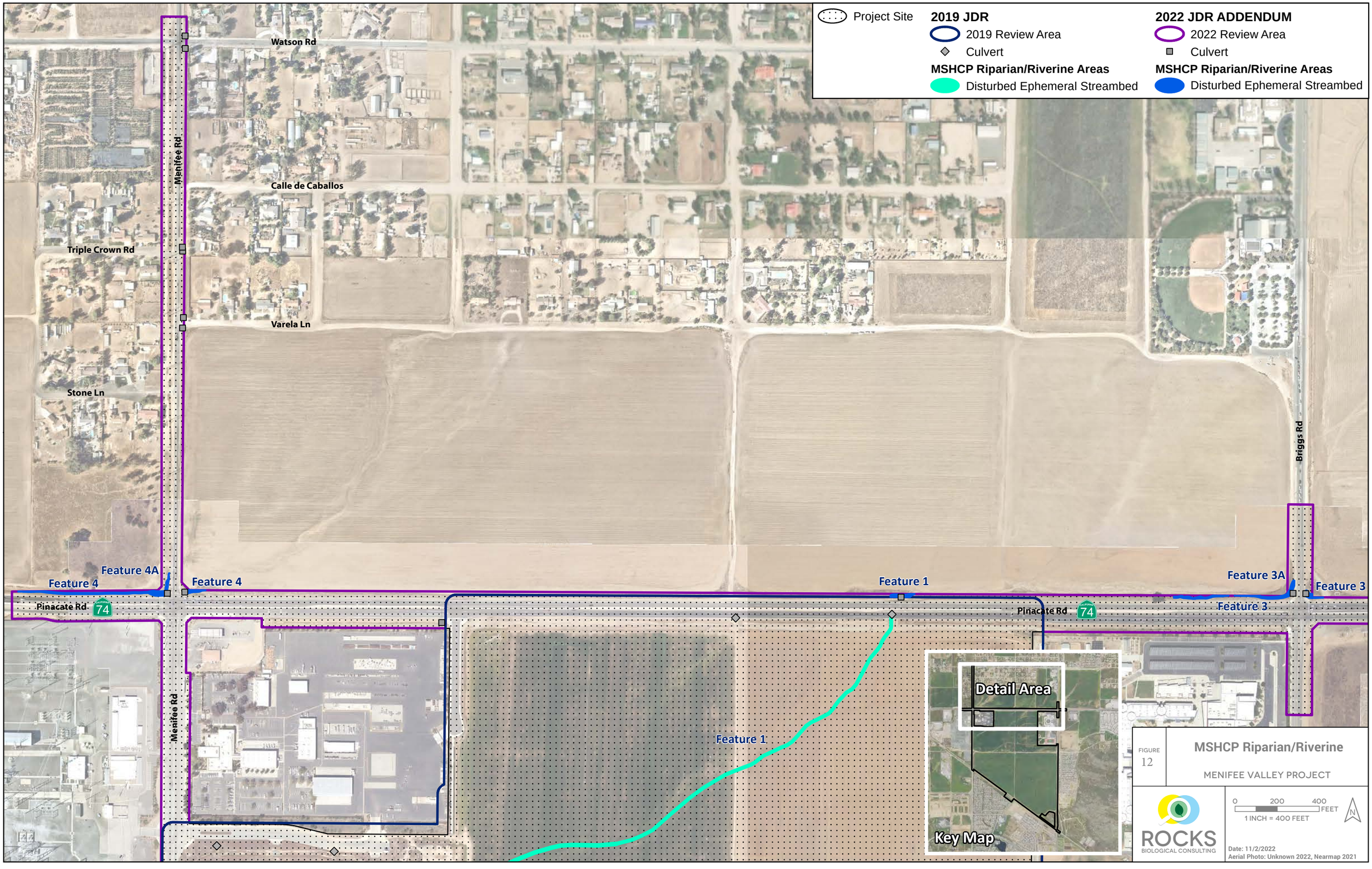
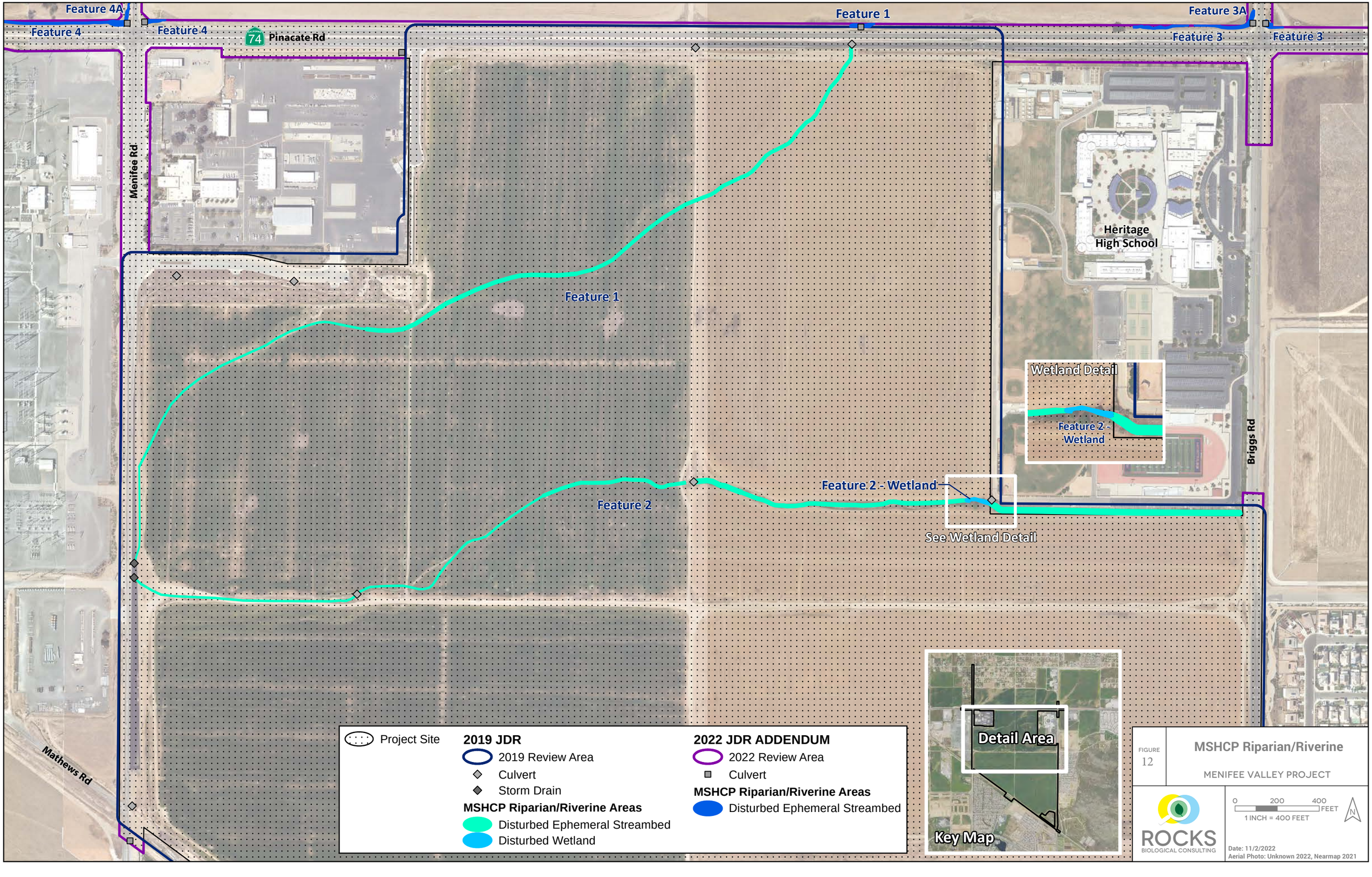

Project Site
2019 JDR
2019 Review Area
Culvert
MSHCP Riparian/Riverine Areas
Disturbed Ephemeral Streambed
2022 JDR ADDENDUM
2022 Review Area
Culvert
MSHCP Riparian/Riverine Areas
Disturbed Ephemeral Streambed
Watson Rd
Menifee Rd
Calle de Caballos
Triple Crown Rd
Varela Ln
Stone Ln
Briggs Rd
Feature 4A
Feature 4
Feature 4
Feature 1
Feature 3A
Feature 3
Feature 3
Pinacate Rd
74
Pinacate Rd
74
Menifee Rd
Feature 1
Detail Area
Key Map
FIGURE
12
MSHCP Riparian/Riverine
MENIFEE VALLEY PROJECT
ROCKS
BIOLOGICAL CONSULTING
0
200
400
FEET
1 INCH = 400 FEET
N
Date: 11/2/2022
Aerial Photo: Unknown 2022, Nearmap 2021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Feature 4
Feature 4
74 Pinacate Rd
Feature 1
Feature 3A
Feature 3
Feature 3
Menifee Rd
Heritage High School
Feature 1
Wetland Detail
Feature 2 - Wetland
Briggs Rd
Feature 2
Feature 2 - Wetland
See Wetland Detail
Mathews Rd
Project Site
2019 JDR
2019 Review Area
Culvert
Storm Drain
MSHCP Riparian/Riverine Areas
Disturbed Ephemeral Streambed
Disturbed Wetland
2022 JDR ADDENDUM
2022 Review Area
Culvert
MSHCP Riparian/Riverine Areas
Disturbed Ephemeral Streambed
Detail Area
Key Map
FIGURE 12
MSHCP Riparian/Riverine
MENIFEE VALLEY PROJECT
ROCKS BIOLOGICAL CONSULTING
0 200 400 FEET
1 INCH = 400 FEET
Date: 11/2/2022
Aerial Photo: Unknown 2022, Nearmap 2021

Project Site

2019 JDR
2019 Review Area
Culvert

2022 JDR ADDENDUM
2022 Review Area
Culvert

2023 AGENCY FIELD VISIT
MSHCP Riparian/Riverine Areas
Disturbed Ephemeral Streambed

Mathews Rd
Menifee Rd
Briggs Rd
Riptide Dr
Heritage Lake Dr
Feature 5

Detail Area
Key Map

FIGURE 12

MSHCP Riparian/Riverine

MENIFEE VALLEY PROJECT

ROCKS BIOLOGICAL CONSULTING

0 200 400 FEET
1 INCH = 400 FEET

Date: 6/8/2023
Aerial Photo: Unknown 2022, Nearmap 2021

APPENDIX A

Biological Technical Report and MSHCP Consistency Analysis for the Menifee Valley Project (Additional Offsite Areas)

BIOLOGICAL TECHNICAL REPORT AND MSHCP CONSISTENCY ANALYSIS

Menifee Valley Project (Additional Offsite Areas)

PREPARED FOR:

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September 2023

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APPENDICES

1.0 INTRODUCTION

On behalf of Minor Ranch LLC, VCS Environmental (VCS) prepared this Biological Technical Report and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis for the Additional Offsite Areas related to the Menifee Valley Project. This report incorporates the findings from a general biological assessment conducted by VCS on June 26, 2023, as well as focus surveys for burrowing owl (*Athene cunicularia*) and narrow endemic plants throughout June and July of 2023. VCS prepared this report to support California Environmental Quality Act (CEQA) documentation for the additional offsite areas associated for the Menifee Valley Project, an 84.23-acre site [herein after referred to as the "Project Site"] within the City of Menifee (City). This biological report is a component of a larger set of biological studies for the Menifee Valley Project, with the following reports also having been prepared for the other components of the Project (Rocks Biological Consulting 2022).

1.1 Purpose and Approach

This report provides a summary of the conditions present during the June and July 2023 general biological survey and subsequent focus surveys, which included an assessment of the potential presence of sensitive biological resources, an assessment of potential jurisdictional waters, and an analysis of the potential impacts to those resources with implementation of the Project. Subsequent focus surveys include the findings from rare plant surveys and burrowing owl focused surveys also conducted in 2023. This report presents the current biological resources present within the Project Site including habitat communities, potential jurisdictional waters, and the potential occurrence of listed and special status plant and wildlife species. The potential biological impacts in view of federal, state, and local laws and regulations are also identified in this report. While general biological resources are discussed, the focus of this assessment is on those resources considered to be sensitive. The report also recommends, as appropriate, Best Management Practices (BMPs), avoidance, minimization, and mitigation measures to reduce or avoid potential impacts. This report was prepared based upon the results of a literature review and field survey.

1.2 Terms

The following terms will be used throughout this document and are defined as follows:

- Project Site: The approximately 84.23-acre property of additional offsite areas along McCall Boulevard, Matthews Road, and McLaughlin Road assessed during the biological survey.
- Impact Area: The approximately 41.76-acre area that encompasses the public right-of-way along McCall Boulevard, Matthews Road, and McLaughlin Road that will be permanently impacted by the proposed Project.
- Survey Area: The area subject to general assessment during the biological survey. This includes the Project Site and a 500-foot buffer around the Project Site. A large majority of this area consisted of inaccessible private property, which was therefore surveyed primarily with methods such as binoculars and aerial photographs.

1.3 Project Site Location

The Project is located in the City of Menifee, Riverside County, California (Figure 1, *Regional Map)*. Escondido Expressway (Interstate 215) borders the westernmost offsite area while Menifee Road borders the east (Figure 2, *Aerial Map*). The Survey Area follows McCall Boulevard from the Escondido Expressway and ends at the intersection of Menifee Road while the other portion of the survey area starts at the intersection of McLaughlin Road and Menifee Road and ends at the point where the Matthews Road meets Route 74 (CA-74). The Project Site occurs within Sections 13 and 22, 23, and 24, Township 5S, Range 3W on the U.S. Geological Survey (USGS) 7.5-minute Romoland quadrangle map (Figure 3, *USGS Topographic Map*).

2.0 PROJECT DESCRIPTION

The proposed Project Site infrastructure improvements includes roadway improvements and connections along Menifee Road, Matthews Road, and McLaughlin Road; the installation of subsurface utility lines in the alignment of Matthews Road along segments of the onsite area's southern boundary; and the installation of a non-vehicular bridge across Matthews Road and railroad tracks to connect the onsite development area with the Heritage Lake community to the south (Figure 4, *Exhibit of Offsite RW*).

2.1 Current Conditions

The Project Site consists of a mostly developed and disturbed land right-of-way along McCall Boulevard, Matthews Road, and McLaughlin Road. Property adjacent to the Project Site along McCall Boulevard is largely dominated by disturbed fields of non-native grasses and weeds, commercial areas, as well as residences to the north and south of McCall Boulevard. Current construction is occurring at the northeastern part of McCall Boulevard near its intersection at Menifee Road. The Project Site is on flat to gently sloping property to the west with the exception of a granitic hill on the southeastern corner of the Project Site along McCall Boulevard. The offsite area that contains Matthews Road and McLaughlin Road is bordered by a power plant at the southeast portion of the Project Site, non-native grasses, and weeds south of the road, and other commercial/industrial areas north of the road. This area is also primarily flat with a gentle slope to the west.

3.0 REGULATORY CONTEXT

The following is a list of the relevant federal, state, and local laws and regulations that apply to protecting plant communities, plants, wildlife, and water quality from impacts within the Project Site.

Agency/ Organization	Laws/Regulations	Notes
Federal	Clean Water Act (CWA) Section 404	Based on the latest Supreme Court ruling and the conclusions from the United States Army Corps of Engineers (USACE) that nearby drainage courses are not Waters of the United States (WOUS), the drainages onsite would not be considered WOUS. Therefore, a Section 404 Permit from the USACE is not required.
	Nationwide Permit (NWP) Section 404	Because no USACE jurisdiction is present, no 404 Permit from the USACE is required.
	CWA Section 401/Waste Discharge Requirements (WDR)	Jurisdictional Waters of the State (WOS) are present on the Project Site and will be impacted during Project activities; therefore, a Waste Discharge Requirement (WDR) permit from the Regional Water Quality Control Board (RWQCB) will be required. Because no WOUS are present, no 401 permit would be required.
	CWA Section 408	No facilities subject to Section 408 occur within the Project Site.
	Migratory Bird Treaty Act (MBTA)	Compliance with the MBTA will be achieved with pre-construction surveys for nesting birds within three (3) days prior to initiation of work within the nesting bird season.
	Endangered Species Act (ESA)	No federally listed species were observed within the Project Site during the 2023 surveys and the Project is covered under the MSHCP.
State	Section 1600 of the Fish and Game Code (FGC)	Jurisdictional WOS are present within the Project Site and will be impacted during Project activities. Therefore, a Section 1600 Streambed Alteration Agreement through the California Department of Fish and Wildlife (CDFW) will be required.
	Sections 3503, 3503.5, and 3513 of the FGC	These FGC sections offer protection of nesting birds, birds-of-prey, and migratory birds. Compliance will be maintained with a pre-construction survey for nesting birds (including birds-of-prey and migratory birds).
	Section 4150 of the FGC	Prohibits incidental or deliberate "take" of non-game mammals, including bats. No impacts to sensitive mammal species are anticipated as a part of Project implementation.

Agency/ Organization	Laws/Regulations	Notes
	Western Riverside Multiple Species Habitat Conservation Plan (MSHCP)	The Project is within the MSHCP boundary and will therefore need to comply with provisions and regulations set forth by the MSHCP. Section 7.0 of this Report includes an MSHCP Consistency Analysis. The Project is not located within a Criteria Cell, Public or Quasi Public Conserved Lands. The Project is within the following Survey Areas: Burrowing Owl and Narrow Endemic Plant Species. The Project is not located within or near any areas currently identified as or anticipated in the future as MSHCP conservation or as Criteria Cells. The Project will result in impacts to Riparian or Riverine Areas and will be subject to the Determination of Biologically Equivalent or Superior Preservation (DBESP) requirements of the MSHCP. This report documents consistency with the MSHCP.
Local Plans	Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan (HCP)	The Project is located within the SKR HCP; therefore, the Project will be required to comply with applicable provisions of the SKR HCP (which includes payment of a mitigation fee). During the biological assessment, no SKR individuals were observed, and the site provides low potential habitat for the species.
City of Menifee	City of Menifee Development Code Title 9, Article 4, Chapter 9.200	The purpose of this code is to protect trees, considered to be a valuable community resource, from indiscriminate cutting or removal, to ensure and enhance public health, safety and welfare through proper care, maintenance, and preservation of trees (City of Menifee n.d.). Such as landscaping, irrigation systems and tree preservation represent a substantial investment in and potential benefit to the community. Heritage trees such as those with certain characteristics (age, size, species, location, historical influence, aesthetic quality, or ecological value) are subject to special attention and preservation efforts. The Project will not impact any landscaped, parkway, or heritage trees; this chapter of the development code does not apply to the proposed project.

3.1 Impacts Terminology

Potential impacts to biological resources that could result from implementation of the proposed Project are discussed in each of the Vegetation, Wildlife, and Jurisdictional Waters sections presented in this report.

Biological resources may be either directly or indirectly impacted by a project. Furthermore, direct and indirect impacts may be either permanent or temporary in nature. These impact categories are defined below. These terms will be used throughout the document.

- Direct Impact: Any loss, alteration, disturbance, or destruction of biological resources that would result from project-related activities is a direct impact. Examples include vegetation clearing,

encroaching into wetlands, diverting natural surface water flows, and the loss of individual species and/or their habitats. Direct impacts are long-term.

- Indirect Impact: As a result of project-related activities, biological resources may also be affected in a manner that is not direct. Examples of indirect impacts include elevated noise, light, and dust levels, increased human activity, decreased water quality, erosion created by the removal of vegetation, and the introduction of invasive plants and unnatural predators (e.g., domestic cats and dogs). These indirect impacts may be both short-term and long-term in their extent.
- Permanent Impacts: All impacts that result in the long-term or irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent Rd on an area containing biological resources.
- Temporary Impacts: Any impacts considered to have reversible effects on biological resources can be viewed as temporary. Examples include the generation of fugitive dust during construction and removing vegetation but either allowing the natural vegetation to recolonize or actively revegetating the Project Site.

Under each section, potential impacts are discussed.

4.0 PLANTS

4.1 Literature Review

4.1.1 Sensitive Plant Communities

Sensitive plant communities (sensitive habitats) as defined below, are of limited distribution statewide or within a county or region and are often vulnerable to the environmental effects of projects. Sensitive habitats are often threatened with local extirpation and are therefore considered valuable biological resources. Plant communities are considered "sensitive" by the California Native Plant Society (CNPS) and CDFW if they meet any of the following criteria listed below:

- The habitat is recognized and considered sensitive by CDFW, United States Fish and Wildlife Service (USFWS), and/or special interest groups such as CNPS.
- The habitat is under the jurisdiction of the USACE pursuant to Section 404 of the CWA.
- The habitat is under the jurisdiction of the CDFW pursuant to Sections 1600 through 1612 of the FGC.
- The habitat is known or believed to be of high priority for inventory in the California Natural Diversity Database (CNDDB).
- The habitat is considered regionally rare.
- The habitat has undergone a large-scale reduction due to increased encroachment and development.
- The habitat supports special status plant and/or wildlife species (defined below).
- The habitat functions as an important corridor for wildlife movement.

The most current version of CDFW's List of California Sensitive Natural Communities indicates which natural communities are sensitive given the current state of the California classification (CDFW, 2023b).

4.1.2 Special Status Plants

Species of plants are afforded "special status" by federal agencies, state agencies, and/or non-governmental organizations (e.g., USFWS, CDFW, CNPS, MSHCP, and United States Forest Service [USFS]) because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as "special status" species. Plant species were considered "special status" species if they meet any of the following criteria:

- Taxa with official status under ESA, California Endangered Species Act (CESA), and/or the Native Plant Protection Act (NPPA).
- Taxa proposed for listing under ESA and/or CESA.
- Taxa identified as sensitive, unique or rare, by the USFWS, CDFW, USFS, MSHCP, and/or the Bureau of Land Management (BLM).

- Plants that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
  - Species considered by CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B and 2; CNPS, 2023). A majority of the CRPR 3 and CRPR 4 plant species generally do not qualify for protection under CESA and NPPA.
  - Species that may warrant consideration on the basis of local significance or recent biological information.
  - Some species included on the CNDDB Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2023c).
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances. Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Available literature and databases were reviewed regarding sensitive habitats and special status plant species. Special status plant species that have the potential to occur within the immediate region of the Project Site were identified. Several agencies, including the USFWS, CDFW, and CNPS publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Project Site and included the following sources listed below:

- The CNDDB, a CDFW species account database that inventories status and locations of rare plants and wildlife in California, was used to identify any sensitive plant communities and special status plants that may exist within a two-mile radius of the Project Site (Figure 5, *CNDDB Occurrences Map*) [CDFW, 2023a].
- Online CNPS Inventory of Rare and Endangered Plants of California (CNPS, 2023). A search for the United States Geological Survey (USGS) 7.5-Minute Topographic Map Romoland Quadrangle provided information regarding the distribution and habitats of special status vascular plants in the vicinity of the Project.
- A map of the USFWS Critical Habitat to determine species with Critical Habitat mapped in the general vicinity of the Project [USFWS, 2023a].
- The USFWS's Information for Planning and Consultation online tool, which identifies species and Critical Habitat under USFWS jurisdiction that are known or expected to be on or near the Project area (USFWS, 2023b).
- The RCA MSHCP Information Map online tool, which identifies Narrow Endemic Plant Survey Areas (Figure 11, *MSHCP Map*) [MSHCP, 2023].
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

As noted previously, species occurrence and distribution information are often based on documented occurrences where opportunistic surveys have taken place; therefore, a lack of records does not necessarily indicate that a given species is absent from the Impact Area.

4.2 Field Methodology

The general biological survey was conducted within the Project Site on June 26, 2023, by VCS biologists Wade Caffrey, Stephanie Fan, and Ian Slack. During the survey, VCS biologists walked the entirety of the Project Site paying special attention to those areas that could host sensitive vegetation communities or had the potential to provide suitable habitat for special status plant species. Plant species were identified using plant field and taxonomical guides, such as The Jepson Manual: Vascular Plants of California, second edition (Baldwin et al., 2012). All plant species encountered during the field survey were identified and recorded in field notes.

The vegetation communities and habitat conditions were inspected to confirm the presence and habitat quality of the vegetation found onsite. Where appropriate, descriptions of vegetation communities from the Manual of California Vegetation (Sawyer et al., 2009) were also utilized. Any deviations from standard vegetation classifications were made on best professional judgment when areas did not fit into a specific habitat description provided by the Manual. Vegetation communities were mapped using field observations and utilizing aerial imagery.

4.2.1 Rare Plant Survey

A focus plant survey was conducted on June 23, 2023, by plant biologist Jordan Zylstra. This survey was focused on the narrow endemic survey area bordering McCall Boulevard.

4.3 Results/Impacts

4.3.1 Vegetation Communities/Land Cover

Vegetation/land cover mapping and acreages for each vegetation community and land type within the Project Site can be found in Table 1 and Figure 7, *Vegetation Map*. Additionally, impacts to vegetation/land cover can be seen in Table 2. The majority of the vegetation within the Project Site is characterized by open, recently plowed fields with sparse vegetation. The second most abundant vegetation community is non-native weeds and vegetation with a sparse amount of native plant species. Other smaller vegetation and land cover types are ornamental trees, and native vegetation communities such as California buckwheat scrub and brittlebush scrub. Some areas, such as the ridgeline intersecting McCall Boulevard, contain these endemic vegetation communities.

Representative photographs of the Project Site are included as Appendix A and the locations that the photos were taken is shown in Figure 12, *Photolocation Map*. A total of 157 plant species were observed within the Project Site during the general biological assessment and are listed in Appendix B of this report.

Table 1. Vegetation Communities/Land Cover in Project Site

Vegetation Community/Land Cover Type	Project Site (acres)
Brittlebush Scrub	0.94
California Buckwheat Scrub	5.79
Disturbed/Developed	49.81
Non-native Weeds/Grasses	22.79
Ornamental	4.92
Total	84.25
*Total acreage does not add up to 84.23 acres equivalent to the Project Site due to rounding.	

Table 2. Vegetation Communities/Land Cover Impacts

Vegetation Community/Land Cover Type	Impacts (acres)
Brittlebush Scrub	0.73
California Buckwheat Scrub	2.10
Disturbed/Developed	31.97
Non-native Weeds/Grasses	5.24
Ornamental	1.71
Total	41.75
*Total acreage does not add up to 41.76 acres equivalent to the Project Site due to rounding	

4.3.1.1 Brittlebush Scrub- Encelia farinosa Shrubland Alliance

In brittlebush scrub, brittlebush *(Encelia farinosa*) is dominant in the vegetation community. Other plants such as black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), and California buckwheat (*Eriogonum fasciculatum*) are present amongst the brittle bush. This community is found primarily near the base of the granitic hill near McCall Boulevard, where the native scrub vegetation grows along the slope adjacent to the right-of-way.

4.3.1.2 California Buckwheat Scrub- Eriogonum fasciculatum Shrubland Alliance

California Buckwheat Scrub is dominated by California buckwheat, and other shrubs such as California sagebrush, brittlebush, and black sage are present. This community is found primarily near the base of the granitic hill near McCall Boulevard, where the native scrub vegetation grows along the slope of the adjacent right-of-way.

4.3.1.3 Disturbed/Developed

The majority of the Project Site is mapped as disturbed/developed land such as paved and dirt roads along the right-of-way of McCall Boulevard, Matthews Road, and McLaughlin Road. Multiple agricultural fields and open space areas adjacent to the offsite areas of the Project appear to be recently plowed. Developed

areas exist adjacent to most of the Project Site in the form of residential communities and commercial areas.

4.3.1.4 Disturbed Non-Native Herbs and Grasses

A large portion of the Project Site is mapped as non-native herbs and grasses. The Project Site has undergone historical disturbance and undergoes regular mowing and vegetation removal. This habitat is characterized by mostly non-native annual herbaceous species. Native species interspersed throughout this area included primarily common fiddleneck (*Amsinckia intermedia*). A majority of this area consisted of non-native species including brome grasses (*Bromus* sp.), London rocket (*Sisymbrium irio*), Russian thistle (*Salsola* sp.), cheeseweed mallow (*Malva parviflora*), slender oat (*Avena barbata*), and mustard (*Brassica* sp.).

4.3.1.5 Ornamental

Multiple areas of the Project Site are mapped as ornamental. These patches run parallel to the right-of-way of McCall Boulevard, Matthews Road, and McLaughlin Road within the Project Site. The ornamental species present include Chinaberry (*Melia azedarach*), crape myrtle (*Malca parviflora*), Aleppo pine (*Pinus halpensis),* Asiatic jasmine *(Trachelospermum asiaticum),* and yellow fortnight lily *(Dietes bicolor)* among others.

4.3.2 Sensitive Vegetation and Sensitive Vegetation Communities

4.3.2.1 Special Status Vegetation Communities

No special status vegetation communities were observed within the Project Site during the June and July 2023 general biological survey. Additionally, no sensitive vegetation communities occur within 2 miles of the Project Site according to CNDDB (Figure 5, *CNDDB Occurrences Map*). The Project Site contains mostly disturbed/developed land such as paved roads and dirt roads, followed by maintained open fields comprised mainly of disturbed lands and non-native herb and grasses, with smaller acreages of ornamental vegetation, as well as some native plant alliances. Potential impacts to vegetation communities due to implementation of the Project includes the direct permanent impacts of native vegetation communities within the Project Site (Table 2).

The impacts to disturbed/developed land, non-native grasses, ornamental trees would not be considered significant, as these vegetation communities are not sensitive communities identified in any local or regional plans, policies, regulations or by CDFW or USFWS.

No riparian habitat or other sensitive natural communities identified in local or regional plans are present within the Project Site. No impacts to sensitive natural communities will occur.

4.3.2.2 Sensitive Plant Species Occurring Onsite

The only rare plant found on the Project Site during the June and July 2023 general biological surveys was San Diego tarweed (*Deinandra paniculata),* with a CNPS rating of 4.2. The species was observed in a small area near the granitic hill to the north of McCall Boulevard, within the MSHCP Narrow Endemic Plant Survey Area, which has been subjected to regular disturbance. This plant is not state or federally listed. The plant biologist noted the disturbed nature of the Project Site which appeared to be recently plowed and was dominated by non-native vegetation. The San Diego tarweed rating of 4.2 indicates it is a lower ranking for risk and can be common where it does occur. Therefore, no mitigation is warranted for the limited impacts that may occur as a result of the Project.

4.3.2.3 Sensitive Plant Species with Potential to Occur

Sensitive plant species include federally, or state listed threatened or endangered species and those species listed on CNPS's rare and endangered plant inventory. Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions, and are listed in Appendix C of this report. In total, only one sensitive plant species was deemed to have at least "low-moderate" or higher potential of occurring on the Project Site, the San Diego tarweed (discussed above) which was "present" within the Project Site. In total, 19 plants were categorized as "absent" due to the highly disturbed nature of the Project Site as well as their lack of detection during the 2023 rare plant survey. No significant direct and/or indirect impacts to these other special status plants are anticipated with Project implementation and no mitigation is warranted.

San Diego tarweed has a limited distribution in California but is known to be fairly common where it does occur. It does not have a federal or state listing as a threatened or endangered species. Additionally, it has a low ranking for risk on both the CNDDB's Heritage Rankings and the CNPS Rare Plant Rankings. No mitigation will be required.

5.0 WILDLIFE

5.1 Literature Review

Species of wildlife are afforded "special status" by federal agencies, state agencies, and/or non-governmental organizations because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as "special status" species. Wildlife species were considered "special status" species if they meet any of the following criteria:

- Taxa with official status under ESA or CESA.
- Taxa proposed for listing under ESA and/or CESA.
- Taxa designated a species of special concern by CDFW.
- Taxa designated a state fully protected species by CDFW.
- Taxa identified as sensitive, unique, or rare, by USFWS, CDFW, USFS, and/or BLM.
- Taxa that meet the definition of rare or endangered under the CEQA §15380(b) and (d).
- Species considered locally significant; that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances. Examples include a species at the outer limits of its known range.

Special status wildlife species that have the potential to occur within the immediate region of the Project Site were identified. Several agencies, including the USFWS and CDFW publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Project Site and included the following sources listed below:

- The CNDDB was used to identify any special status wildlife that may exist within a two-mile radius of the Project Site (Figure 5, *CNDDB Occurrences Map*) [CDFW 2023a]. CNDDB records are generally used as a starting point when determining what special status species, if any, may occur in a particular area. However, these records may be old, lack data not yet entered, and do not represent all the special status species that could be in that particular area.
- A map of the USFWS Critical Habitat to determine species with Critical Habitat mapped in the general vicinity of the Project, but no Critical Habitat occurred within two miles of the Project Site [USFWS, 2023a].
- The USFWS's Information for Planning and Consultation online tool, which identifies species and Critical Habitat under USFWS jurisdiction that are known or expected to be on or near the Project area (USFWS, 2023b).
- The RCA MSHCP Information Map online tool, which identifies survey areas such as Amphibian, Burrowing Owl, Mammal Species, and Delhi Sand Flower-Loving Fly (*Rhaphiomidas terminatus*) Survey Areas (Figure 11, *MSHCP Map*) [MSHCP, 2023].
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the Project Site, as well as the surrounding area. Although the inventory list of special status wildlife species was not exhaustive of all species that might be of concern for the property, it provided a wide range of species that are representative of the wildland habitats in the area. Species occurrence and distribution information is often based on documented occurrences where opportunistic surveys have taken place; therefore, a lack of records does not necessarily indicate that a given species is absent from the Project Site.

5.2 Field Methodology

During the June and July 2023 general biological survey, biologists analyzed the Project Site for habitat areas that could be suitable for special status wildlife species. The location of the Project is within the general distributional range of several special status wildlife species. Many of the sensitive terrestrial wildlife species that could occur within the Impact Area are not subject to specific published survey protocols and/or are covered under the MSHCP.[1] The purpose of the June and July 2023 general biological assessment was to note those species observed, ascertain general site conditions, and identify habitat areas that could be suitable for special status wildlife species.

All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. Signs of wildlife species including wildlife tracks, burrows, nests, scat and remains, were also recorded. Binoculars were used to aid in the identification of observed wildlife and in areas not accessible on foot. Wildlife field guides and photographs were used to assist with identification of wildlife species during the field survey, as necessary. A one-day survey cannot always be used to conclusively determine presence or absence of a species; therefore, assessments of presence/absence and potential for occurrence were made based on presence of suitable habitat to support the species, diagnostic signs (burrows, scat, tracks, vocalizations, and nests), known records or occurrence within the area, known distribution and elevation range, and habitat utilization from the relevant literature.

5.2.1 Burrowing Owl Protocol Surveys

A burrowing owl habitat assessment and focused burrow surveys were performed by VCS biologists Wade Caffrey, Stephanie Fan, Ian Slack, and Jose Gonzalez throughout June and July 2023. Literature review of pertinent databases such as CNDDB was conducted prior to the 2023 burrowing owl habitat assessment of the Project Site. During the habitat assessment, somewhat suitable habitat was identified on the Project Site due to the presence of suitable burrows.

The survey instructions note the following steps to the MSHCP burrowing owl assessment:

- Step 1: Habitat Assessment
- Step 2: Locating Burrows and Burrowing Owls
  - Part A: Focused Burrow Survey
  - Part B: Focused Burrowing Owl Surveys (4 separate surveys)

[1] An MSHCP covered species is a species that is adequately conserved by MSHCP implementation. There are 146 covered species in the MSHCP, of which 40 species are identified that may require additional surveys. A Project receives "take" coverage for these covered species when it is determined to be consistent with the MSHCP requirements.

A burrowing owl (*Athene cunicularia*) [BUOW] habitat assessment, focused burrow survey, and the first BUOW focused survey (Step 1, Step 2/Part A, and the first survey of Step 2/Part B) were performed during the general biological survey on June 23, 2023, by VCS biologists Wade Caffrey, Stephanie Fan, Ian Slack, and Jose Gonzalez to assess whether potentially suitable habitat for BUOW, suitable burrows, or BUOW were present within the initial Project boundary and a 500-foot buffer (Figure 6, *Burrowing Owl Map*). Suitable habitat was observed, and three additional focused surveys were then performed on June 28, July 6, and July 12, 2023 (the remainder of Step 2/Part B). Conditions during the burrowing owl protocol surveys are detailed below in Table 3.

Table 3. Burrowing Owl 2023 Protocol Surveys

Survey	Date	Start	End	Temperature/Weather
1	06/23/2023	05:40 AM	08:30 AM	51-55°F, partly cloudy, 3-4 mph winds
2	06/28/2023	05:40 AM	08:15 AM	52-561°F, partly cloudy, 2-3 mph winds
3	07/06/2023	05:40 AM	07:55 AM	55-56°F, partly cloudy to cloudy, 2-3 mph winds
4	07/12/2023	05:37 AM	07:18 AM	54-73°F, sunny, 1-2 mph winds

Although some burrowing owl surveys concluded shortly after the prescribed two hours after sunrise methodology, the field survey methods were still considered followed for each of the four focused BUOW surveys and are consistent with the Burrowing *Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area* (County of Riverside 2006a). The areas with burrows and other suitable burrowing owl habitats were always visited at the beginning of the survey within two hours after sunrise, while general transects in areas not showing suitable burrows were walked towards the end of the survey to ensure the entirety of the Project Site was surveyed. Additionally, environmental and weather conditions during the time of surveys stayed favorable for burrowing owl detection longer than two hours after sunrise.

5.3 Results/Impacts

A total of 31 wildlife species or signs thereof were observed during the 2023 biological surveys. All wildlife species observed on the Project Site are listed in Appendix B.

5.3.1 Sensitive Wildlife Species with Potential to Occur

Sensitive wildlife species include the following classifications: federally or state listed threatened or endangered species, California species of special concern, MSHCP covered species and fully protected and protected species (as designated by CDFW). Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions.

A complete list of sensitive wildlife species analyzed with potential to occur within the Project Site is included in Appendix C.

Four special status species were determined to have at least a "low-moderate" potential or higher of occurring within the Project Site during the database review or were observed within the Project Site during surveys, the California horned lark, the coastal California gnatcatcher, Costa's hummingbird, and the western spadefoot toad. All other species in Appendix C were deemed to be of "low" potential of occurring onsite. California horned lark (*Eremophila alpestris actia*), a CDFW Watch List (WL) species and MSHCP covered species.

- Coastal California gnatcatcher (*Polioptila californica californica*), a USFWS threatened species, a CDFW bird of special concern, and an MSHCP covered species.
- Costa's hummingbird (*Calypte costae*), a USFWS BCC (Bird of Conservation Concern).
- Western spadefoot toad (*Spea hammondii),* a CDFW species of special concern, a USFWS species of concern and a MSHCP covered species.

California horned lark and Costa's hummingbird, noted above, were observed on the Project Site. California horned lark, coastal California gnatcatcher, and western spadefoot toad are covered under the MSHCP. Additionally, with implementation of Mitigation Measures and the BMPs in Section 9, impacts to these wildlife species are expected to be less than significant.

5.3.1.1 California Horned Lark

California horned larks are widespread songbirds of fields, deserts, and tundra, where they forage for seeds and insects, and sing a high, tinkling song. They favor bare, dry ground and areas of short, sparse vegetation and avoid places where grasses grow more than a couple of inches high. The nest site is selected on bare ground. This species was observed onsite, in the field to the east of the granitic hill on McCall Boulevard bordering Boulder Ridge Elementary School, during the biological surveys, and confirmed to be present. The Project Site provides suitable foraging and nesting habitat for the species.

5.3.1.2 Coastal California Gnatcatcher

The coastal California gnatcatcher is found on the coastal slopes of southern California, from southern Ventura southward through Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties into Baja California, Mexico. This gnatcatcher typically occurs in or near coastal sage scrub, a habitat characterized by relatively low growing, dry-season deciduous, and succulent plants. Characteristic plants of these communities include California sagebrush, California buckwheat, laurel sumac, lemonade berry, bush penstemon, and various species of sage (*Salvia* spp.). They are particularly known for their "meowing" calls. This species was not observed onsite; however, suitable habitat does exist for the species along McCall Boulevard near the brittle bush scrub and buckwheat scrub. Focus surveys are not required in the MSHCP, since this is a covered species under the MSHCP. Pre-construction nesting surveys for CAGN are required only if work begins in the nesting season.

5.3.1.3 Costa's Hummingbird

The Costa's hummingbird is a USFWS bird of conservation concern. The scrub and chaparral habitat found throughout the Project Site provides suitable habitat for this hummingbird species, and it was observed within the Project Site during surveys in 2023 along McCall Boulevard.

5.3.1.4 Western Spadefoot Toad

Western spadefoot toads is a species of USFWS and CDFW conservation concern. The species is often found in coastal sagescrub communities, rain pools, and other wetland features which may be present onsite. The species was mapped in 2012 during a previous survey on Matthews Road (Figure 5, *CNDDB Occurrences Map*).

5.3.2 Burrowing Owl Protocol Survey Results

Suitable burrows were found on the Project Site, mainly in a field near the roadway at the intersection of McCall Boulevard and Sherman Road (Figure 6, *Burrowing Owl Map*). Survey conditions are listed above in

Table 3. No burrowing owl or evidence of burrowing owl were observed during the surveys. Surveys were conducted and no owls were detected, therefore, no further action is warranted, except for a pre-construction survey. The Project is in compliance with Burrowing Owl Species Objective 5.

5.3.3 Critical Habitat

The USFWS's online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Project occurs within any species designated Critical Habitat. A two-mile radius was analyzed for presence of Critical Habitat and no Critical Habitat occurs on or adjacent to the Project Site.

5.3.4 Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Corridors effectively act as links between different populations of a species. An increase in a population's genetic variability is generally associated with an increase in a population's health.

Corridors mitigate the effects of habitat fragmentation by:

- Allowing wildlife to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity;
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and
- Serving as travel routes for individual wildlife species as they move within their home ranges in search of food, water, mates, and other needs (Fahrig and Merriam, 1985; Simberloff and Cox, 1987; Harris and Gallagher, 1989).

Wildlife movement activities usually fall into one of three movement categories:

- Dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions);
- Seasonal migration; and
- Movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

The Project Site is bordered by roads and urban development which will not be impacted. The Project Site may play a limited role in local wildlife dispersal and foraging; however, the site is not likely located within a significant wildlife movement corridor. Common wildlife species such as coyotes (*Canis latrans*), skunks (*Spilogale gracilis, Mephitis mephitis*), opossums (*Didelphis virginiana*), and raccoons (*Procyon lotor*) may travel through the site and neighboring developed areas for connectivity between larger open spaces, but the Project Site does not provide connectivity between large areas of open space on a local or regional scale. With implementation of Mitigation Measures and the BMPs in Section 9, impacts on wildlife are expected to be less than significant. General MSHCP compliance will allow for local wildlife movement to continue. The Project Site also does not contribute to wildlife corridors as outlined by Spencer et al. (2010)'s "California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California".

The movement of the Southern Californian population of mountain lion (Puma concolor), a candidate for State-listing as threatened, is not likely to be impacted by the Project Site.

5.3.5 Avian Nesting and Bat Roosts

A few ornamental trees are present on the Project Site. Additionally, the disturbed/maintained grassland fields may provide suitable nesting habitat for ground-nesting avian species. There is greater potential for avian nesting and bat roosting on the Project Site within the ornamental trees in the western portion of the Project Site on McCall Boulevard (on the southern portion of the road), and also adjacent to the Project Site in the silk oak (*Grevillea robusta*) and red gum eucalyptus trees (*Eucalyptus camaldulensis*) adjacent to Matthews Road. Biologists did not observe signs of nesting or roosting activity within the Project Site during the 2023 biological surveys.

As stated previously, birds and bats are protected by the Migratory Bird Treaty Act (MBTA) and Section 4150 of the California Fish and Game Code respectively. The Project Site is in compliance with both due to MM-BIO-2.

6.0 JURISDICTIONAL WATERS

6.1 Delineation Statement

6.1.1 Waters of the United States

The Survey Area was assessed for jurisdictional wetland and non-wetland Waters of the U.S. To determine the presence of a wetland, three indicators are required: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The methodology published in the USACE 1987 Wetland Delineation Manual, and the Arid West Supplement sets the standards for meeting each of the three indicators, which normally require that 50% or more dominant plant species typical of a wetland, soils exhibiting characteristics of saturation, and hydrological indicators be present.

Jurisdictional non-wetland Waters of the U.S. are typically determined through the observation of an Ordinary High Water Mark (OHWM), which is defined as the "line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." The following guidance documents were utilized in making this determination:

- Field Guide to OHWM Determinations in the Arid West (August 2008);
- Updated OHWM Datasheet for the Field Guide to OHWM Determinations in the Arid West (July 2010); and
- Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region (2011).

Projects with impacts to Waters of the U.S. are regulated under Sections 401 and 404 of the Clean Water Act and by connectivity with adjacent watersheds. Note, the RWQCB has updated their definition of a wetland to include areas that have hydric soils and wetland hydrology but lack hydric vegetation (e.g., vernal pools). This update took effect May 28, 2020.

Additionally, on May 25, 2023, the United States Supreme Court issued its decision in Sackett v. Environmental Protection Agency, narrowing the scope of federal jurisdiction over wetlands under the Clean Water Act to "relatively permanent bod[ies] of water connected to traditional interstate navigable waters); and second, that … have a continuous surface connection with that water" (*Sackett v. EPA*, No. 21–454 (2023)). The USACE and EPA have not yet issued guidelines for how they will interpret this updated Definition of Waters of the United States; however, it is anticipated that the waters onsite, all of which are ephemeral and do not have a continuous surface connection, will no longer be considered WOUS.

6.1.2 Waters of the State

The Survey area was also assessed for jurisdictional streambed and riparian Waters of the State (WOS). The CDFW and the RWQCB take jurisdiction over Waters of the State and Riparian/Riverine resources (California Fish and Game Code §§1600 et seq.; California Code of Regulations, Title 14, §720). Section 1602 of the California Fish and Game Code applies to natural rivers, streams, and lakes:

> *"An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake."*

CDFW defines a stream as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators". CDFW regulates wetland areas only to the extent that those wetlands are part of a stream, river, or lake as defined by the CDFW.

CDFW jurisdiction includes ephemeral, intermittent and perennial watercourses and extends to the top of the bank of a stream or lake if unvegetated, or to the limit of the adjacent riparian habitat located contiguous to the watercourse if the stream or lake is vegetated.

6.2 Literature Review

The following sources were reviewed to determine the potential presence or absence of jurisdictional streams/drainages, wetlands, lakes, and their location within the watersheds associated with the Project Site, and other features that might contribute to federal or state jurisdictional authority located within watersheds associated with the Project Site:

- National Wetlands Inventory (NWI) maps (USFWS, 2023c). The NWI database indicates potential wetland areas based on changes in vegetation patterns as observed from satellite imagery. This database is used as a preliminary indicator of wetland habitats because the satellite data are not precise;
- USGS National Hydrography Dataset. Provides the locations of "blue-line" streams as mapped on 7.5-Minute Topographic Map coverage;
- Aerial Imagery (Google 2023 and Historic 2023);
- USGS 7.5-Minute Topographic Maps; and
- Natural Resource Conservation Service (NRCS) Soil Survey.

6.3 Field Methodology

During the June and July 2023 general biological survey, VCS biologists assessed the presence or absence of potential jurisdictional streams/drainages on the Project Site. Accessible areas of the Survey Area were walked and jurisdictional features, including their approximate location, length, width, and associated vegetation, were recorded using ESRI ArcCollector on an iPhone.

6.4 Mapping Techniques

Prior to the field surveys, Google Earth, and the National Wetlands Inventory (NWI) Online Mapper were used to review aerials of the Survey Area and identify any potential jurisdictional Waters of the U.S. features. Following the field surveys, ESRI ArcMap and Google Earth were used in combination with the field survey results to delineate and map relevant habitats and jurisdictional waters. The resulting Geographic Information System (GIS) data was then used to quantify the extent of each feature.

6.4.1 Jurisdictional Waters

Waters of the State were mapped on the Project Site totaling 0.27 acres of disturbed ephemeral streambed. Of the 0.27 acres deemed WOS, 0.08 acres will be impacted (Figure 8; *Waters of the State Map*). The majority of streambeds documented in the Project Site run parallel across both McCall Boulevard and Matthews Road respectively and also flow into the impact areas of the site. These streambeds are deemed

Waters of the State. Therefore, CDFW 1600 permits, and Waste Discharge Requirements (WDR) will be necessary in further development. As drainage features 1-5 have been mentioned in previous biological reports prepared by Rocks Biological Consulting for the Menifee Valley Project, our newly reported drainage features start their numbering at 6. Feature 4 described below is connected to the previously identified feature 4 by Rock's Biological Consulting. Features are listed below:

- Feature 4**:** is a single small, concrete lined ephemeral feature which flows southward and is perpendicular to Matthews Road (labeled B). This drainage complex has a width of 1 foot and length of 151 feet and contains streambed Waters of the State. This drainage feature is a part of feature 4 that was previously identified by Rocks Biological Consulting.
- Feature 6**:** is a large, earthen ephemeral feature running parallel to Matthews Road flowing westward. It contains four ephemeral features (labeled A-D) and leads to a culvert towards the northwest on Matthews Road. This drainage complex has a width of 2 to 3 feet and length of 2818 feet and contains streambed Waters of the State.
- Feature 7: is a single small, concrete lined ephemeral feature which flows southwards and is perpendicular to Matthews Road. This drainage complex has a width of 1 foot and length of 101 feet and contains streambed Waters of the State.
- Feature 8: is a single large, earthen ephemeral feature. It is parallel to McCall Boulevard and flows to the west and ultimately southwest of the Project Site. This drainage complex has a width of 2 to 4 feet and length of 717 feet and contains streambed Waters of the State.
- Feature 9: is a single large, earthen ephemeral feature. It is parallel to McCall Boulevard and flows to the west. This drainage complex has a width of 3 to 5 feet and length of 343 feet and contains streambed Waters of the State.

Table 4. Jurisdictional Features on the Project Site and Impacts

Jurisdictional Feature	Waters (acres)	Impacts (acres)
Streambed WOS/MSHCP Riverine	0.27	0.08
Total	**0.27**	**0.08**

6.4.2 MSHCP Riparian/Riverine Areas and Vernal Pools

To determine the areas where "Riparian/Riverine Areas and Vernal Pools" are present, VCS biologists, during the June 2023 general biological survey, walked the entire site and reviewed historical aerial imagery.

Based on the collective results of these investigations, there was evidence of riverine resources subject to the MSHCP on the Project Site totaling 0.27 acres, with 0.08 acres of impacts to these resources (Table 4).

Additionally, no vernal pools or seasonal depressions were observed within the Project Site. There was no evidence of ponding water, such as visible surface water, cracked soils, or hydric soils, and no features were identified onsite where water might collect and persist, like road ruts or other closed depressions. The soil on the Project Site is classified as a well-draining, sandy loam or silt loam.

6.4.3 National Wetland Inventory

The USFWS is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. The USFWS has developed a series of maps, known as the National Wetland Inventory (NWI) to show wetlands and deepwater habitat. This geospatial information is used by federal, state, and local agencies, academic institutions, and private industry for management, research, policy development, education, and planning activities. The NWI program was neither designed nor intended to produce legal or regulatory products; therefore, wetlands identified by the NWI program are not the same as wetlands defined by the USACE. Multiple aquatic features are mapped within the Project Site according to the USFWS's National Wetland Inventory (NWI) (USFWS [2023c]) (Figure 9, *NWI Map*).

The NWI is used as a reference and any features from the NWI were confirmed via field surveys. The NWI can be based on historical aerials and information, and due to recent development in the Project Site, a number of features in the NWI were not present during recent field surveys. Analysis of the multiple features identified in NWI is described below. The numbering system for NWI Features is separate than features delineated in 6.4.1 in this report as well as the numbering system from previous Rocks Biological Consulting reports:

- NWI Feature 1: is a freshwater emergent wetland which lies just west of Matthews Road near where Matthews Road meets Pinacate Road. It drains to the west. This feature was observed during field surveys and is mapped as Feature 5.
- NWI Feature 2: is a freshwater pond which lies just east of Matthews Road (near where Matthews Road meets McLaughlin Road and extends onto the Project Site). It drains to the south. This feature was not observed during field surveys, and instead, the area is dry and consists of disturbed land adjacent to B.P. John Recycling facility.
- NWI Feature 3: is a riverine feature which consists of two riverine features that generally flow to the west where they converge near Via Real before ending at Avenida Hadalgo in the west. The eastern riverine feature begins near the residential development near Oakhurst Avenue and the western riverine feature is located in the residential development near Hillpointe Drive. This feature was not observed during field surveys and is presumed to have been permanently removed due to the construction of a recent residential development.
- NWI Feature 4: is a freshwater pond which lies on Maywood Bend Drive that is connected to NWI Feature 3. This feature was not observed during field surveys and is presumed to have been permanently removed due to the construction of a recent residential development.
- NWI Feature 5: is a freshwater pond which lies at the intersection of McCall Boulevard and Junipero Road. This feature was not observed during field surveys, and instead, this area was dry and covered by non-native brush.

6.4.4 Hydrology

Multiple drainages were observed within the Project Site. The Project Site is generally flat, with a general slope to the west in most areas. Towards the eastern portion of McCall Boulevard, there is a large ridgeline that intersects the road which causes a divide where land on the west of the ridge will have water flowing to the west and land on the east of the ridge flowing east instead. All drainage features observed in the Project Site consist of disturbed ephemeral streambed and are considered streambed WOS; no wetlands or riparian drainage courses were observed. Additionally, multiple drains and culverts are mapped along the right-of-way that fall within the Project Site boundary.

6.4.5 Soils

The United States Department of Agriculture NRCS (NRCS, 2023) identifies 24 soil types present within the Project Site as described below and depicted on Figure 10, *Soil Map*.

- Buchenau silt loam, 2-8% slopes, eroded (BkC2): The Buchenau series have very dark gray, moderately alkaline, calcareous medium textured A horizons, and grayish brown, moderately alkaline and calcareous, medium to moderately fine B2 horizons that overlie a strongly lime cemented hardpan at moderate depth.
- Cajalco rocky fine sandy loam, 15-50% slopes, eroded (CbF2): The Cajalco soils are well drained, moderately permeable and occur on gently sloping to steep uplands in areas of deeply weathered, basic igneous rocks.
- Cieneba rocky sandy loam, 15-50% slopes, eroded (CkF2): The Cieneba series consists of somewhat excessively drained soils on uplands. These soils formed in course-grained igneous rock. Slopes range from 5 to 50%. These soils formed in coarse-grained igneous rock. Vegetation typically associated with the Cieneba soils includes annual grasses, chamise, and flat-top buckwheat.
- Escondido fine sandy loam, 8-15% slopes, eroded (EcD2): Typically, Escondido soils have dark brown slightly acid very fine sandy loam A horizons and neutral very fine sandy loam B2 horizons over hard metamorphic bedrock at depths of about 29 inches.
- Exeter sandy loam, 0-2% slopes (EnA): The Exeter series consists of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. Exeter soils are on alluvial fans and stream terraces and have slopes of 0 to 9%.
- Exeter sandy loam, 2-8% slopes (EnC2): The Exeter series consists of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. Exeter soils are on alluvial fans and stream terraces and have slopes of 0 to 9%.
- Exeter sandy loam, deep, 2-8%, eroded (EpC2): The Exeter series consists of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. Exeter soils are on alluvial fans and stream terraces and have slopes of 0 to 9%.
- Exeter very fine sandy loam, 0-5% slopes (EwB): The Exeter series consists of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. Exeter soils are on alluvial fans and stream terraces and have slopes of 0 to 9%.
- Exeter very fine sandy loam, deep, 0-5% slopes (EyB): The Exeter series consists of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. Exeter soils are on alluvial fans and stream terraces and have slopes of 0 to 9%.
- Fallbrook rocky sandy loam, shallow, 15-50% slopes, eroded (FcF2): The Fallbrook series consists of deep, well drained soils that formed in material weathered from granitic rocks. Fallbrook soils are on rolling hills and have slopes of 5 to 75%.
- Garretson gravelly very fine sandy loam, 2-8% slopes (GdC): The Garretson series is a member of the fine-loamy, mixed, nonacid, thermic family of Typic Xerorthents. Typically, Garretson soils have brown and yellowish brown, slightly acid, gravelly very fine sandy loam and gravelly loam A horizons and yellowish brown, brown and grayish brown, slightly acid and neutral, gravelly loam C horizons.

- Greenfield sandy loam, 2-8% slopes, eroded (GyC2): The Greenfield series consists of deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. Greenfield soils are on alluvial fans and terraces and have slopes of 0 to 30%.
- Hanford coarse sandy loam, 2-8% slopes (HcC): The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains and alluvial fans and have slopes of 0 to 15%.
- Honcut sandy loam, 2-8% slopes (HnC): The Honcut series consists of very deep, well drained soils that formed in moderately coarse textured alluvium from basic igneous and granitic rocks. Honcut soils are on floodplains and moderately sloping alluvial fans and have slopes of 0 to 9%.
- Honcut loam, 2-8% slopes, eroded (HuC2): The Honcut series consists of very deep, well drained soils that formed in moderately coarse textured alluvium from basic igneous and granitic rocks. Honcut soils are on floodplains and moderately sloping alluvial fans and have slopes of 0 to 9%.
- Lodo rocky loam, 25-50% slopes, eroded (LpF2): The Lodo series consists of shallow, somewhat excessively drained soils that formed in material weathered from hard shale and fine-grained sandstone. Lodo soils are on uplands and have slopes of 5 to 75%.
- Monserate sandy loam, 0-5% slopes (MmB): The Monserate series is a member of the fine-loamy, mixed, thermic family of Typic Durixeralfs. Typically, Monserate soils have brown and yellowish red, slightly acid, sandy loam A horizons, reddish brown, neutral, sandy clay loam B2t horizons underlain by silica-cemented duripans.
- Monserate sandy loam, shallow, 5-15% slopes, eroded (MnD2): The Monserate series is a member of the fine-loamy, mixed, thermic family of Typic Durixeralfs. Typically, Monserate soils have brown and yellowish red, slightly acid, sandy loam A horizons, reddish brown, neutral, sandy clay loam B2t horizons underlain by silica-cemented duripans.
- Porterville clay, 0-8% slopes (PoC): The Porterville series consists of deep, well drained soils that formed in fine textured alluvial material from basic and metabasic igneous rock. Porterville soils are on fans and foothills and have slopes of 0 to 15%.
- Porterville clay, moderately deep, 2-8% slopes (PsC): The Porterville series consists of deep, well drained soils that formed in fine textured alluvial material from basic and metabasic igneous rock. Porterville soils are on fans and foothills and have slopes of 0 to 15%.
- Ramona sandy loam, 2-5% slopes, eroded (RaB2): The Ramona series is a member of the fine-loamy, mixed, thermic family of Typic Haploxeralfs. Typically, Ramona soils have brown, slightly and medium acid, sandy loam and fine sandy loam A horizons, reddish brown, and yellowish red, slightly acid, sandy clay loam B2t horizons, and strong brown, neutral, fine sandy loam C horizons.
- Wyman loam, 2-8% slopes, eroded (WyC2): The Wyman series consists of deep, well drained soils that formed in alluvium from andesitic and basaltic rocks. Wyman soils are on nearly level to strongly sloping terraces and alluvial fans and have slopes of 0 to 15%.
- Ysidora gravelly very fine sandy loam, 2-8% slopes, eroded (YsC2): The Ysidora series is a member of a fine loamy, mixed, thermic family of Haplic Durixeralfs. The soils have brown, medium textured, gravelly, medium acid surface horizons, reddish brown, moderately fine textured, very gravelly, slightly acid argillic horizons, and weakly cemented, very gravelly duripans.

- Ysidora gravelly very fine sandy loam, 8-25% slopes, severely eroded (YsE3): The Ysidora series is a member of a fine loamy, mixed, thermic family of Haplic Durixeralfs. The soils have brown, medium textured, gravelly, medium acid surface horizons, reddish brown, moderately fine textured, very gravelly, slightly acid argillic horizons, and weakly cemented, very gravelly duripans.

7.0 MSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the proposed Project with respect to compliance with biological aspects of the Western Riverside County MSHCP. The following information is provided relating the Project Site to geographic areas of the MSHCP that are relevant to reserve assembly and planning (Figure 11, *MSHCP Map*). This information will form the basis of the consistency analysis for the Project.

Section 6 of the MSHCP states that all Projects must be reviewed for compliance with plan policies pertaining to Riparian/Riverine resources, criteria resources, Narrow Endemic Plant Species, urban/ wildlands interface, and additional survey needs as applicable.

Land cover types present within the Project Site and permanent impacts to land cover types were previously described in Section 4.3 of this Biological Technical Report.

7.1 Reserve Assembly Analysis

The Project is located within the San Jacinto Valley Area Plan of the MSHCP within the San Jacinto Habitat Management Unit. The Project Site is not located within an MSHCP Criteria Cell or Cell Group. As such, the Project is not subject to the Joint Project Review (JPR) or Habitat Acquisition and Negotiation (HANS) processes.

7.2 Project Area in Relation to MSHCP

7.2.1 Public Quasi-Public Lands

The Project is not located on Public Quasi-Public (PQP) lands. The Project will not directly or indirectly impact PQP lands.

7.2.2 Covered Roads

Multiple Covered Roads and Secondary Roadways exist within the Project Site. All roads are documented in Figure 11, *MSHCP Map*. McCall Boulevard is an urban arterial covered road and therefore, all of the Project Site bordering this road is part of the MSHCP covered road designation. Multiple major Covered Roads intersect McCall Boulevard such as Encanto Drive, Sherman Road, and Antelope Road. Menifee Road, which runs north to south and sets the eastern limit of the offsite areas, is also an urban arterial covered road. Secondary Roads of the Project Site include Palomar Road which stretches from Route 74 and intersects Matthews Road, McLaughlin Road, and portions of Antelope Road (before it intersects with Rouse Road), and Rouse Road before it dead ends into Via Santa Caterina. Sherman Road, before it dead ends into Rouse Road, is also a major covered road. Route 74 (CA-74) is classified as an expressway covered road. The proposed Project limits, specifically the road widths, are consistent with the Covered Road dimensions outlined in the MSHCP, therefore, no changes to the Covered Road dimensions would be warranted for the Project.

7.2.3 Urban/Wildlands Interface (Section 6.1.4)

The MSHCP recognizes that future development in proximity to existing or proposed MSHCP Conservation Areas might result in indirect edge effect conditions that will adversely affect biological resources within the MSHCP Conservation Area. For the purpose of this analysis, proximity to an MSHCP Conservation Area is generally considered to be within 1,000 feet unless other circumstances exist that would warrant considering distances further than 1,000 feet as proximate, such as a local connection via a drainage course.

The MSHCP provides guidelines to address the indirect effects of urban/wildlands interfaces, as outlined in Section 6.1.4 of the MSHCP, including conditions relating to drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development.

The proposed Project is not located within or in proximity to a Conservation Area, which includes PQP lands. Thus, guidelines to address the indirect effects of urban/wildlands interfaces as presented in Section 6.1.4 are not relevant to the Project.

7.3 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)

The proposed Project Site was assessed for MSHCP Section 6.1.2 resources, including riparian/riverine resources, vernal pools, fairy shrimp, and riparian birds.

7.3.1 Riparian/Riverine

7.3.1.1 Existing Conditions and Results

As detailed above, the Project Site contains MSHCP riverine resources which will be impacted (Table 4). The Project will be consistent with MSHCP requirements regarding impacts on riverine resources and a Determination of Biologically Equivalent or Superior Preservation (DBESP) will be prepared which will be subject to the City's approval.

7.3.2 Vernal Pools and Fairy Shrimp

As detailed above, the Project Site does not contain any MSHCP vernal pool or fairy shrimp resources (i.e. suitable depressions or road ruts) and therefore no impacts will occur as stated in Section 6.3.5. Previous biological surveys conducted in 2022 also did not find any vernal pool resources or suitable depressions for fairy shrimp (*Branchinecta lindahli*) (Rocks Biological Consulting 2022).

7.3.3 Riparian Birds

The MSHCP lists five bird species for protection based off association with riparian/riverine and vernal pool habitats. These species include bald eagle (*Haliaeetus leucocephalus*), least Bell's vireo (*Vireo bellii pusillus*), peregrine falcon (*Falco peregrinus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). No riparian riverine or vernal pool resources occur onsite, only disturbed ephemeral streambed with little to no riparian vegetation; therefore, an assessment of riparian bird habitat is not required, and no impacts to these species are anticipated to occur. No suitable nesting or foraging habitat for MSHCP covered riparian birds is present on the Project Site. No direct impacts to riparian habitat or riparian birds will occur. No indirect impacts (noise, dust, etc.) to MSHCP riparian birds are anticipated as a result of the proposed Project with the implementation of the pre-construction nesting bird measure outlined in Section 8 of this report. No changes in hydrology are anticipated as a part of Project implementation, and therefore it is not considered a potential indirect effect.

7.4 Protection of Narrow Endemic Plant Species (Section 6.1.3)

A portion of the Project Site along the western portion of McCall Boulevard occurs within a Narrow Endemic Plant Survey Area for the plant species Munz's 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*)

(Figure 11, *MSHCP Information Map*). Projects that are within the MSHCP Narrow Endemic Plant Survey Area are subject to the MSHCP survey requirements. No Narrow Endemic plant species were observed on the Project Site during the 2023 rare plant surveys; therefore, no mitigation is required.

7.4.1 Results

As stated above in Sections 4.3.2.2 and 4.3.2.3, no narrow endemic plant species were observed on the Project Site during the 2023 rare plant surveys.

7.4.2 Impacts

No Narrow Endemic plant species were observed on the Project Site during the 2023 rare plant surveys; therefore, no impacts will occur.

7.4.3 Mitigation

No Narrow Endemic plant species were observed on the Project Site during the 2023 rare plant surveys; therefore, no impacts will occur, and no mitigation is required.

7.4.4 Burrowing Owl

The Project Site falls within the MSHCP Burrowing Owl Survey Area. Projects that are within the MSHCP Burrowing Owl Survey Area are subject to the MSHCP burrowing owl survey requirements which are detailed above in Section 5.2.1.

7.4.4.1 Results

As stated above in Section 5.3.2, no burrowing owl or evidence of burrowing owl were observed during the 2023 focus burrowing owl surveys.

7.4.4.2 Impacts

No burrowing owls were observed on the Project Site during the 2023 focus burrowing owl surveys. No impacts are anticipated.

7.4.4.3 Mitigation

No burrowing owls were observed on the Project Site during the 2023 focus burrowing owl surveys. No impacts are anticipated; however, standard avoidance measures are proposed through MM BIO-2 detailed in Section 9.2.

7.5 Information on Other Species

7.5.1 Delhi Sands Flower-Loving Fly

Delhi soil types are not mapped within the proposed Project Site and, therefore, no surveys are required for the Delhi sands flower-loving fly.

7.6 MSHCP Consistency Determination

The Project would be consistent with the MSHCP based on the analysis and determinations made in this Section 7.0. The Project is not located within or near an MSHCP Criteria Cell, Cell Group, or PQP land. The Project Site does contain MSHCP Section 6.1.2 riverine resources, therefore, a Determination of Equivalent or Superior Preservation (DBESP) mitigation is required. However, there were no riparian resources or

evidence of ponding water and vernal pools, and presence of sensitive vegetation communities. No Narrow Endemic Plant species were observed within the Project. There were four sensitive wildlife species, with at least a "low-moderate" potential to occur or were observed on the Project Site. All other species listed in appendix C had a low potential to occur. The California horned lark, coastal California gnatcatcher, western spadefoot toad, and burrowing owl are covered by the MSHCP. The Project is located within an MSHCP Burrowing Owl overlay; however, no burrowing owl were observed during the burrowing owl focus surveys. Pre-construction surveys will be implemented to ensure avoidance of impacts to the burrowing owl. Based on the analysis above, the Project is consistent with Sections 6.1.2, 6.1.3, and 6.3.2 of the MSHCP. The Project would be required to pay all applicable MSHCP development impact fees. On February 17, 2022 the Stephen's kangaroo rat (SKR) was reclassified by the USFWS from endangered to threatened under the Endangered Species Act (ESA). Stephens' Kangaroo Rat Habitat Conservation Plan of the Riverside County Ordinance 663.10 requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92. During the biological assessment, no SKR individuals were observed. Additionally, The SKR habitat conservation plan does not require dedicated surveys in this area. The site provides low potential habitat for the species. With the payment of fees, the Project will not conflict with SKR HCP (See MM-BIO 4 for fee information).

The Project does not fall within the MSHCP Criteria Area Species Survey Area (CASSA) for plants, mammal survey areas, Delhi Sands flower-loving fly, or amphibian survey areas, and no suitable habitat for sensitive riparian bird species is present on the Project Site. Therefore, no surveys were needed for these taxonomic groups.

8.0 CUMULATIVE IMPACTS

Cumulative impacts are defined as the direct and indirect effects of a proposed Project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered significant. “Related projects” refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed Project. CEQA deems a cumulative impact analysis to be adequate if a list of “related projects” is included in the EIR or the proposed Project is consistent with an adopted general, specific, master, or comparable programmatic plan [Section 15130(b)(1)(B)]. CEQA also states that no further cumulative impact analysis is necessary for impacts of a proposed Project consistent with an adopted general, specific, master, or comparable programmatic plan [Section 15130(d)].

The MSHCP was developed to address the comprehensive regional planning effort and anticipated growth in the County of Riverside. Additionally, the MSHCP has set aside areas for conservation in order to address the cumulative impact of development within Riverside County. The Project is consistent with the MSHCP, SKR HCP, and the City’s General Plan, therefore, the Project’s cumulative impacts would not be considered significant.

All listed mitigation measures in the subsequent section, acting in unison, are deemed as sufficient in preventing any cumulative impacts to the Project Site (MM-BIO 1-6).

9.0 BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES

9.1 Best Management Practices

Implementation of general Best Management Practices (BMPs) are recommended to the extent practical. Key aspects of the BMPs are to clearly delineate the limits of disturbance, use properly maintained equipment, develop procedures for minimizing the likelihood of spills and to control sediment, ensure worker safety, and minimize impacts to biological resources on and adjacent to the Project Site. The following Project design features are recommended:

- Work area limits will be clearly defined and visible. All construction boundaries will be marked with flagging, staking, or fencing.
- All vehicles and equipment will be in proper working condition and will be checked regularly for leaks prior to use to ensure that there is no potential for fugitive emissions of motor oil, fuel, antifreeze, hydraulic fluid, grease, or other hazardous materials.
- Any litter or rubbish will be collected and disposed of in appropriate containers with lids to avoid attracting wildlife species to the Project Site.
- Dust control measures, such as watering trucks, shall be implemented during construction to reduce the impact of fugitive dust on the adjacent habitats.

The MSHCP Volume 1, Appendix C, outlines standard BMPs which are intended in part to reduce impacts to plant communities, special status plant and wildlife species, and jurisdictional waters. Since the Project Site is located within the MSHCP boundary, the Project will be required to comply with the standard BMPs found in Appendix C of the MSHCP. The Project will comply with the following, as applicable, which are based on the standard MSHCP BMPs:

- A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for Project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the ESA and the MSHCP, the need to adhere to the provisions of the ESA and the MSHCP, the penalties associated with violating the provisions of the ESA, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and Project Site boundaries within which the Project activities must be accomplished.
- Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
- The Site of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
- The upstream and downstream limits of Project disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field, in a manner appropriate to the field conditions, and reviewed by the biologist prior to initiation of work. [Note: the limits are meant to protect onsite and offsite avoided drainages and habitats].
- Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.

- Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian species identified in MSHCP Global Species Objective No. 7.
- When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing of other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments offsite. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from re-entering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.
- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, CDFW, and RWQCB, and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
- The qualified Project biologist shall monitor vegetation clearing to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the Project Site.
- The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- To avoid attracting predators of the species of concern, the Project Site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed Project Site and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the Project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen or other appropriate material. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
- The Permittee shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with Project approval conditions including these BMPs.

9.2 Mitigation Measures

Mitigation measures detailed below are consistent with previous mitigation measures for both the Menifee Valley Project and Menifee Valley Project Offsite Improvements Biological Resources and MSHCP Consistency Reports. Some updates to mitigation measures were made to reflect current fee schedules and the court case ruling in Sackett v. EPA.

MM BIO-1: Implementation of the offsite improvements' footprint will require payment of MSHCP 'Local Development Mitigation Fees.' Based on the local development mitigation fee schedule for fiscal year 2023 (effective July 1, 2023), fees for residential density less than 8.0 dwelling units per acre would be $4,236 per dwelling unit and fees for commercial and/or industrial development would be $19,066 per acre (Western Riverside County RCA 2023). The 'Local Development Mitigation Fees' are subject to change following each fiscal year. As such, the applicant shall refer to the updated fee amounts once the schedule for Project construction is finalized.

MM BIO-2: To ensure compliance with California Fish and Game Code sections 3503, 3503.5, and 3513 and to avoid potential impacts to nesting birds, vegetation clearing, and ground-disturbing activities shall be conducted outside of the bird nesting season (generally February 1 to August 31). If avoidance of the nesting season is not feasible, then a qualified biologist will conduct a nesting bird survey within three days prior to any disturbance of the site, including but not limited to vegetation clearing, disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests depending on the level of activity within the buffer and species observed, and the buffer areas shall be avoided until the nests are no longer occupied, and the juvenile birds can survive independently from the nests. During construction activities, the qualified biologist shall continue biological monitoring activities at a frequency recommended by the qualified biologist using their best professional judgment. If nesting birds are documented, avoidance and minimization measures may be adjusted, and construction activities stopped or redirected by the qualified biologist using their best professional judgement to avoid Take of nesting birds.

MM BIO-3: A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 30 days prior to site disturbance. If burrowing owls are documented on site, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, as specified in the MSHCP.

MM BIO-4: The Project applicant shall pay the fees pursuant to County Ordinance 663.10 for the SKR HCP Fee Assessment Area as established and implemented by the County of Riverside. The mitigation fee is $500 per gross acre of the parcels proposed for development. However, for single-family residential development wherein all lots within the development are greater than one-half (1/2) acre in size, the mitigation fee is $250 per residential unit (Riverside County Habitat Conservation Authority 2023).

MM BIO-5: Prior to any ground-disturbing activity near jurisdictional aquatic resources, applicable permits shall be obtained through the RWQCB and the CDFW for impacts on jurisdictional aquatic resources. The Applicant shall implement/comply with all permit conditions and mitigation measures required by the resource agencies. Proof shall be provided to the City of Menifee Community Development Department that applicable permits have been

obtained through the Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW) and that permit conditions/mitigation has been fully satisfied.

The proposed compensatory mitigation strategy is the purchase of rehabilitation credits at a 1.5:1 mitigation ratio (0.12-acre RWQCB/0.12-acre CDFW) from the Riverpark Mitigation Bank. The proposed mitigation strategy will prioritize in-kind and in-watershed options per the regulatory agencies' preferences. The regulatory agencies will make the final determination regarding compensatory mitigation requirements during the permit evaluation process.

MM BIO-6: In order to comply with City of Menifee Development Code Title 9, Article 4, Chapter 9.200, VCS recommends the hiring of an arborist to survey for heritage trees within the Project Site prior to construction. If no heritage trees are found within the Project Site by the arborist, construction may begin uninterrupted. If heritage trees are found within the Project Site, appropriate permitting will be obtained, and trees will be avoided during ensuing construction. During construction, care should be made to avoid general damages to trees; both ornamental and native.

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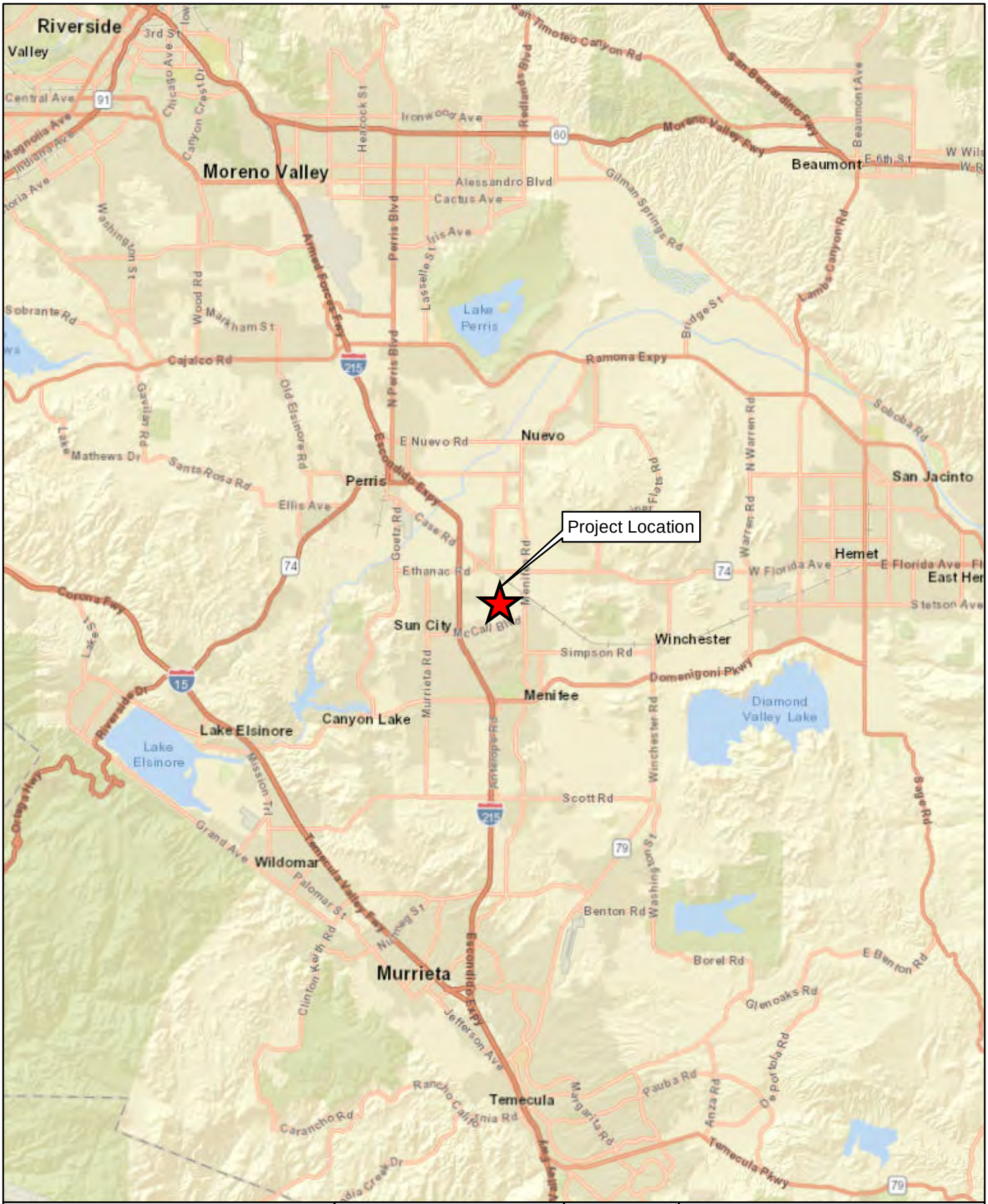
Figures



Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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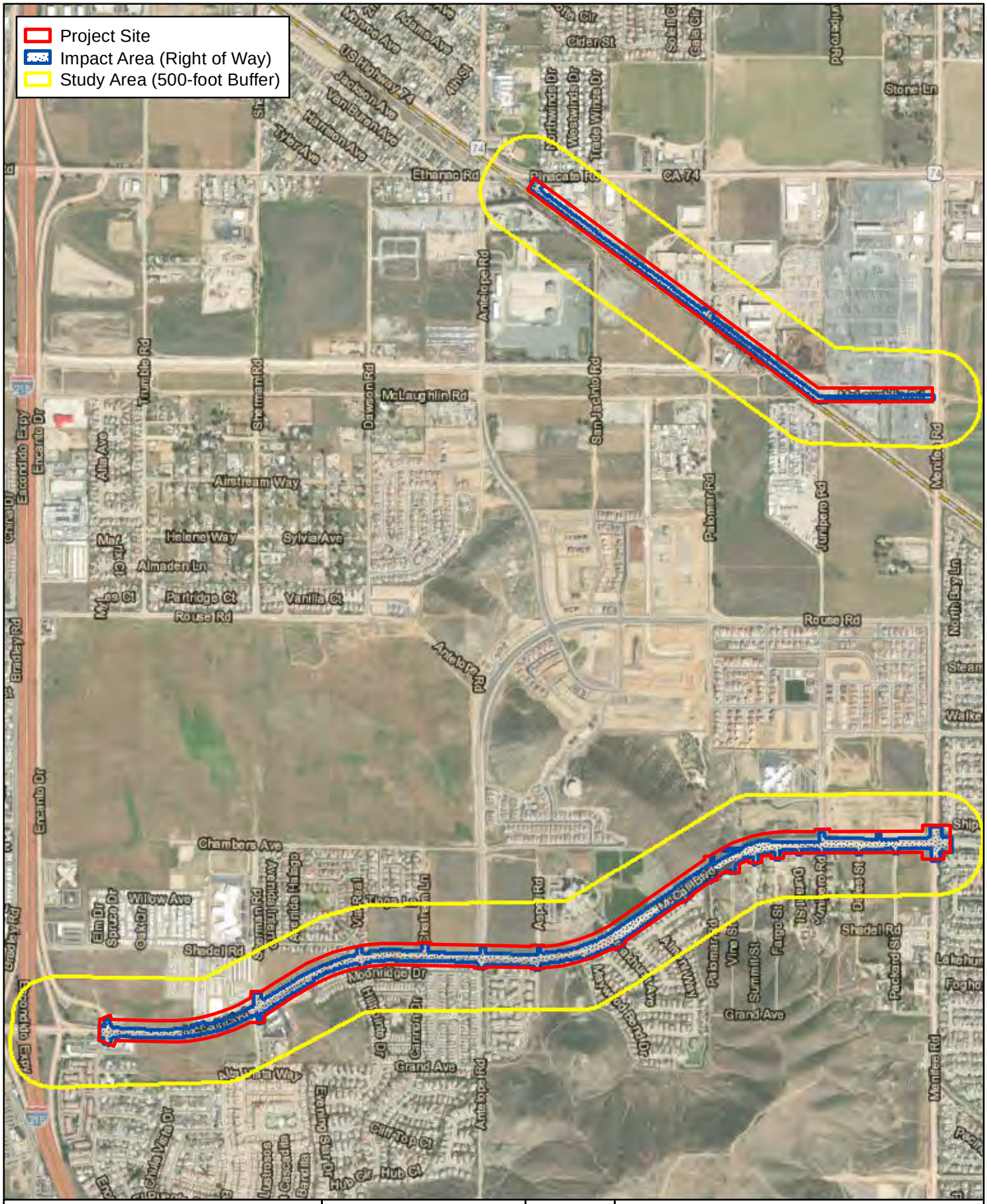
Menifee Valley
Additional Offsite Areas

Figure 1 Regional Map



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VCS Environmental

Map Created: July 2023
Data Sources: ESRI, County of Riverside

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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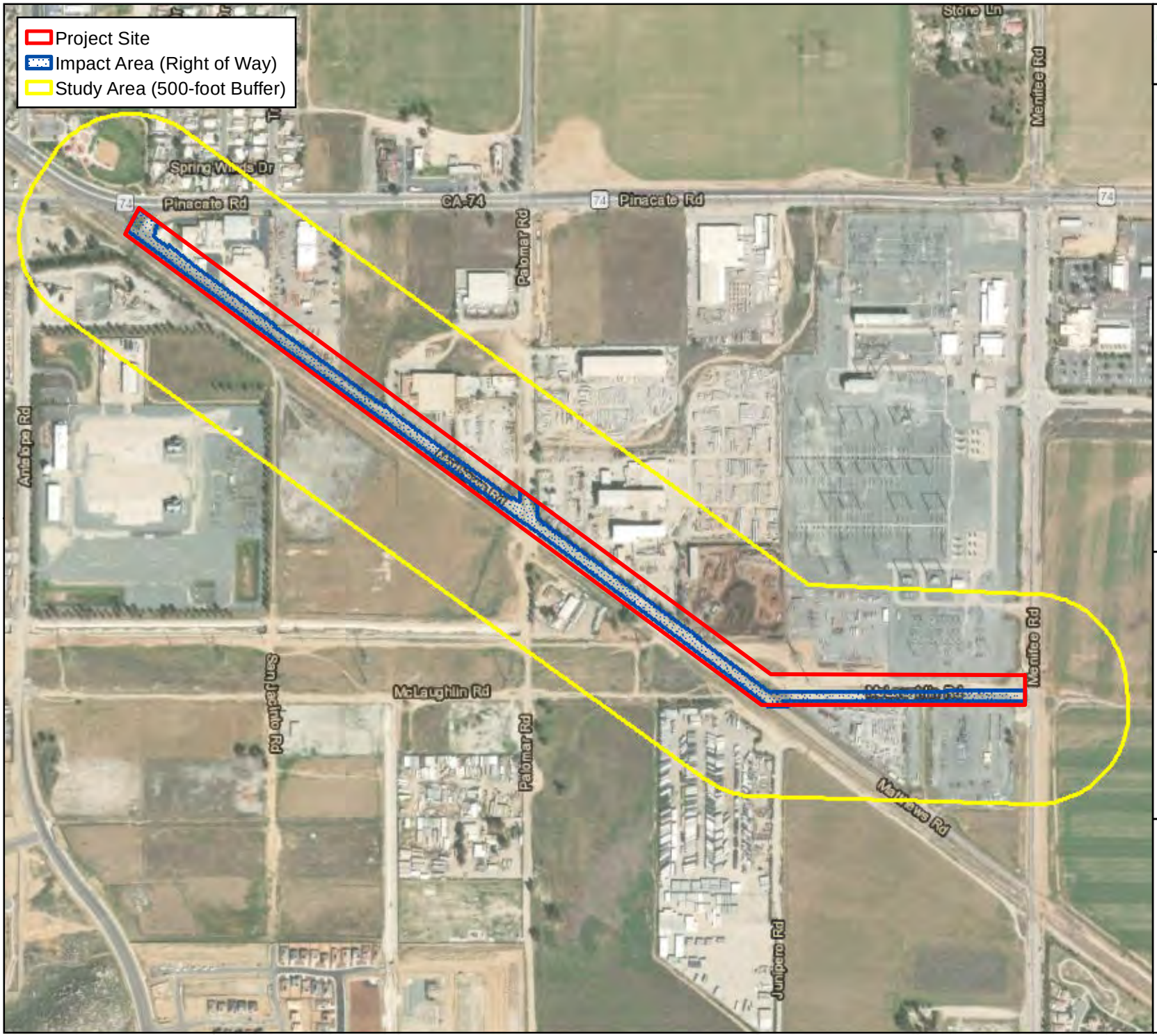
Menifee Valley
Additional Offsite Areas

Figure 2

Aerial Map



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Menifee Valley Additional Offsite Areas

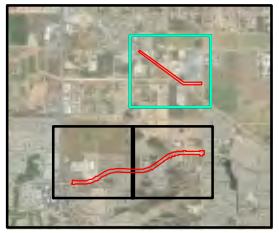

Figure 2

Aerial Map

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Map Date: July 2023
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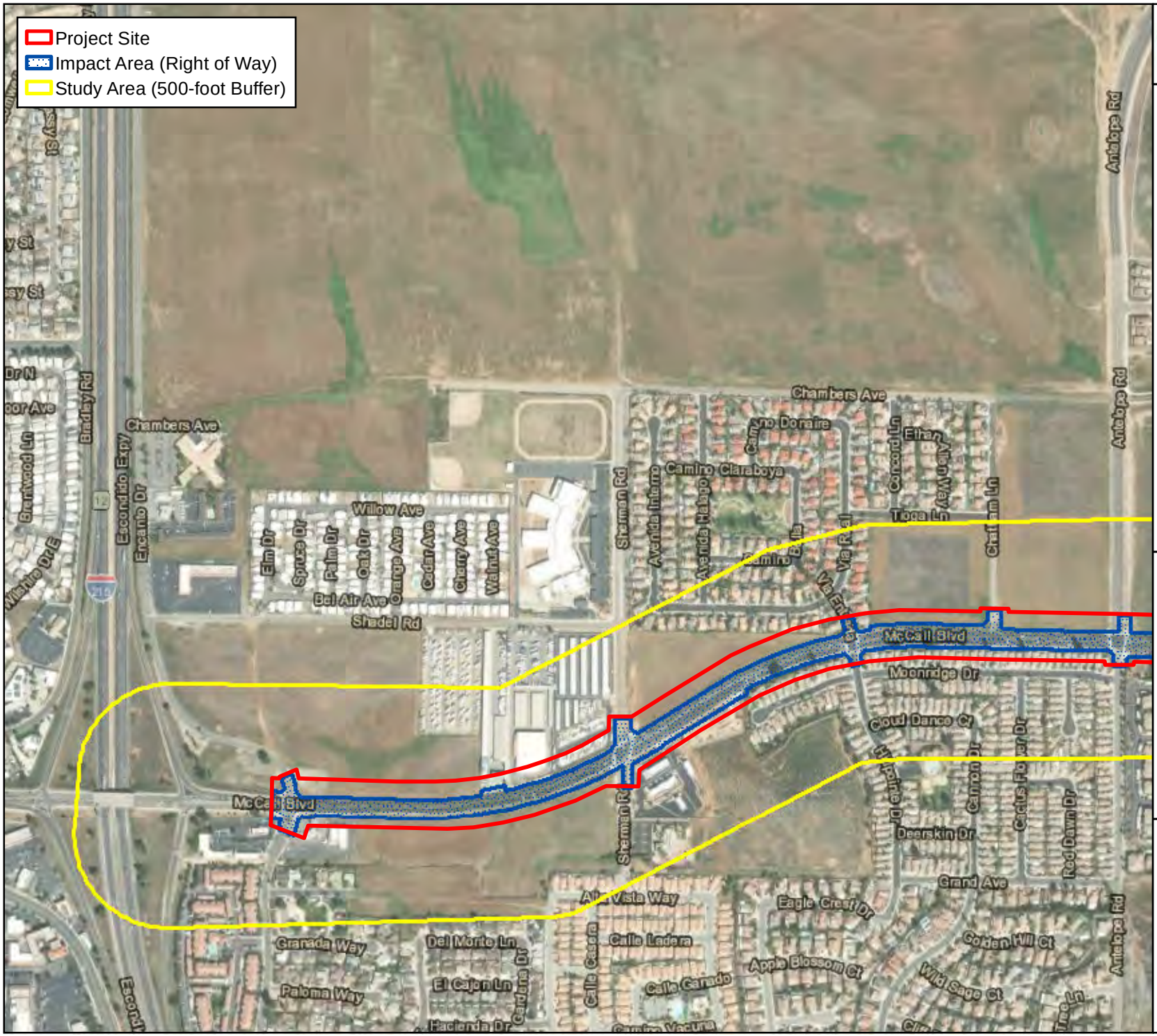

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Menifee Valley Additional Offsite Areas

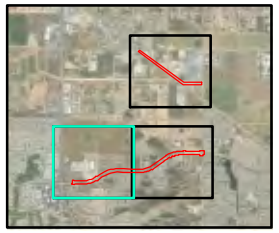


Figure 2

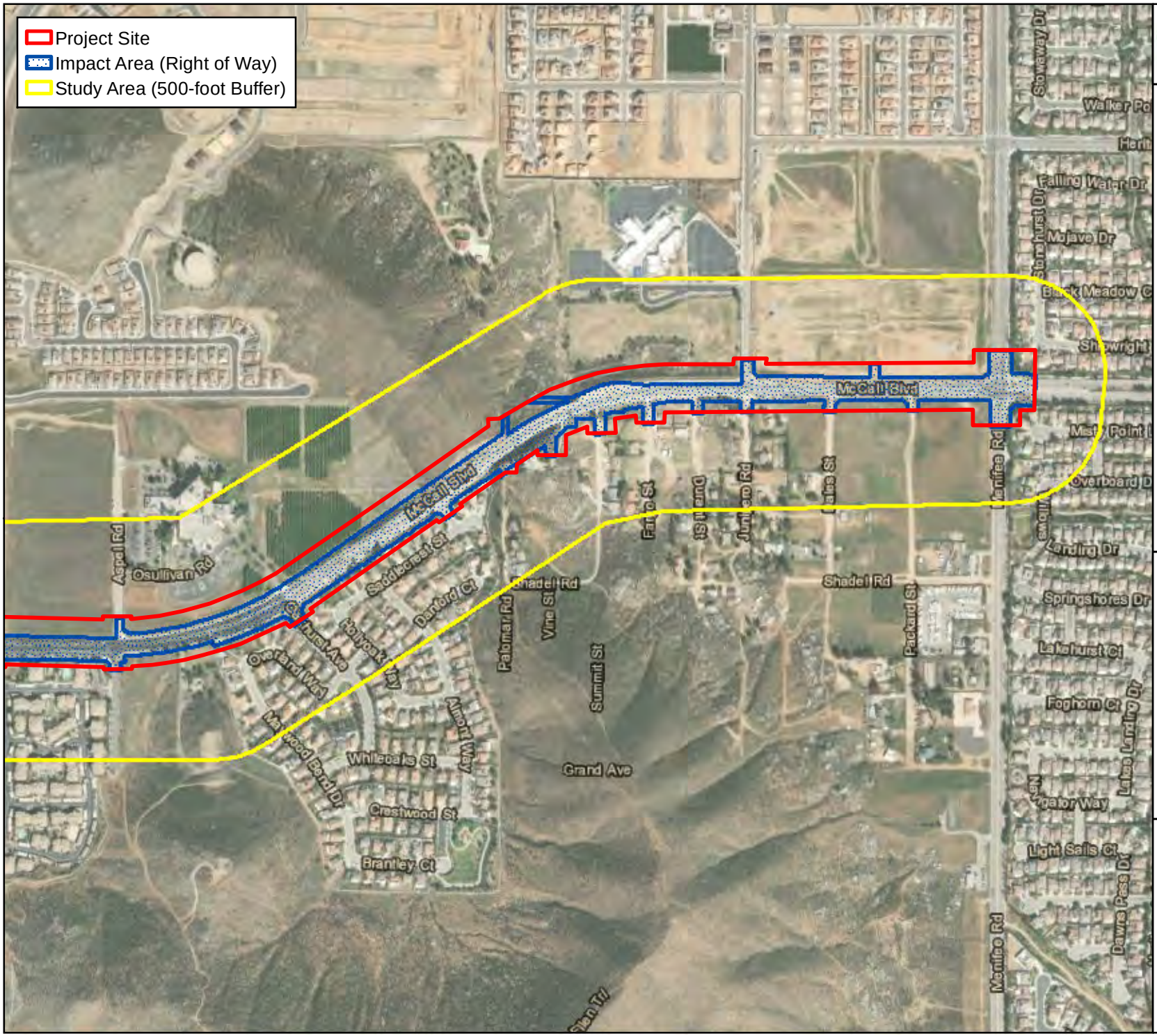
Aerial Map

N
W E
S

0 350 700
Feet

1:8,500

Map Date: July 2023
Data Sources: ESRI



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Menifee Valley Additional Offsite Areas

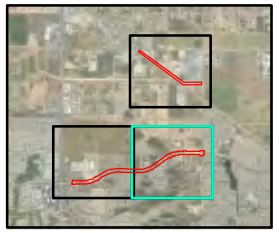


Figure 2

Aerial Map

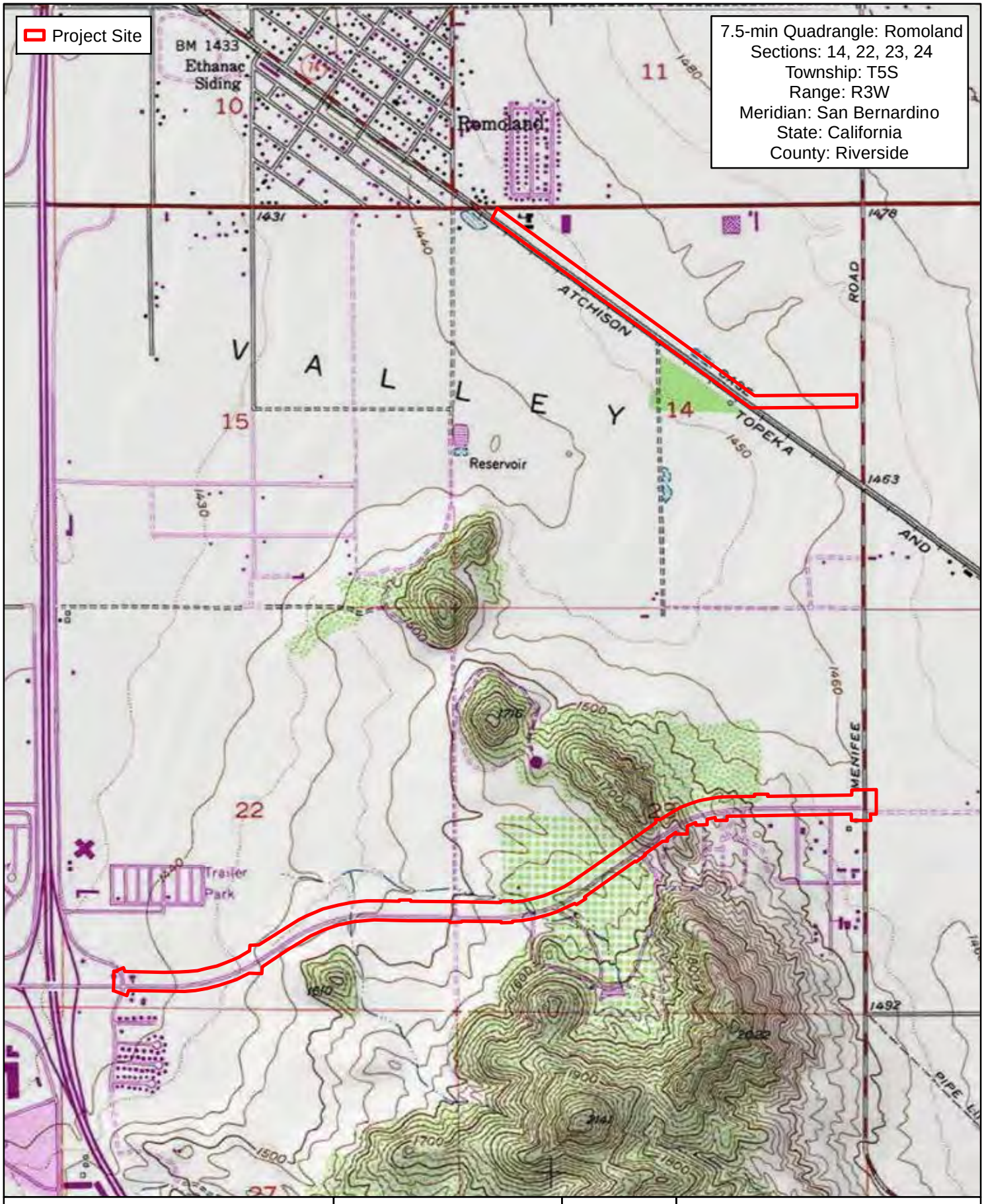
N
W E
S

0 350 700
Feet

1:8,500

Map Date: July 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, USGS

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

0 1,000 2,000
Feet

1:24,000

N
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Menifee Valley
Additional Offsite Areas

Figure 3 USGS Topographic Map

EXHIBIT

OFFSITE RW

McCALL BLVD., McLAUGHLIN AVE. & MATTHEWS RD.

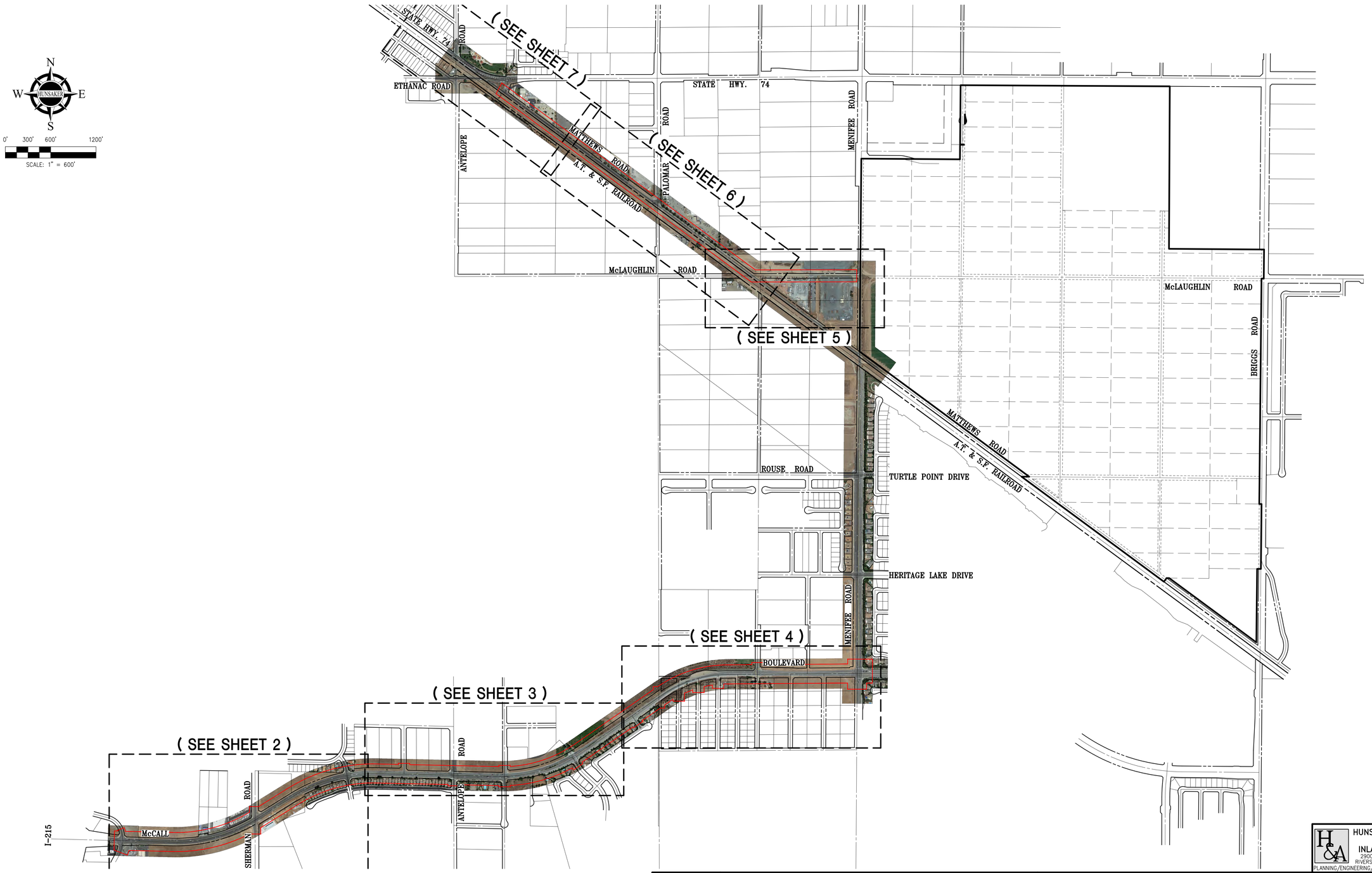

Figure 4

DATE	DESCRIPTION

REVISIONS

HUNSAKER & ASSOCIATES
IRVINE, INC
INLAND EMPIRE REGION
2900 ADAMS STREET, SUITE A-15
RIVERSIDE CA 92504 (951)352-7200
PLANNING/ENGINEERING/SURVEYING/GOVERNMENT RELATIONS

EXHIBIT

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, CALIFORNIA

DATE: 6/15/2023	PREPARED BY: R.BEUSCHLEIN	PID: 00588	W.O.: 1873-38303	SHEET 1 OF 7

DOCUMENT NO.:

RM NO.

BIN_NO.

PLOTTED BY: Robert Beuschlein DATE: Jun. 15, 2023 11:06:33 AM FILE: H:\00588\Mapping\Exhibits\Offsite RW Exhibit\Offsite RW Exhibit.dwg

EXHIBIT

OFFSITE RW

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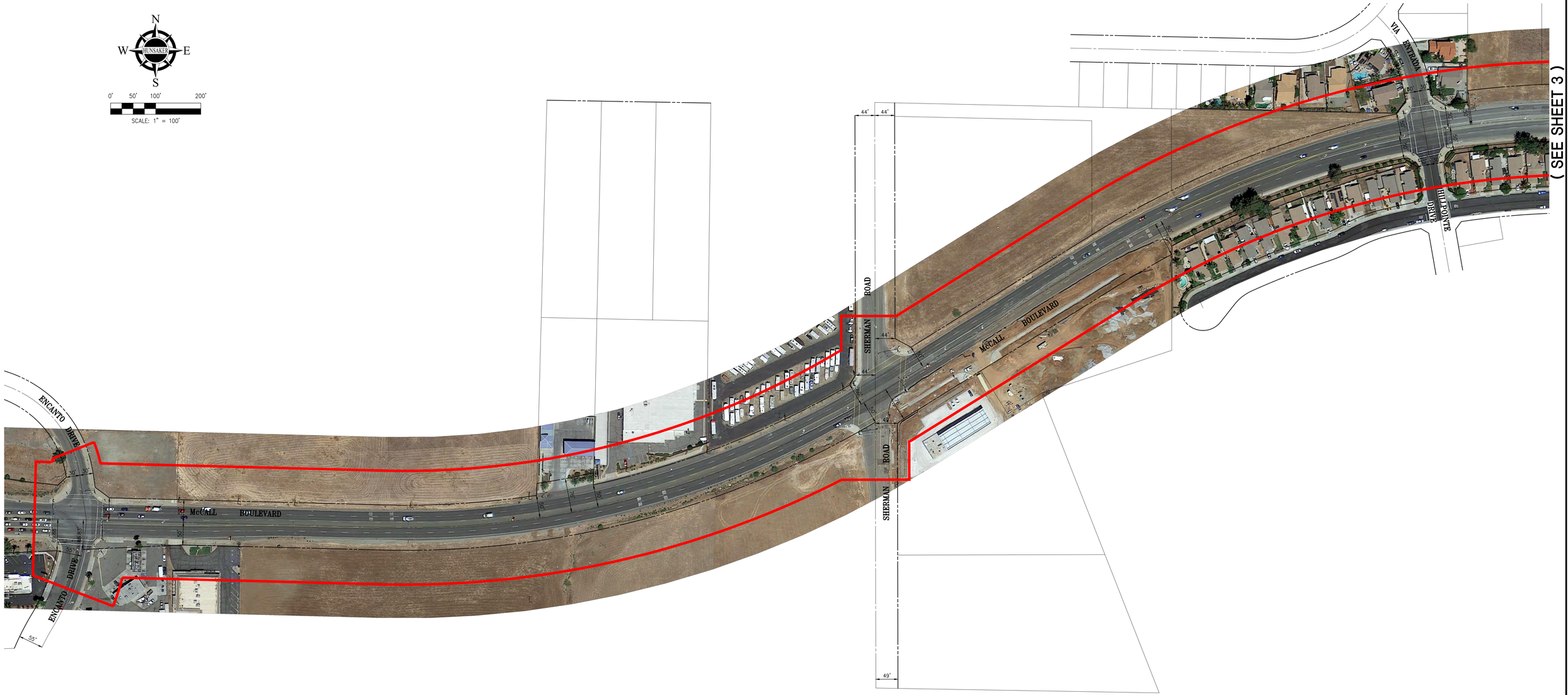
0' 50' 100' 200'

SCALE: 1" = 100'



HUNSAKER & ASSOCIATES
IRVINE, INC
INLAND EMPIRE REGION
2900 ADAMS STREET, SUITE A-15
RIVERSIDE CA 92504 (951)352-7200
PLANNING/ENGINEERING/SURVEYING/GOVERNMENT RELATIONS

DATE	DESCRIPTION

REVISIONS

EXHIBIT

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, CALIFORNIA

DATE: 6/15/2023 | PREPARED BY: R.BEUSCHLEIN | PID: 00588 | W.O.: 1873-38303 | SHEET 2 OF 7

DOCUMENT NO.:

RW NO.

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EXHIBIT

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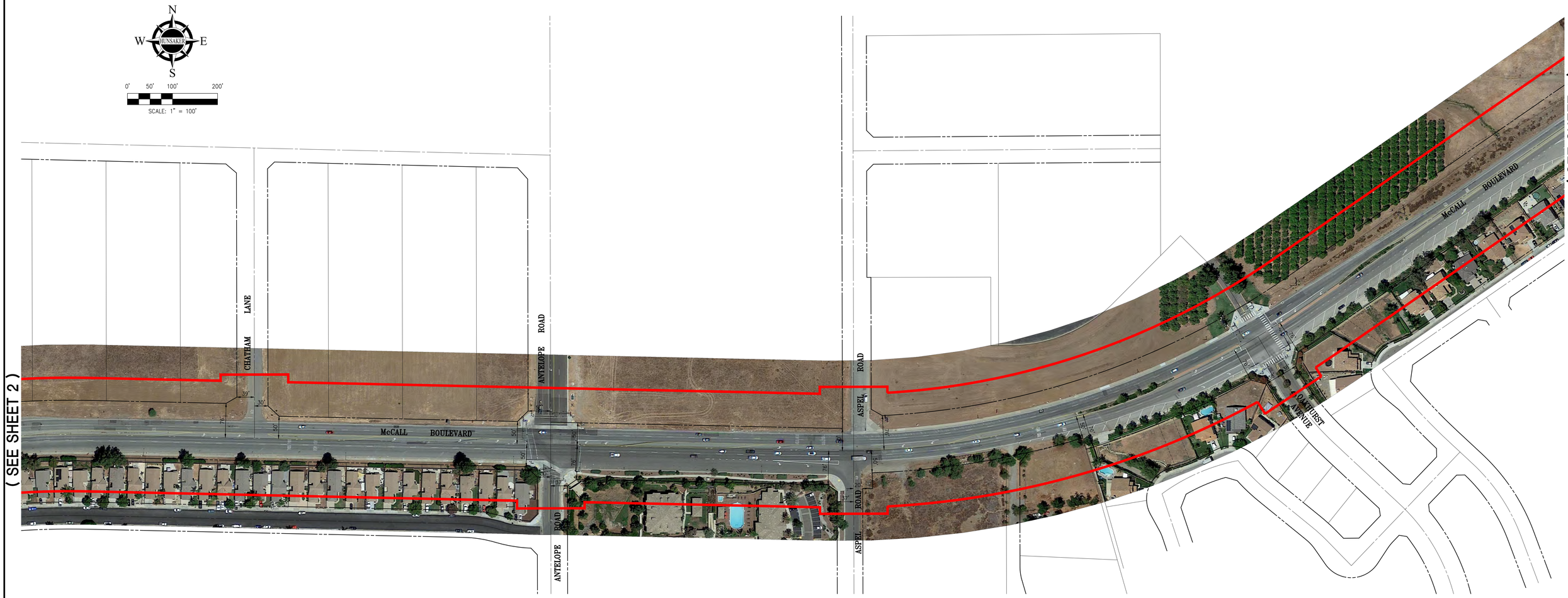

HUNSAKER & ASSOCIATES
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INLAND EMPIRE REGION
2900 ADAMS STREET, SUITE A-15
RIVERSIDE CA 92504 (951)352-7200
PLANNING/ENGINEERING/SURVEYING/GOVERNMENT RELATIONS

DATE	DESCRIPTION

REVISIONS

EXHIBIT

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, CALIFORNIA

DATE: 6/15/2023 | PREPARED BY: R.BEUSCHLEIN | PID: 00588 | W.O.: 1873-38303 | SHEET 3 OF 7

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EXHIBIT

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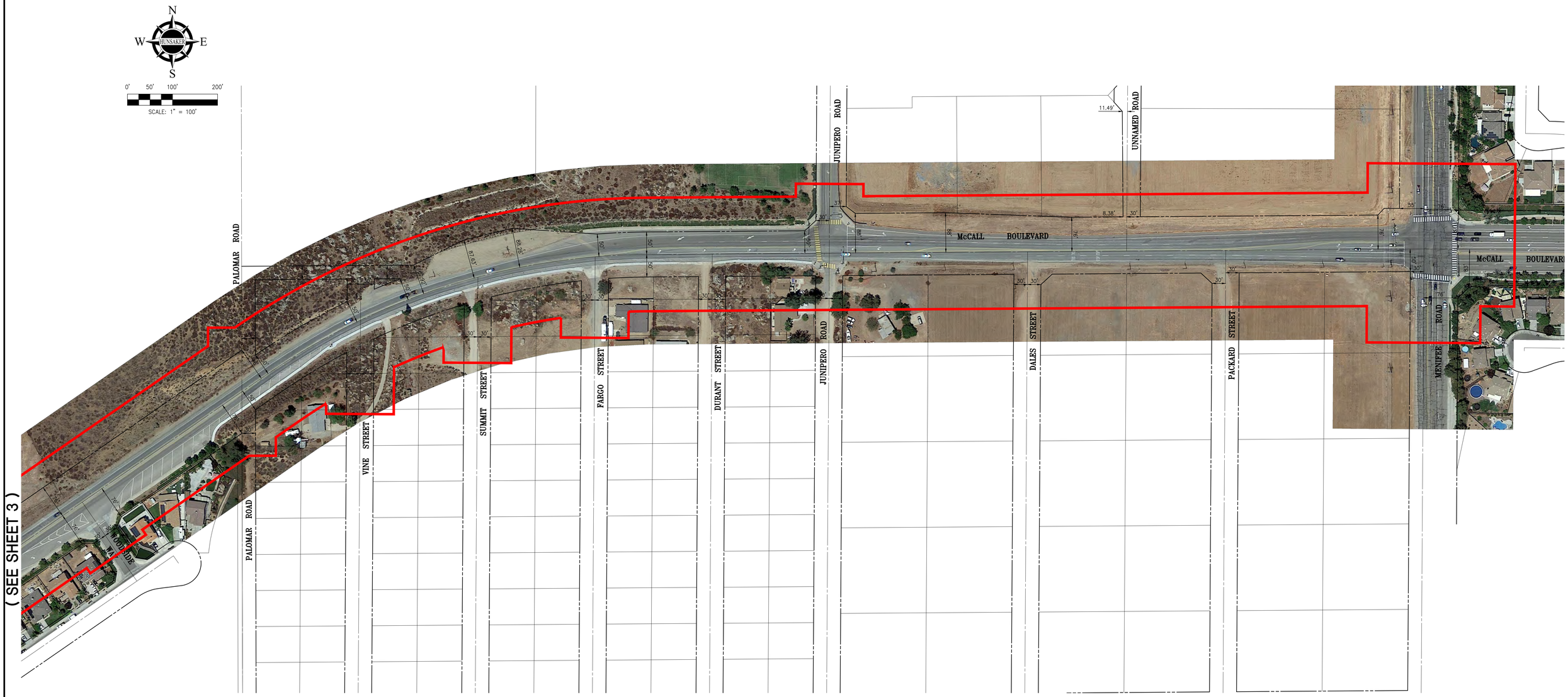

HUNSAKER & ASSOCIATES
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2900 ADAMS STREET, SUITE A-15
RIVERSIDE CA 92504 (951)352-7200
PLANNING/ENGINEERING/SURVEYING/GOVERNMENT RELATIONS

DATE	DESCRIPTION

REVISIONS

EXHIBIT

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, CALIFORNIA

DATE: 6/15/2023 | PREPARED BY: R.BEUSCHLEIN | PID: 00588 | W.O.: 1873-38303 | SHEET 4 OF 7

DOCUMENT NO.:

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EXHIBIT

OFFSITE RW

McCALL BLVD., McLAUGHLIN AVE. & MATTHEWS RD.

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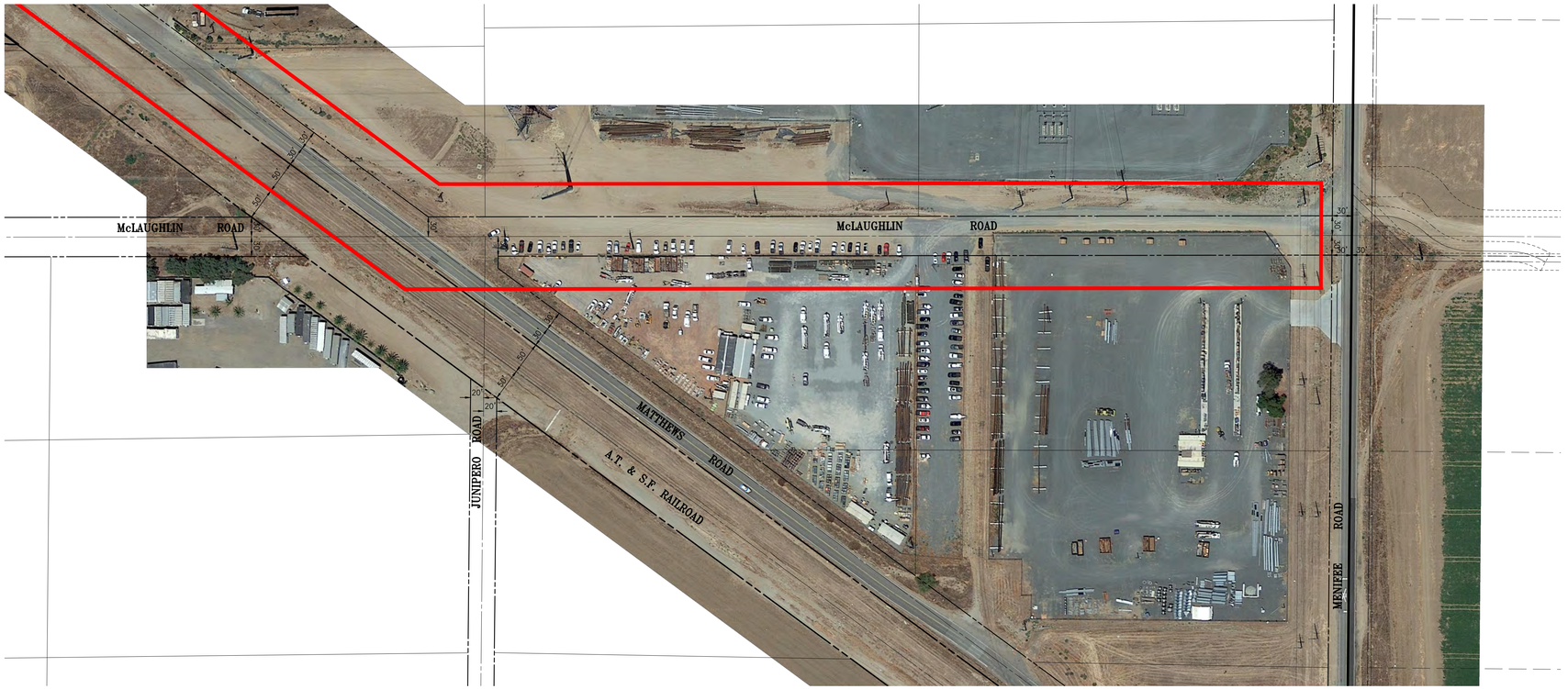
0' 50' 100' 200'

SCALE: 1" = 100'

(SEE SHEET 6)



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DATE	DESCRIPTION

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EXHIBIT

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, CALIFORNIA

DATE: 6/15/2023 | PREPARED BY: R.BEUSCHLEIN | PID: 00588 | W.O.: 1873-38303 | SHEET 6 OF 8

DOCUMENT NO.:

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EXHIBIT

OFFSITE RW

McCALL BLVD., McLAUGHLIN AVE. & MATTHEWS RD.

0' 50' 100' 200'

SCALE: 1" = 100'

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INLAND EMPIRE REGION
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DATE	DESCRIPTION

REVISIONS

EXHIBIT

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, CALIFORNIA

DATE: 6/15/2023 | PREPARED BY: R.BEUSCHLEIN | PID: 00588 | W.O.: 1873-38303 | SHEET 6 OF 7

DOCUMENT NO.: RM NO. BIN_NO.

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EXHIBIT

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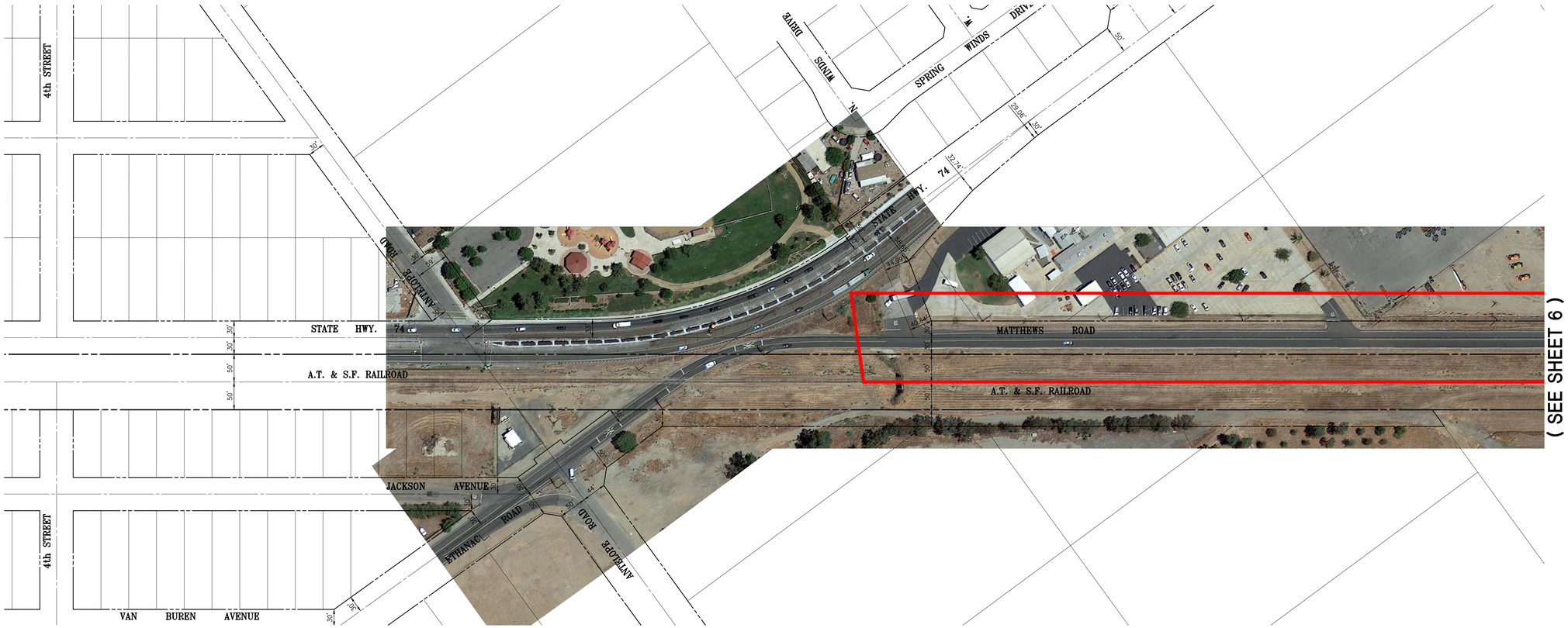
SCALE: 1" = 100'



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IRVINE, INC
INLAND EMPIRE REGION
2900 ADAMS STREET, SUITE A-15
RIVERSIDE CA 92504 (951)352-7200
PLANNING/ENGINEERING/SURVEYING/GOVERNMENT RELATIONS

DATE	DESCRIPTION

REVISIONS

EXHIBIT

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, CALIFORNIA

DATE: 6/15/2023 | PREPARED BY: R.BEUSCHLEIN | PID: 00588 | W.O.: 1873-38303 | SHEET 7 OF 7

DOCUMENT NO.:

RM NO.:

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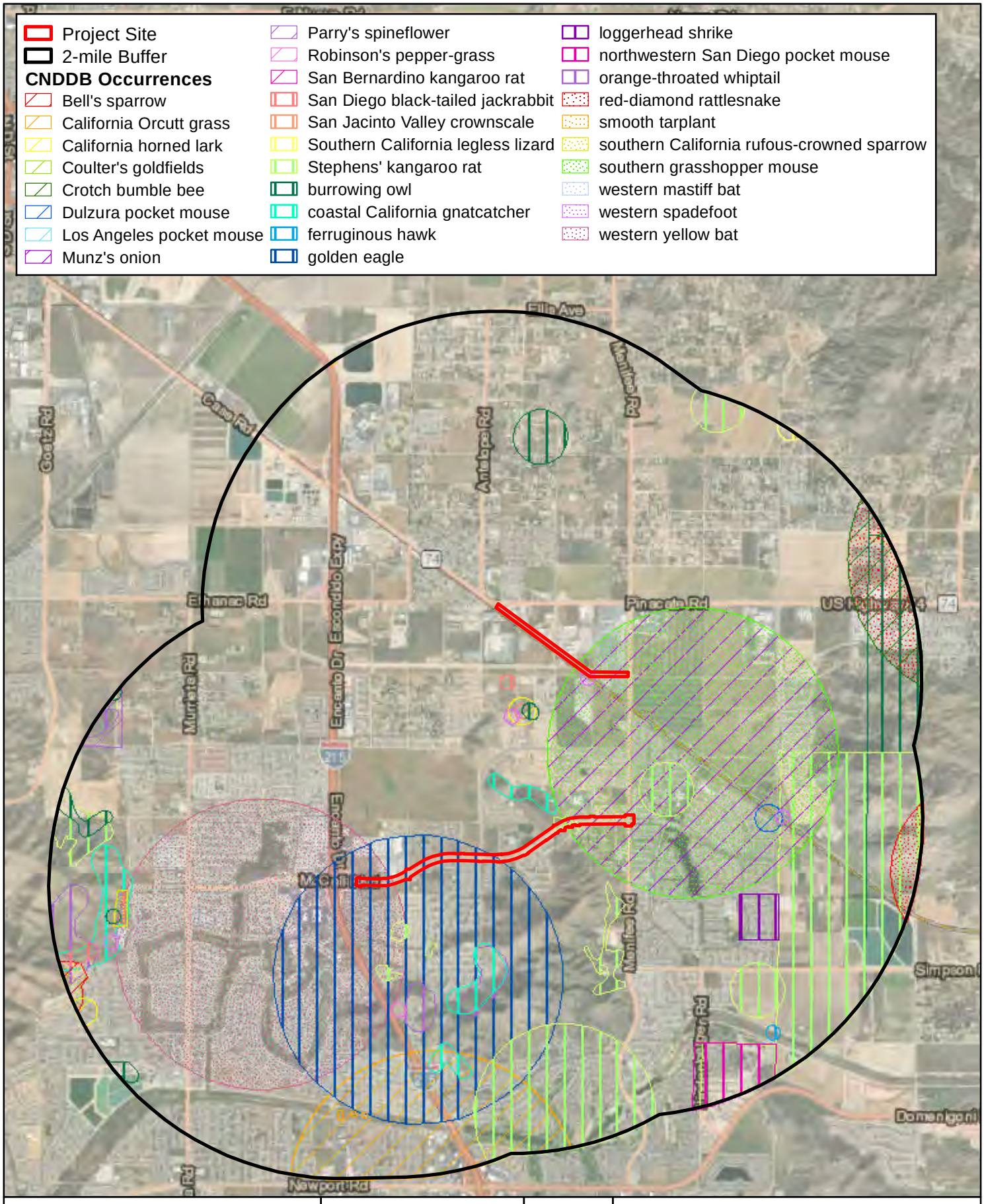

Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, CNDDB

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Feet

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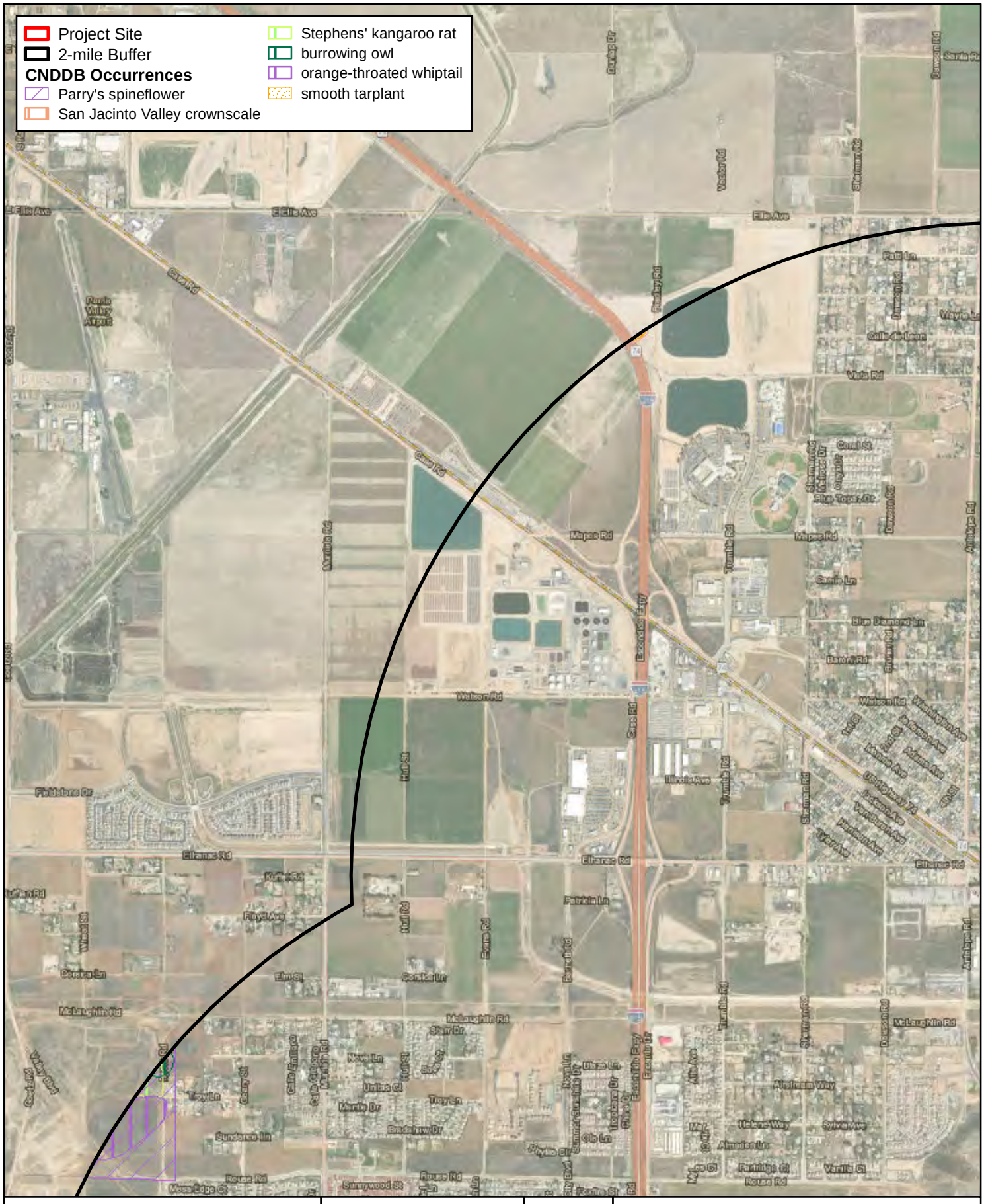
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, CNDDB

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Feet
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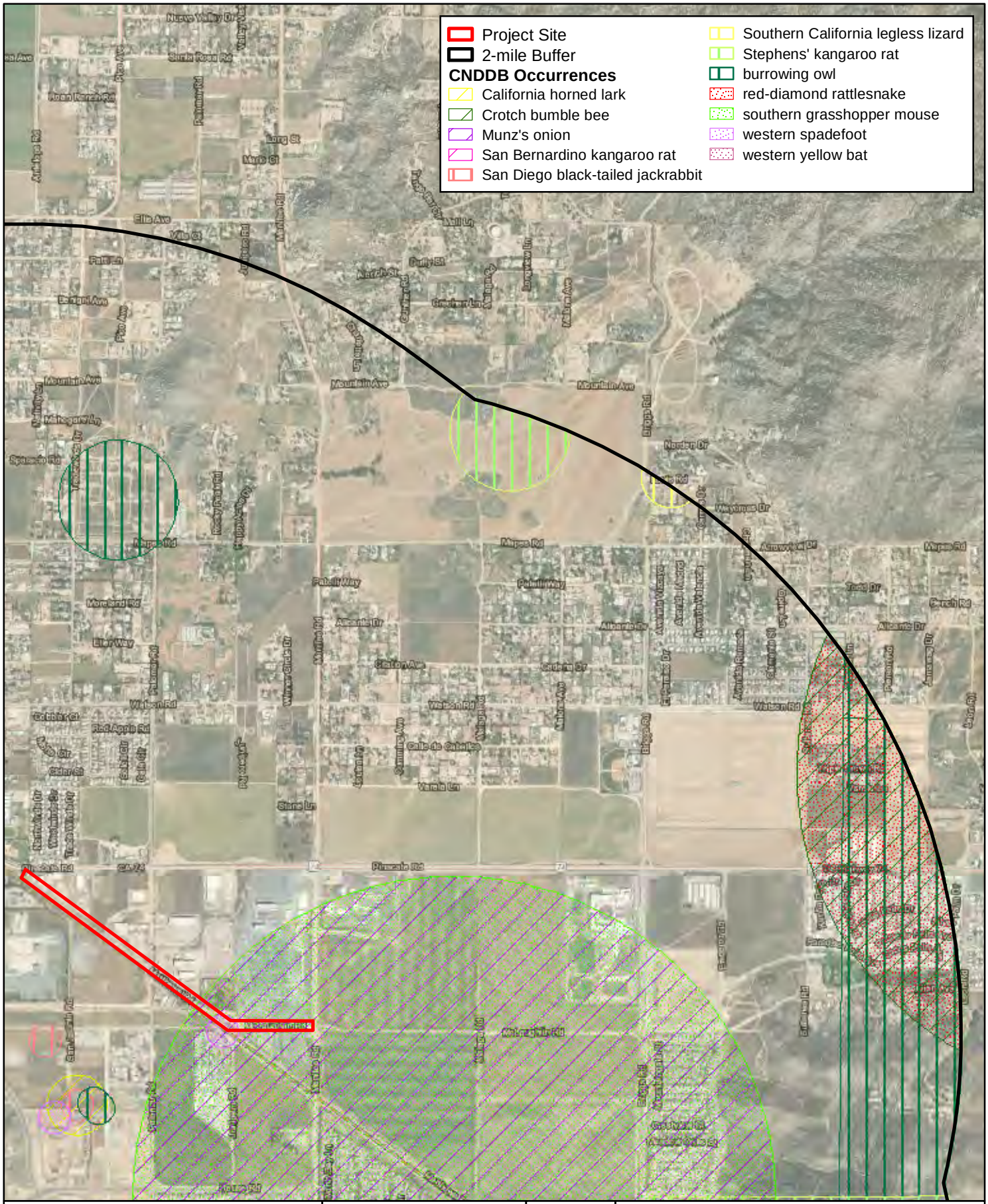
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, CNDDB

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Feet
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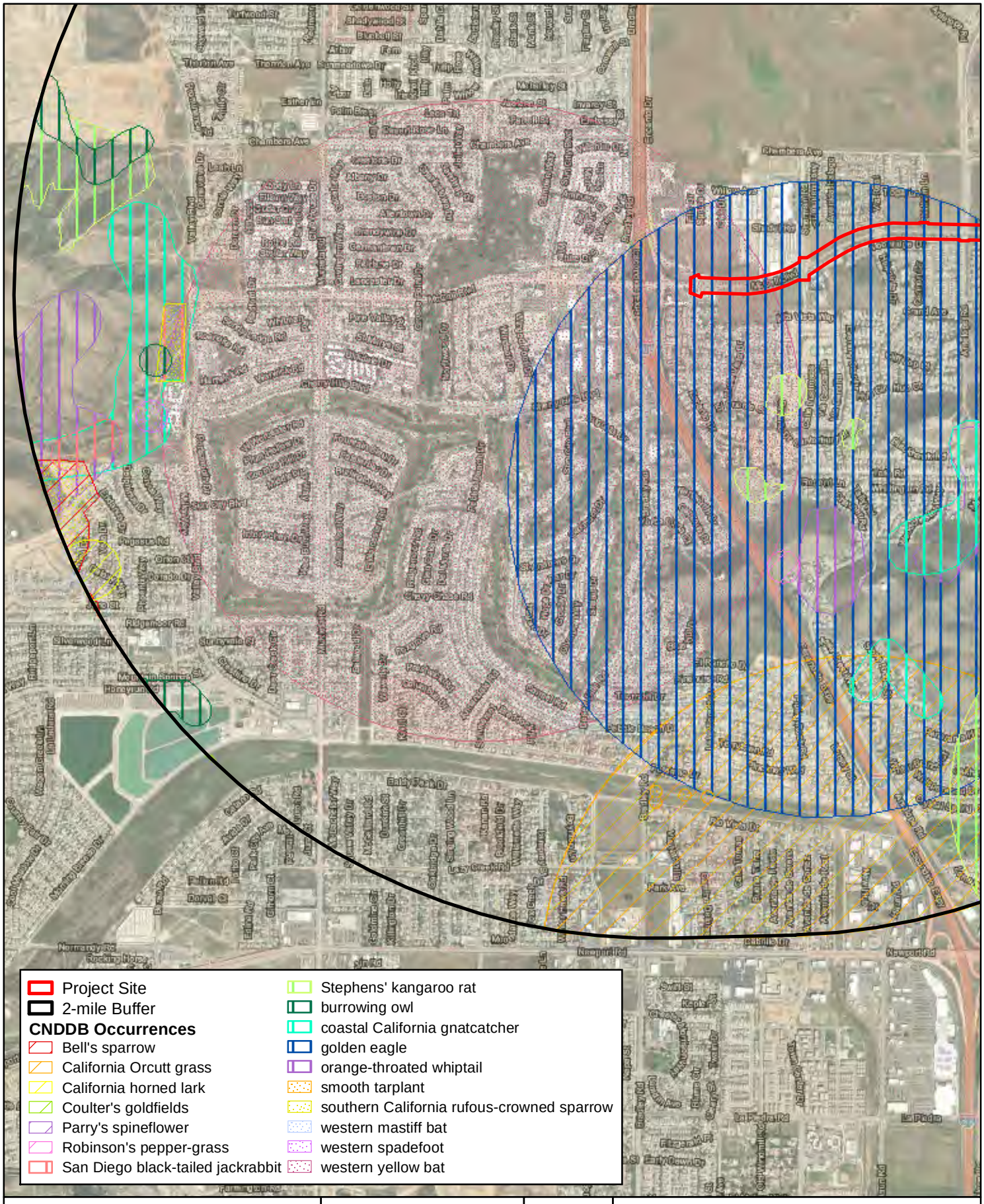
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, CNDDB

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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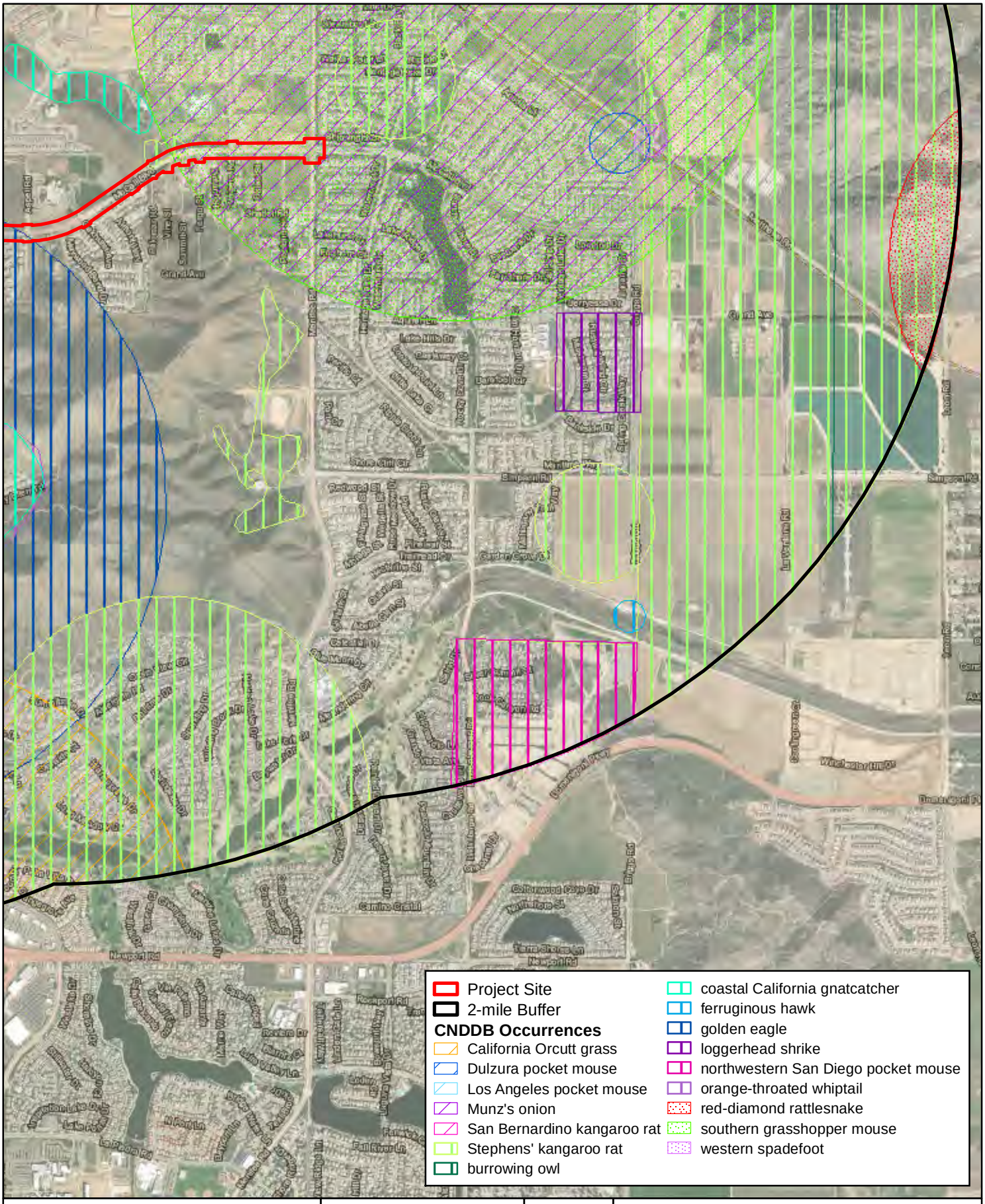
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, CNDDB

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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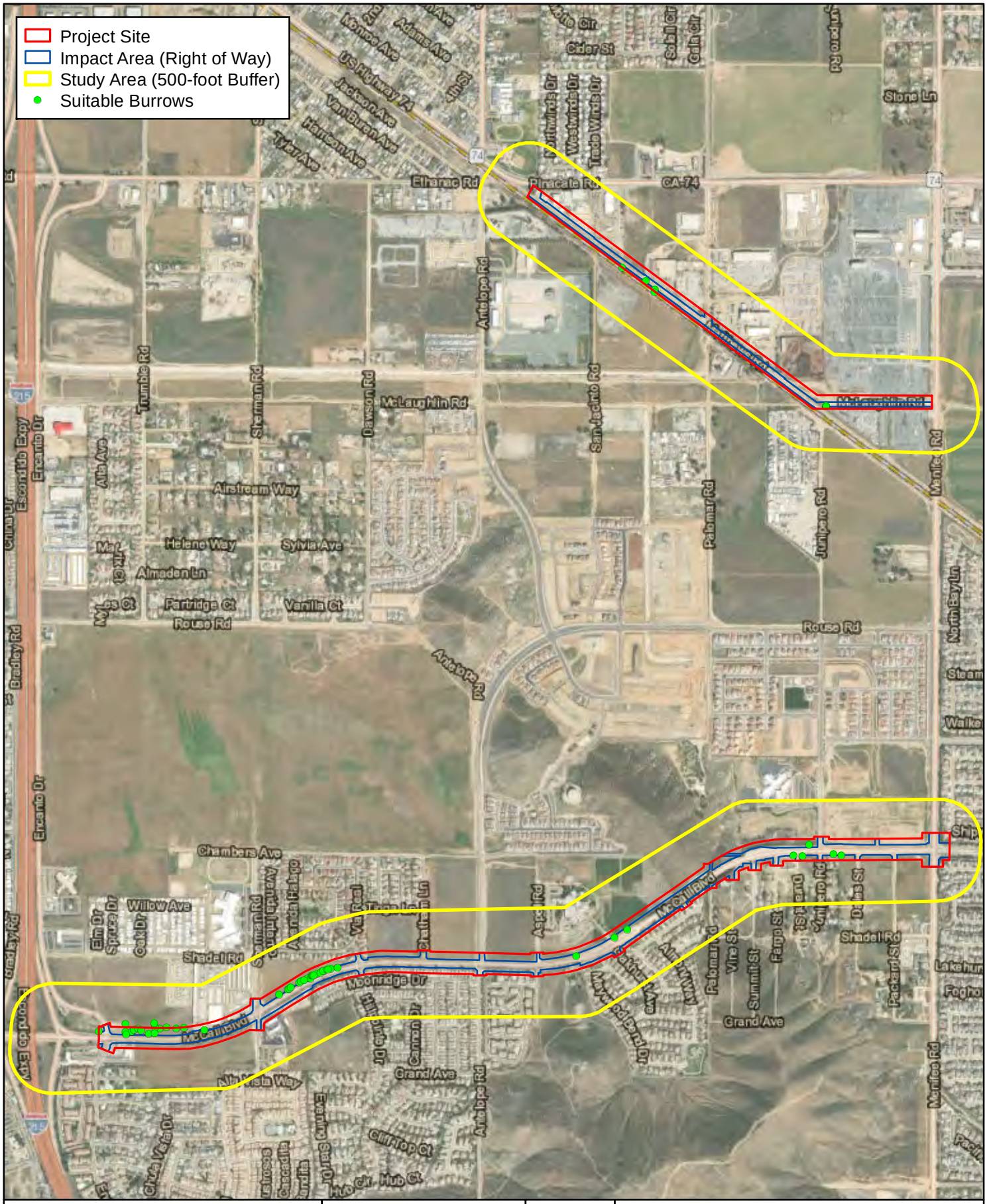
Menifee Valley
Additional Offsite Areas

Figure 5 CNDDB Occurrences Map



Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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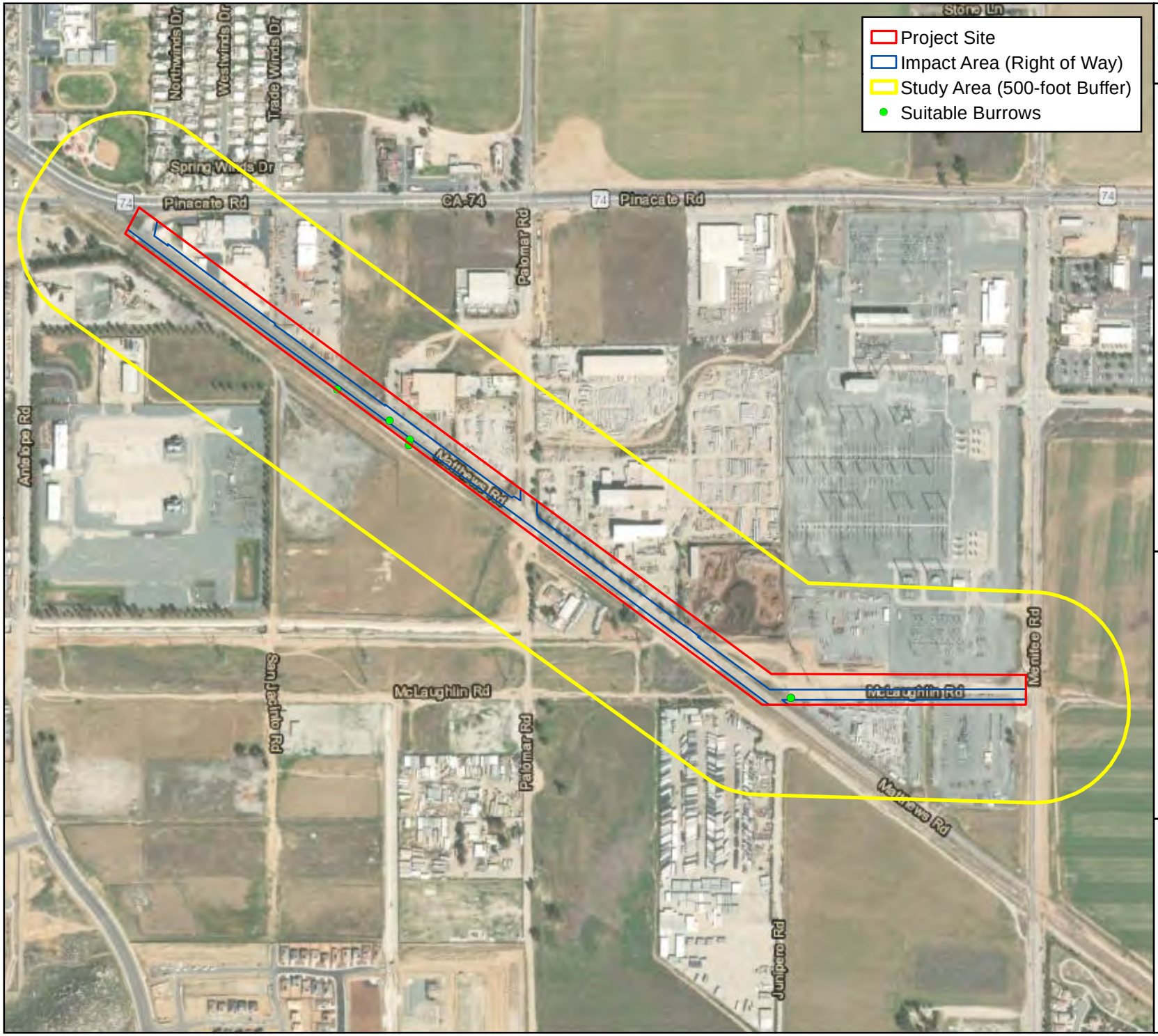
Menifee Valley
Additional Offsite Areas

Figure 6 Burrowing Owl Map



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Menifee Valley Additional Offsite Areas

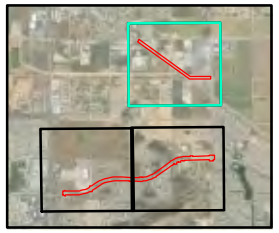

Figure 6

Burrowing Owl Map

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0 350 700
Feet

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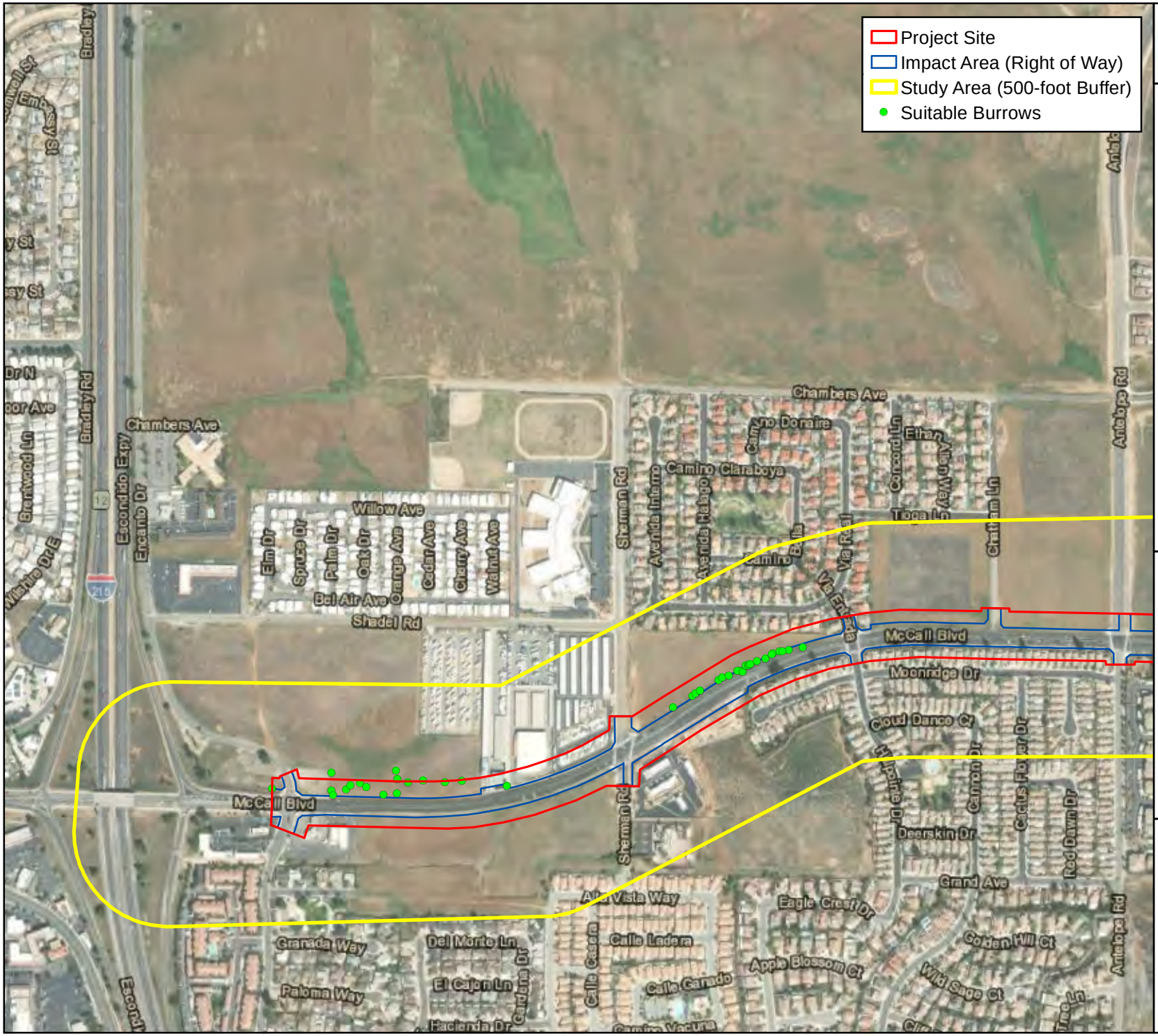
Map Date: July 2023
Data Sources: ESRI



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Menifee Valley Additional Offsite Areas

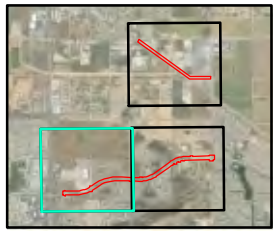


Figure 6

Burrowing Owl Map

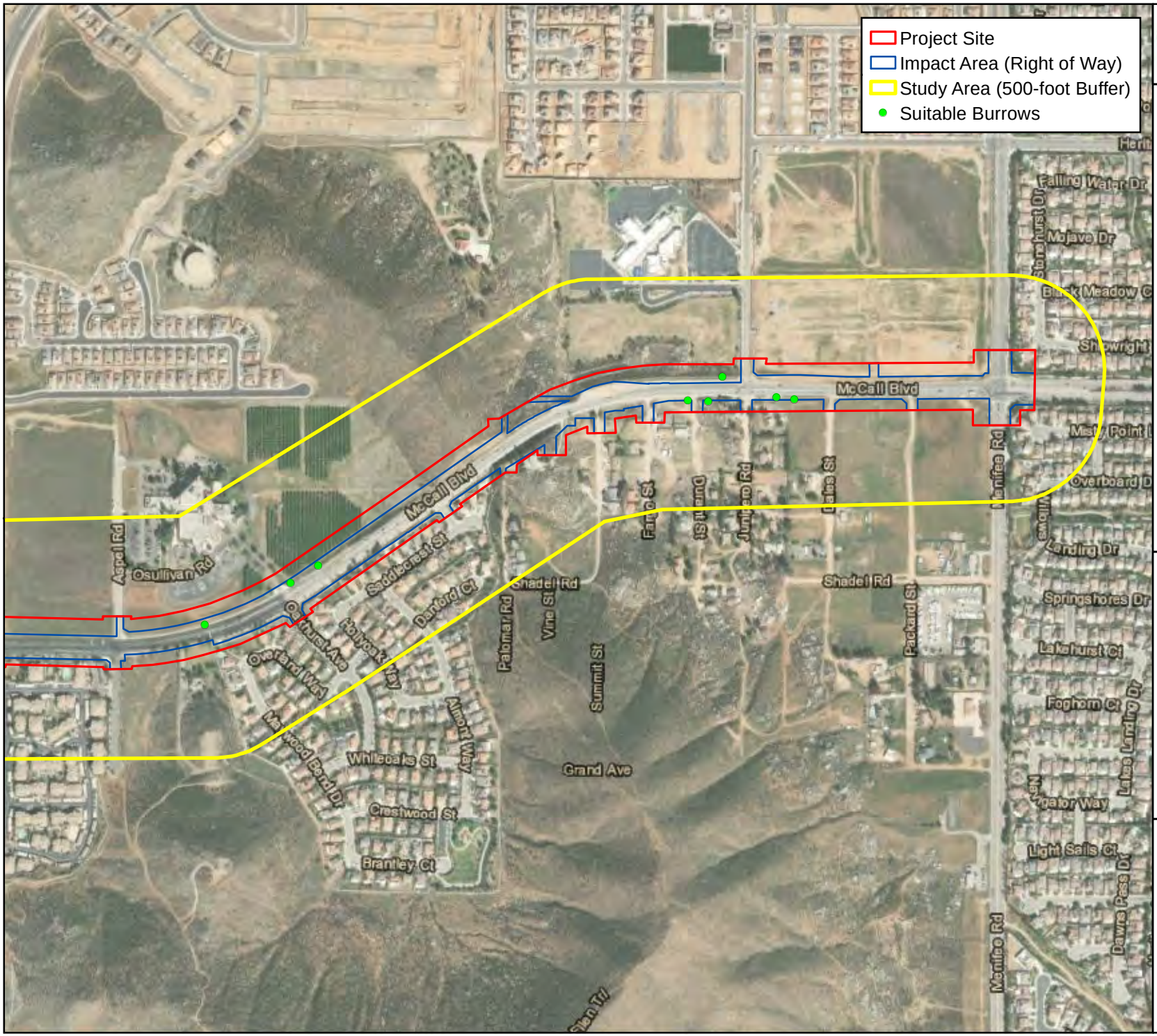
N
W E
S

0 350 700
Feet

1:8,500

Map Date: July 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

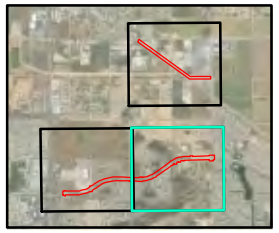

Figure 6

Burrowing Owl Map

N
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Feet

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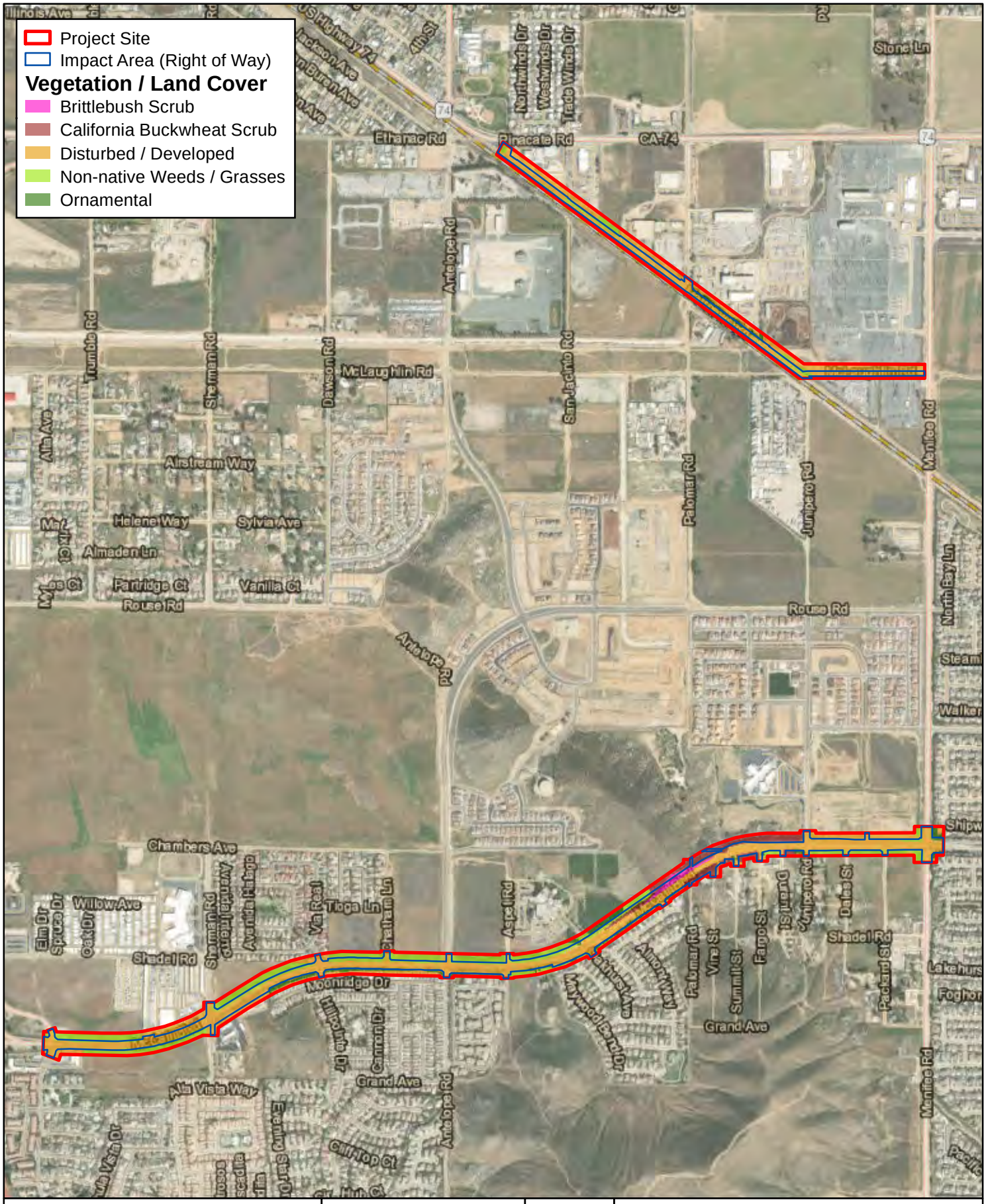
Map Date: July 2023
Data Sources: ESRI


Project Site
Impact Area (Right of Way)
Vegetation / Land Cover
Brittlebush Scrub
California Buckwheat Scrub
Disturbed / Developed
Non-native Weeds / Grasses
Ornamental
Etharac Rd
Pinacate Rd
CA-74
Antelope Rd
Trumble Rd
Sherman Rd
Dawson Rd
McLaughlin Rd
San Jacinto Rd
Menifee Rd
Palomar Rd
Juniper Rd
Airstream Way
Helene Way
Sylvia Ave
Almaden Ln
Partridge Ct
Vanilla Ct
Rouse Rd
North Bay Ln
Chambers Ave
Willow Ave
Elm Dr
Spruce Dr
Oak Dr
Shadel Rd
Avenida Malaga
Via Real
Tioga Ln
Chaltare Ln
Aspel Rd
Noonridge Dr
Cannon Dr
Grand Ave
Vine St
Summit St
Fargo St
Juniper St
Dales St
Packard St
Alta Vista Way
Alta Vista Dr
Cliff Top Ct
Prepared By:
VCS Environmental
Map Created: July 2023
Data Sources: ESRI
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
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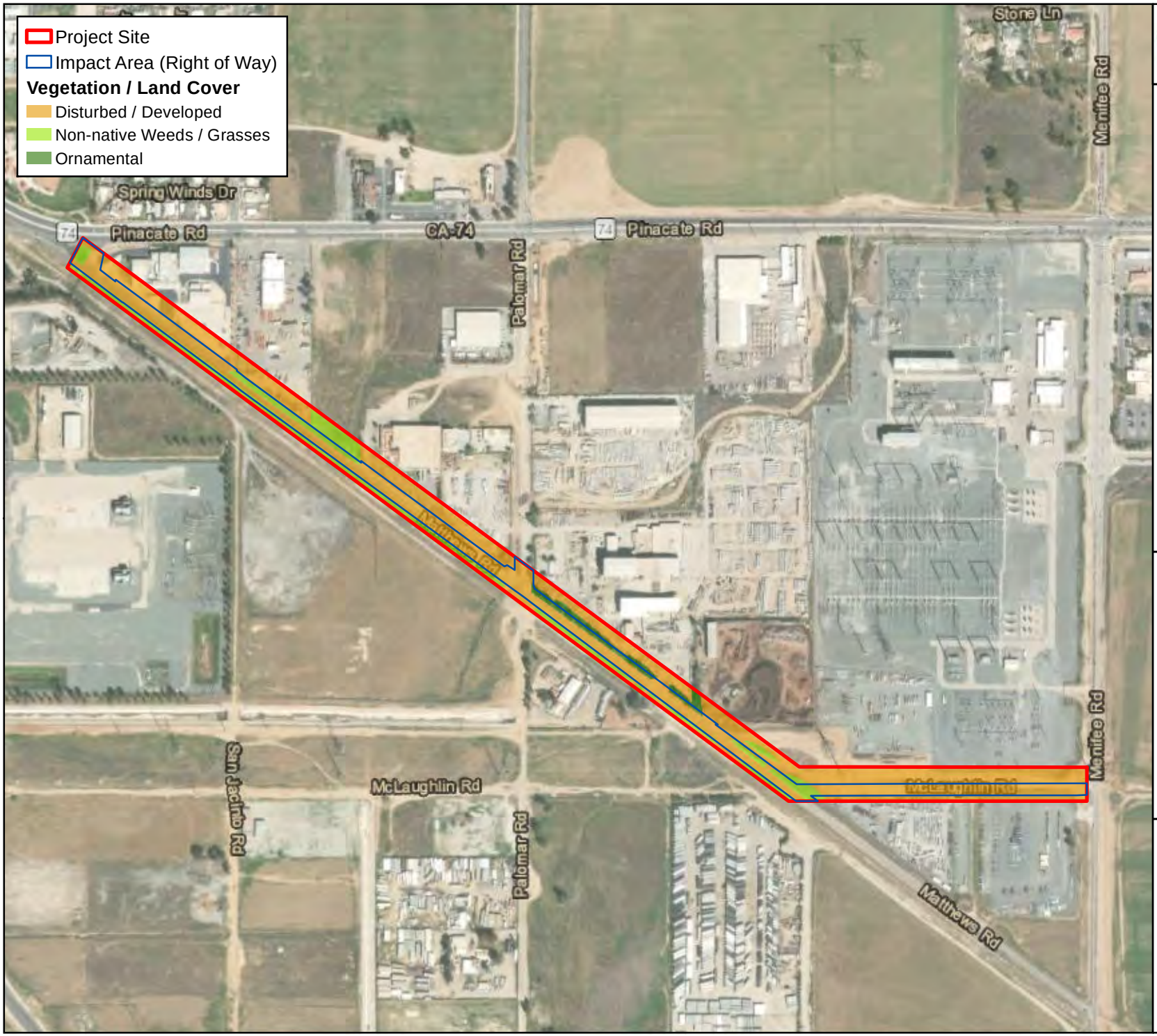
Menifee Valley
Additional Offsite Areas
Figure 7
Vegetation Map



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Menifee Valley Additional Offsite Areas

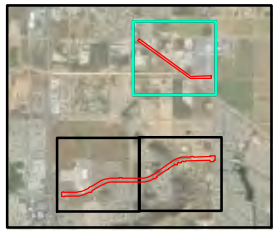

Figure 7

Vegetation Map

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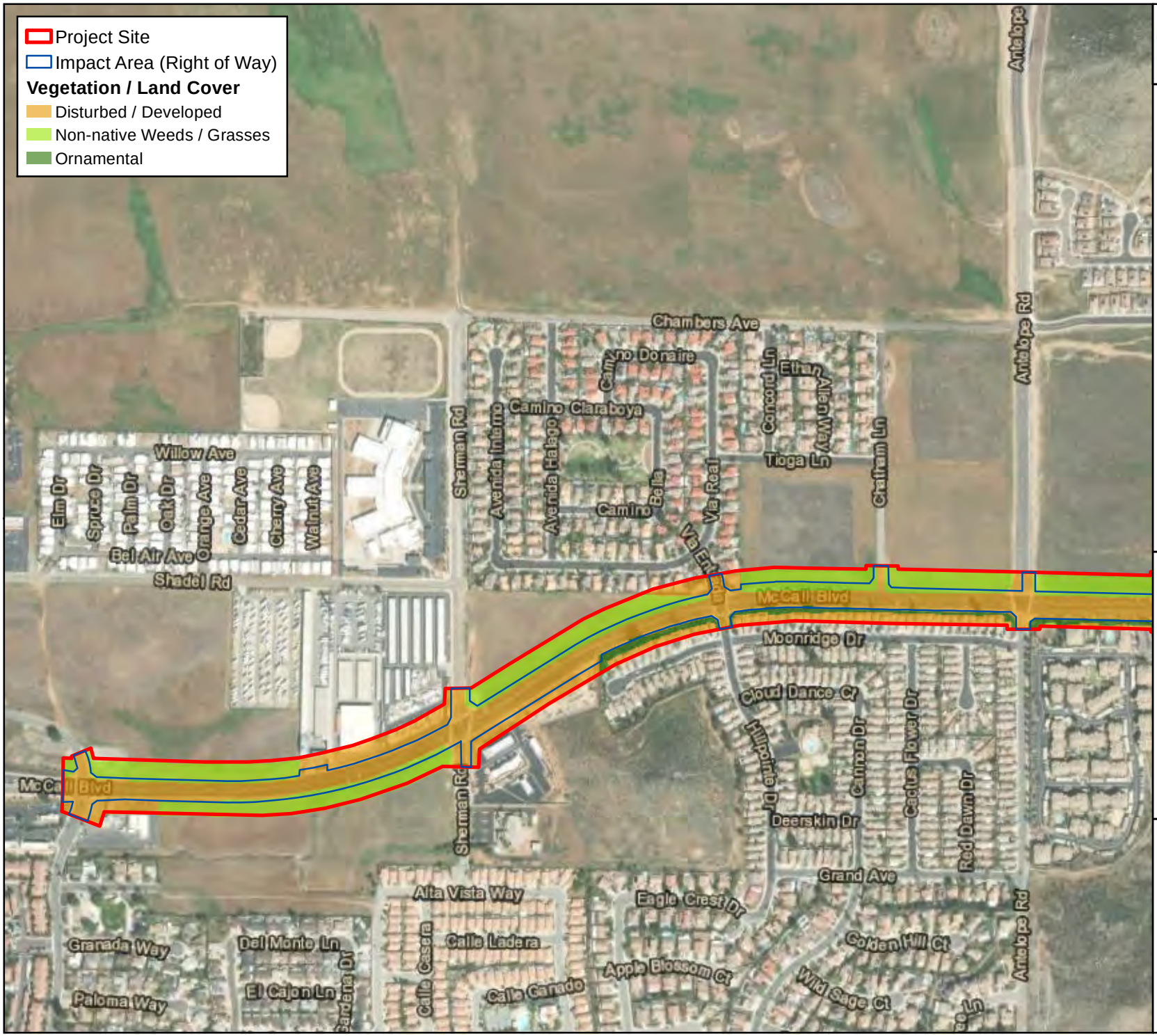
Map Date: July 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

Figure 7

Vegetation Map

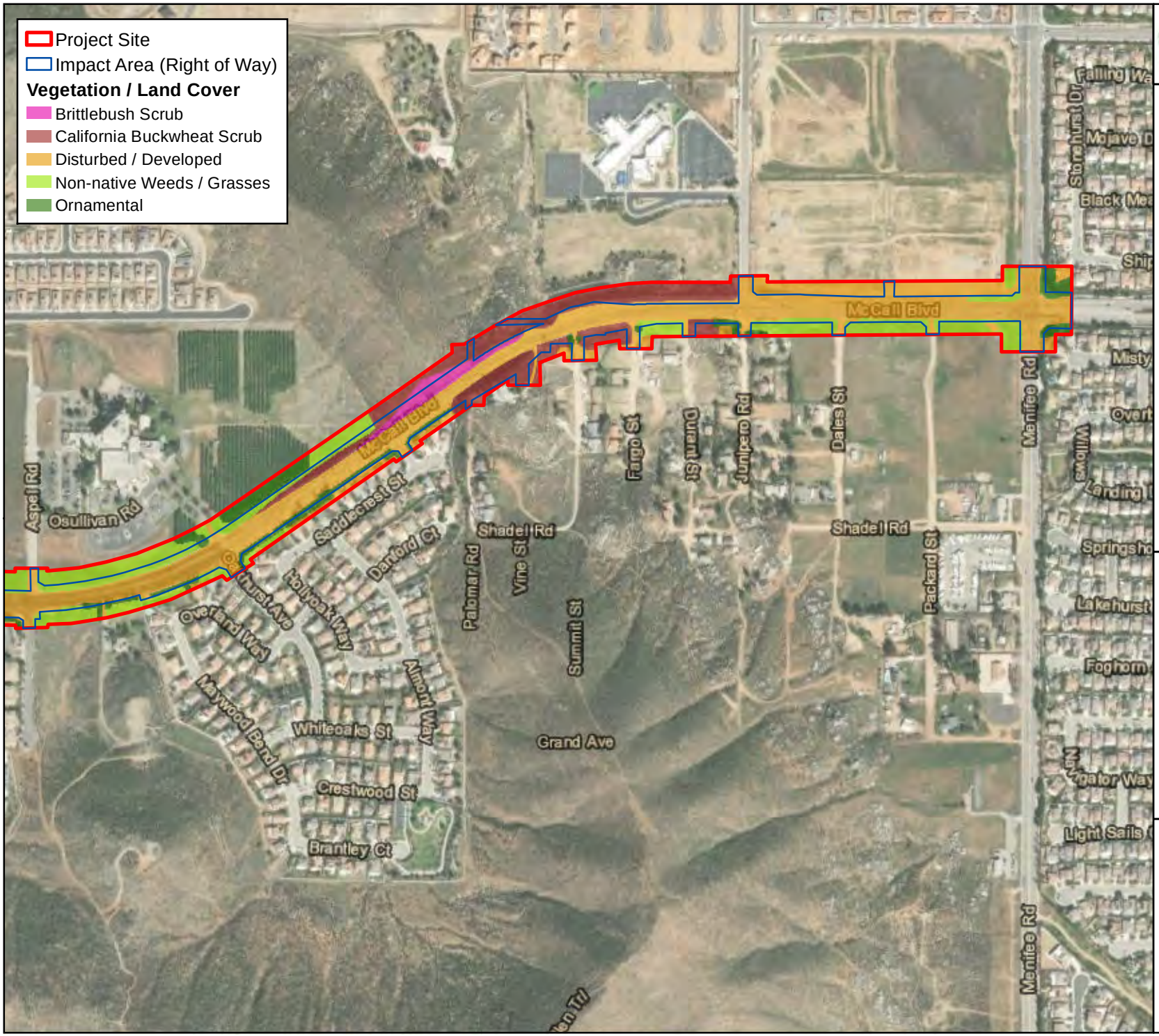
N
W E
S

0 350 700
Feet

1:7,500

Map Date: July 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

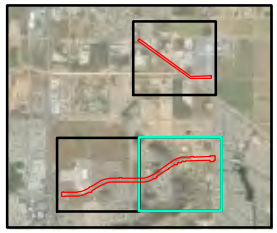

Figure 7

Vegetation Map

N
W E
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0 350 700
Feet

1:7,500

Map Date: July 2023
Data Sources: ESRI


Project Site
Impact Area (Right of Way)
Waters of the State
Disturbed Ephemeral Streambed
Etheanac Rd
Pinacate Rd
CA-74
Antelope Rd
Trumble Rd
Sherman Rd
Dawson Rd
McLaughlin Rd
San Jacinto Rd
Palomar Rd
Juniper Rd
Menifee Rd
Airstream Way
Helene Way
Sylvia Ave
Almaden Ln
Partridge Ct
Vanilla Ct
Rouse Rd
Chambers Ave
Willow Ave
Shadel Rd
Tioga Ln
Chatham Ln
Aspel Rd
McCall Blvd
Vine St
Summit St
Fargo St
Dale St
Grand Ave
Noonridge Dr
Cannon Dr
Alta Vista Way
Cliff Top Ct
Almond Way
Maywood Ranch Rd
Lakehurst Ave
Packard St
Lakehurst
Foghorn
Steamb
Walker
Shipw
North Bay Ln
Stone Ln
Cider St
Northwinds Dr
Westwinds Dr
Trade Winds Dr
Sherman Rd
Avenida Tarbago
Via Real
Elm Dr
Spruce Dr
Oak Dr
Alta Ave
Mat Ct
Prepared By:
VCS Environmental
Map Created: September 2023
Data Sources: ESRI
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
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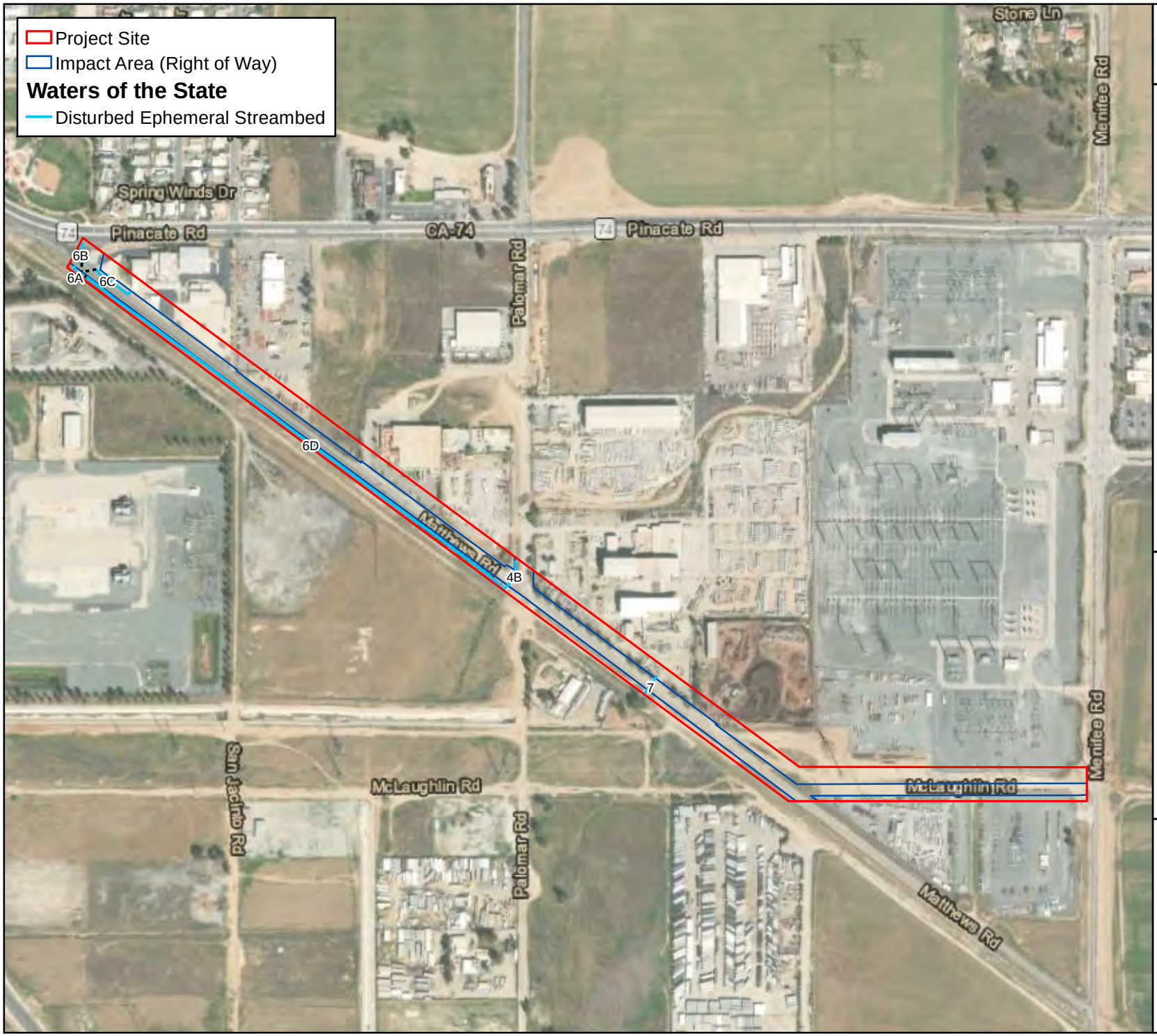
Menifee Valley
Additional Offsite Areas
Figure 8 Waters of the State Map



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Menifee Valley Additional Offsite Areas

Figure 8

Waters of the State Map

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Feet

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Map Date: September 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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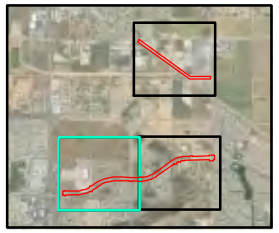

Figure 8

Waters of the State Map

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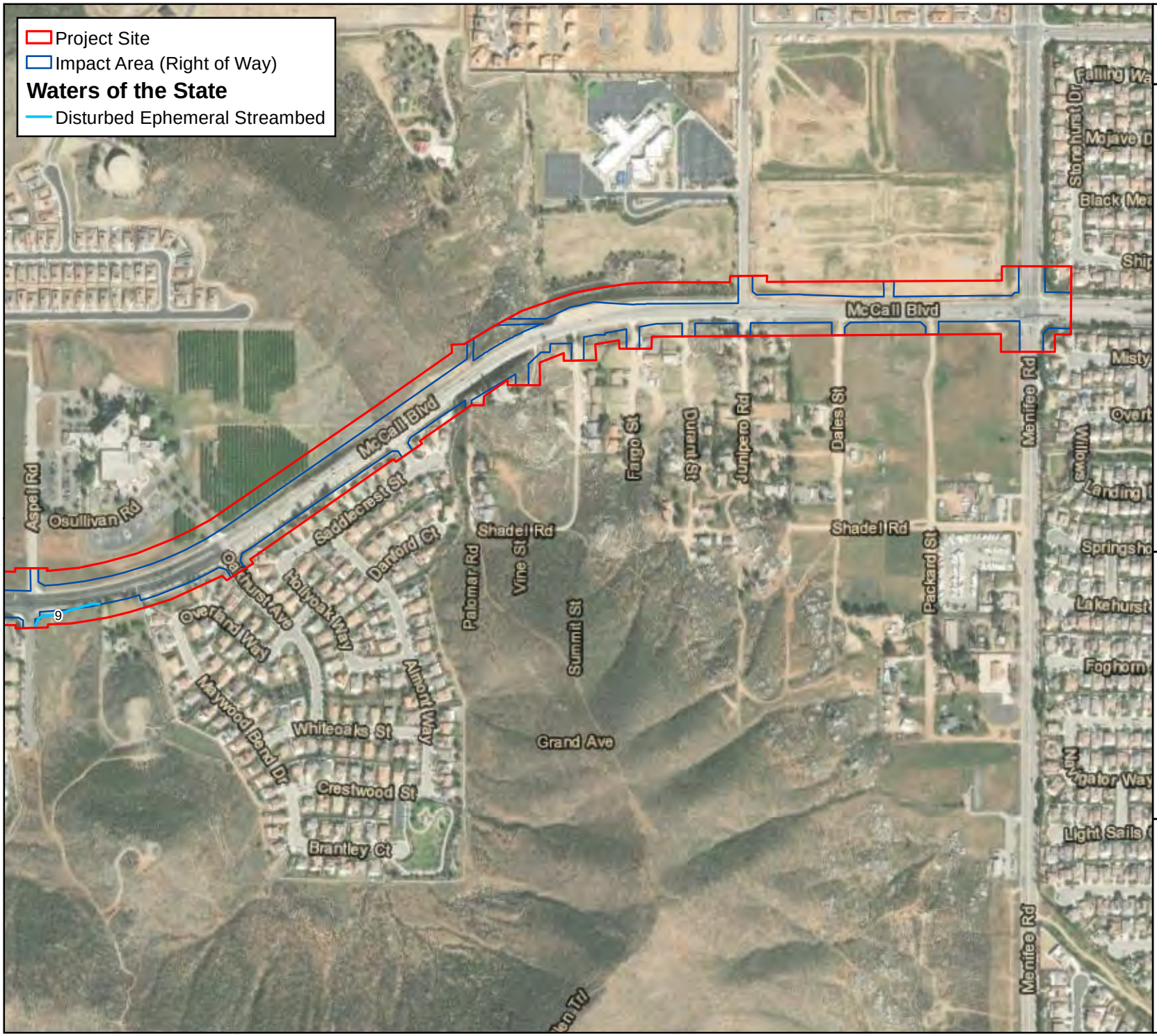
Data Sources: ESRI



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Menifee Valley Additional Offsite Areas

Figure 8

Waters of the State Map

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Map Date: September 2023
Data Sources: ESRI

Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, NWI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Menifee Valley
Additional Offsite Areas

Figure 9

NWI Map

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Menifee Valley Additional Offsite Areas

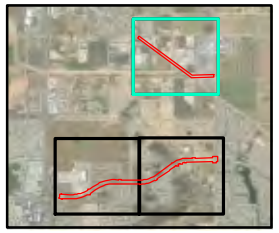

Figure 9

NWI Map

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Map Date: July 2023
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Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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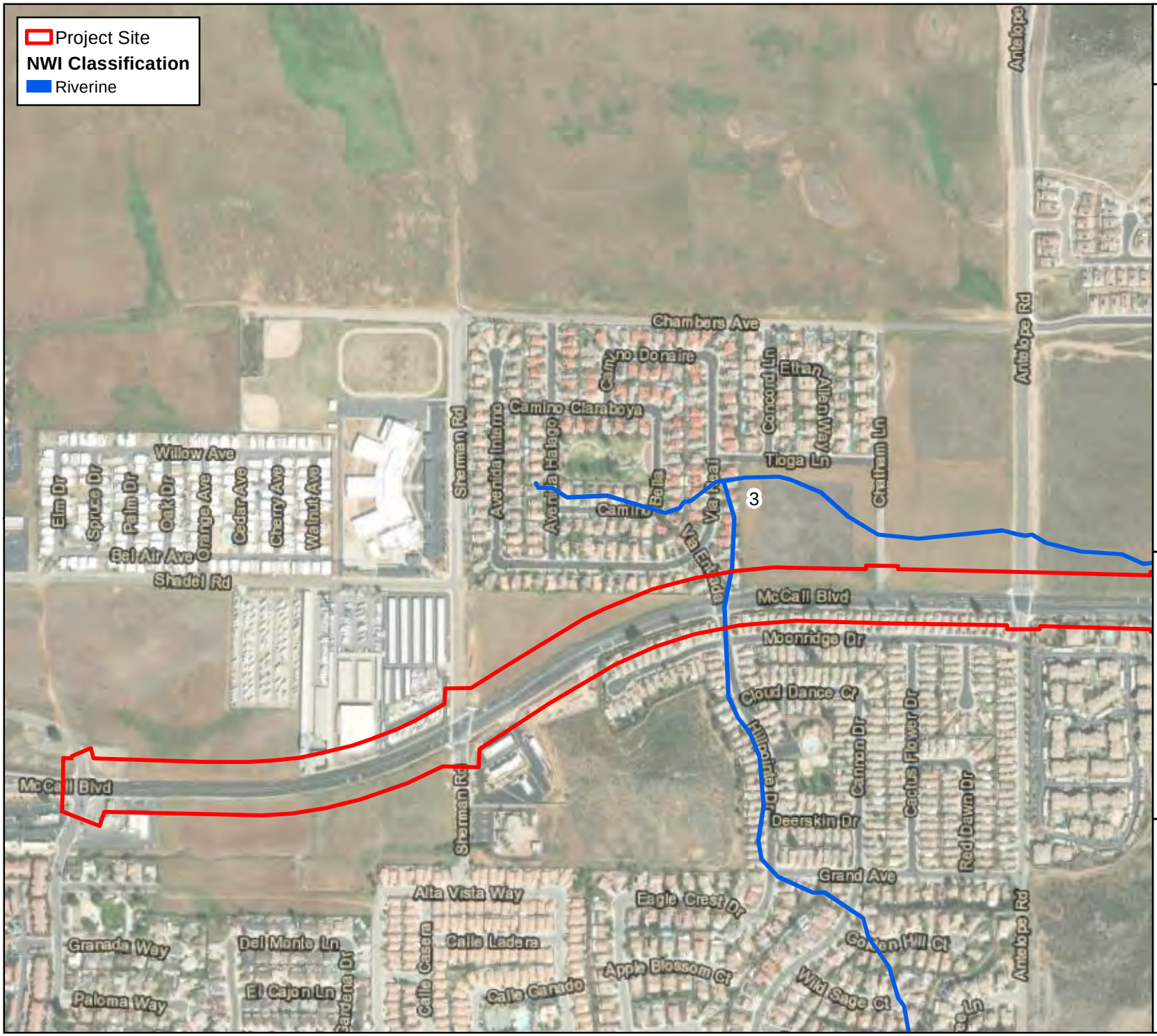

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Figure 9

NWI Map

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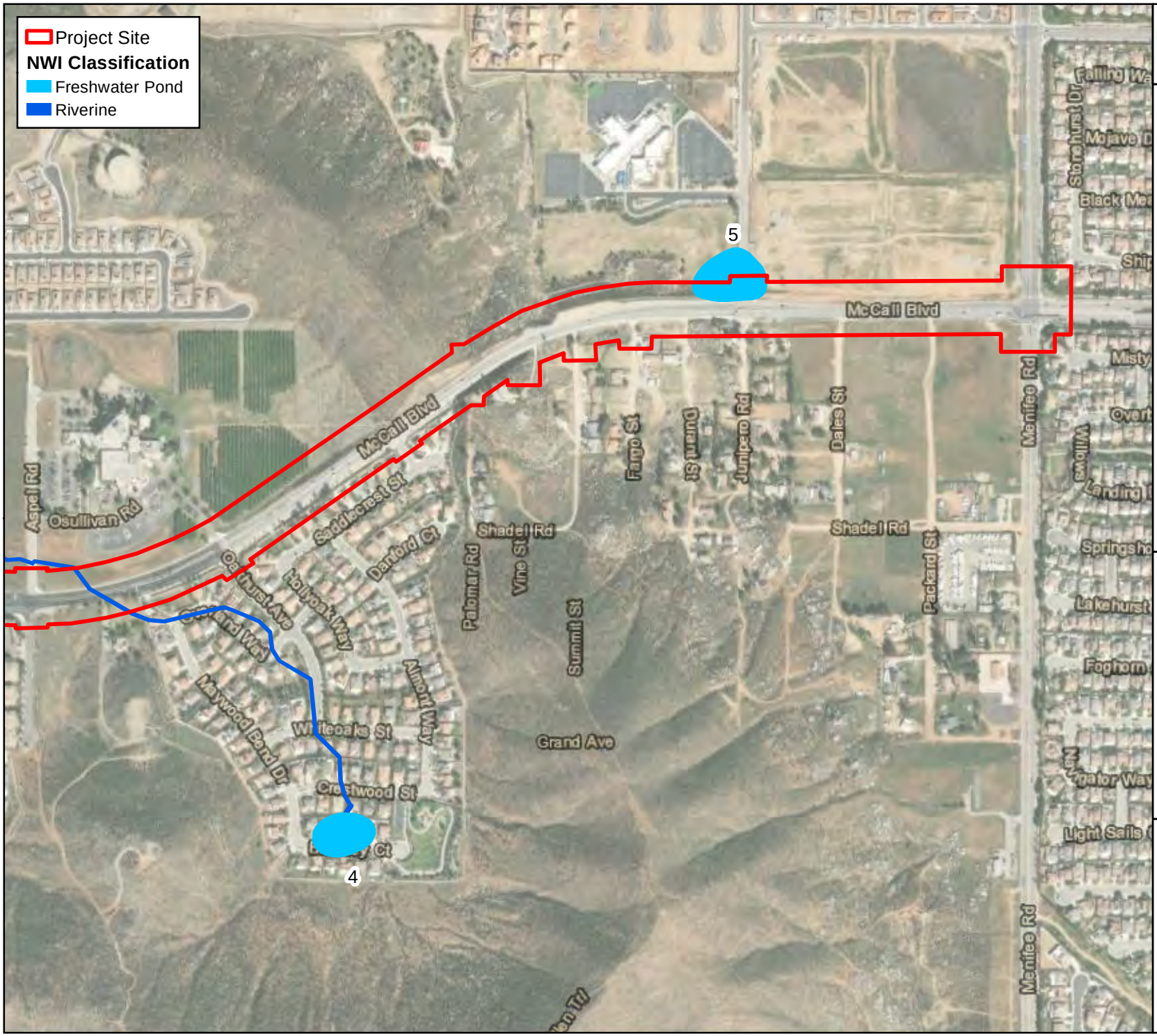

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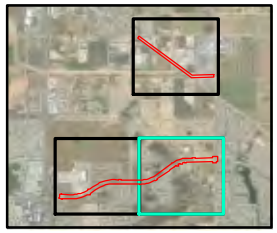

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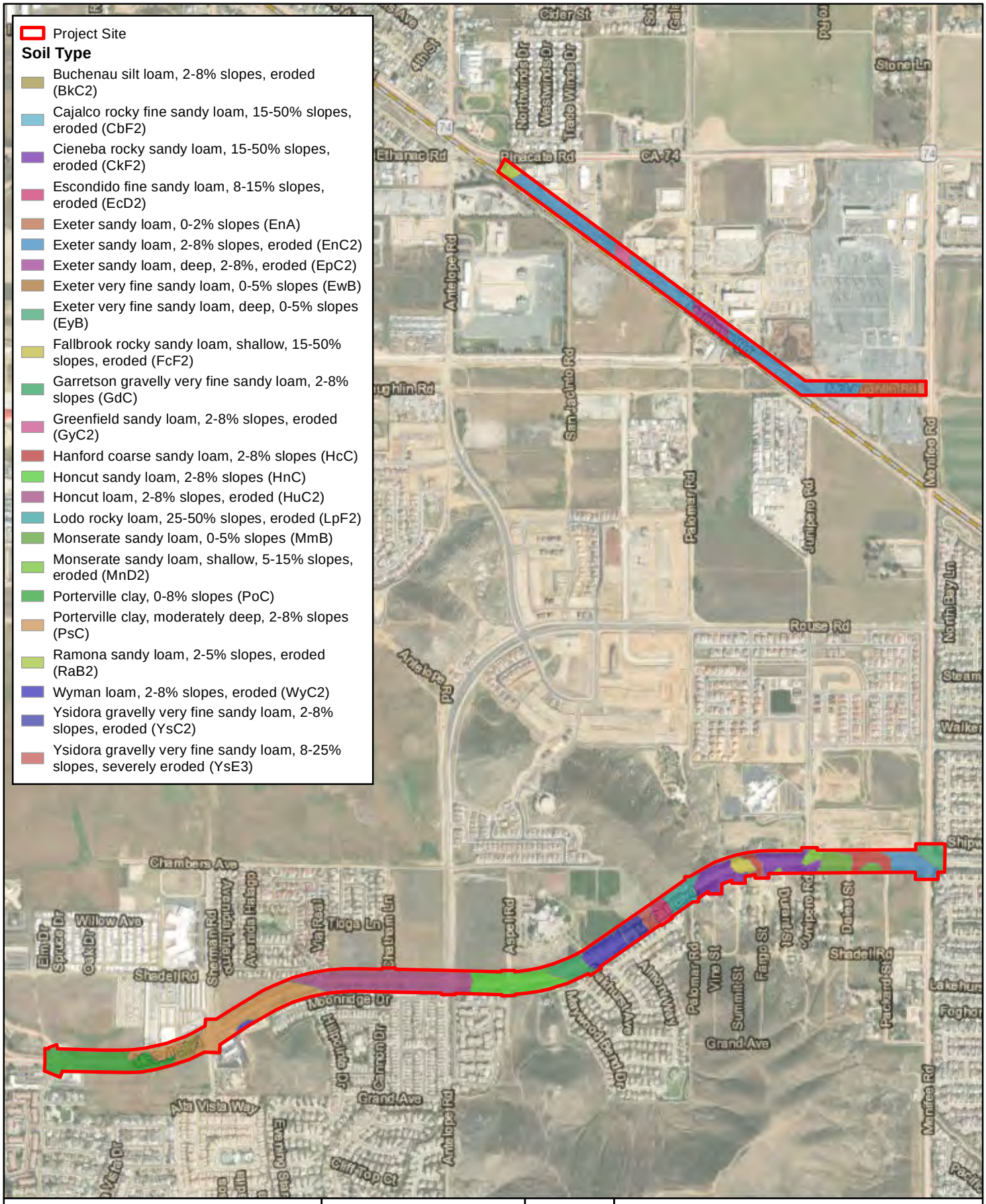
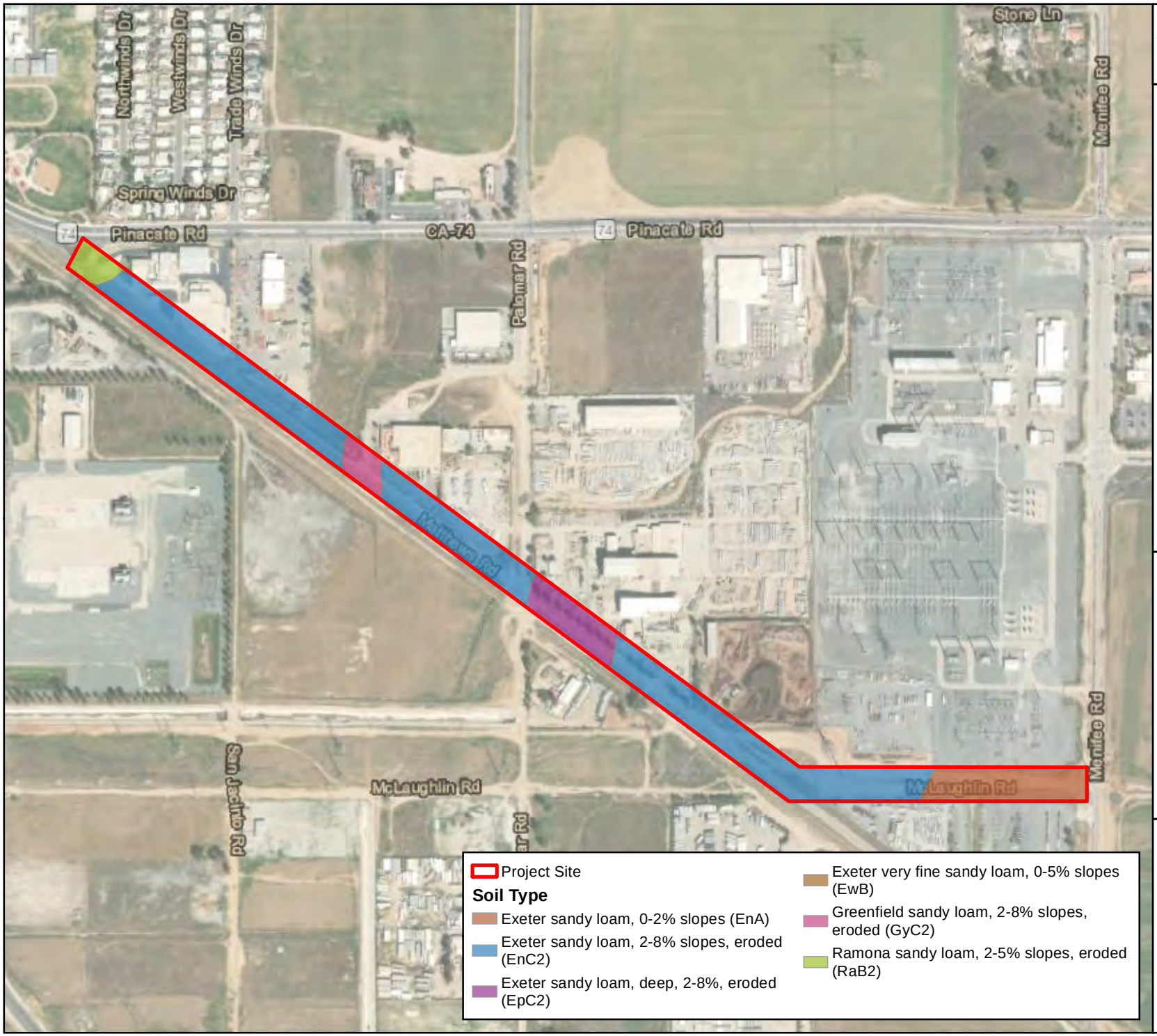


Menifee Valley
Additional Offsite Areas

Figure 10

Soil Map



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Menifee Valley Additional Offsite Areas

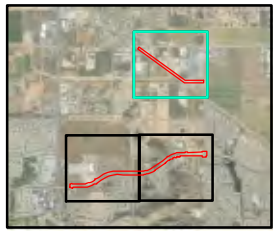

Figure 10

Soil Map

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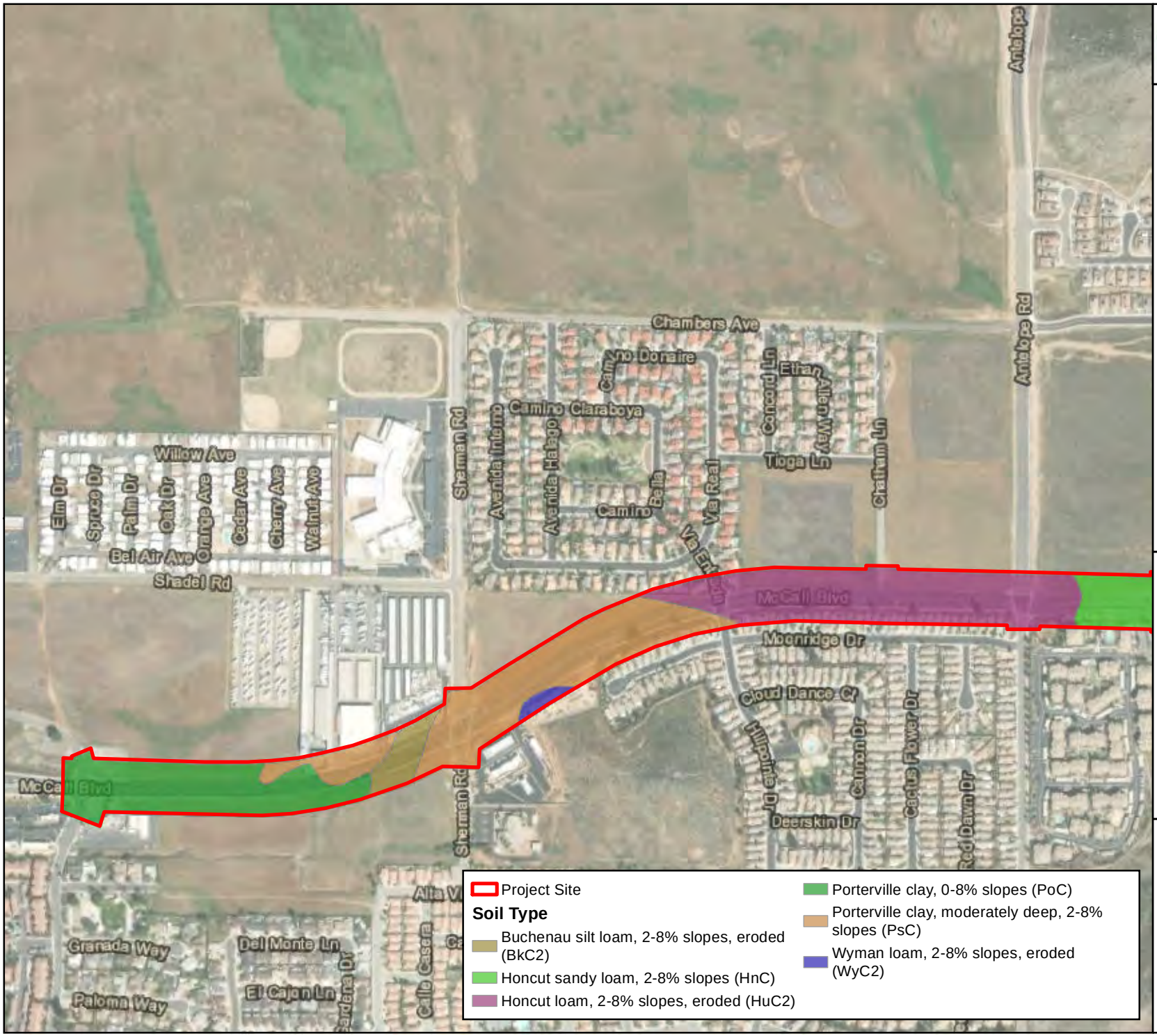
Map Date: July 2023
Data Sources: ESRI, NRCS

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

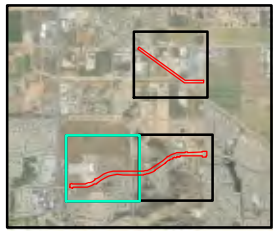

Figure 10

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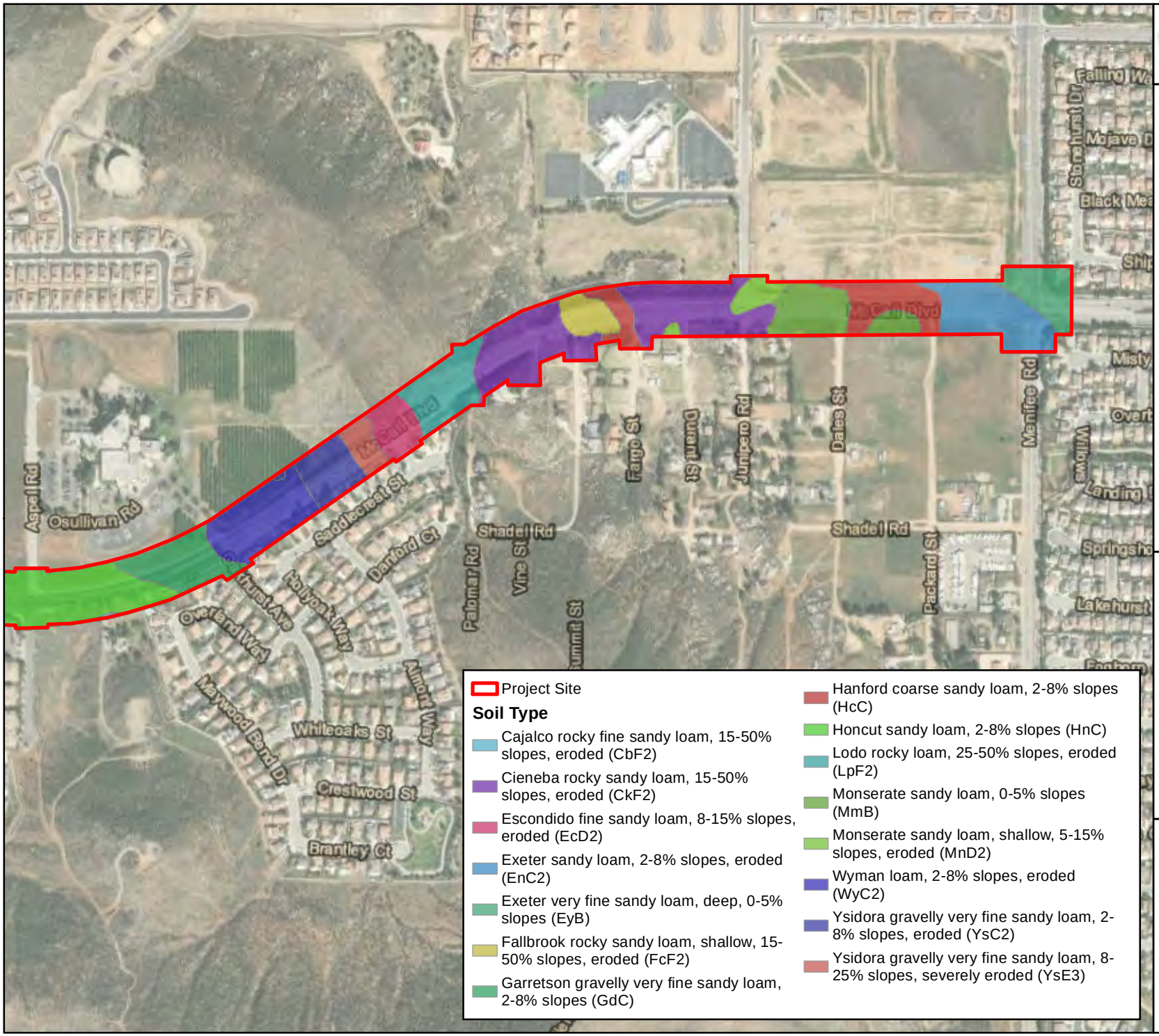

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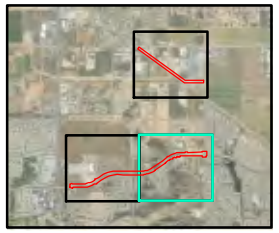

Figure 10

Soil Map

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Map Date: July 2023
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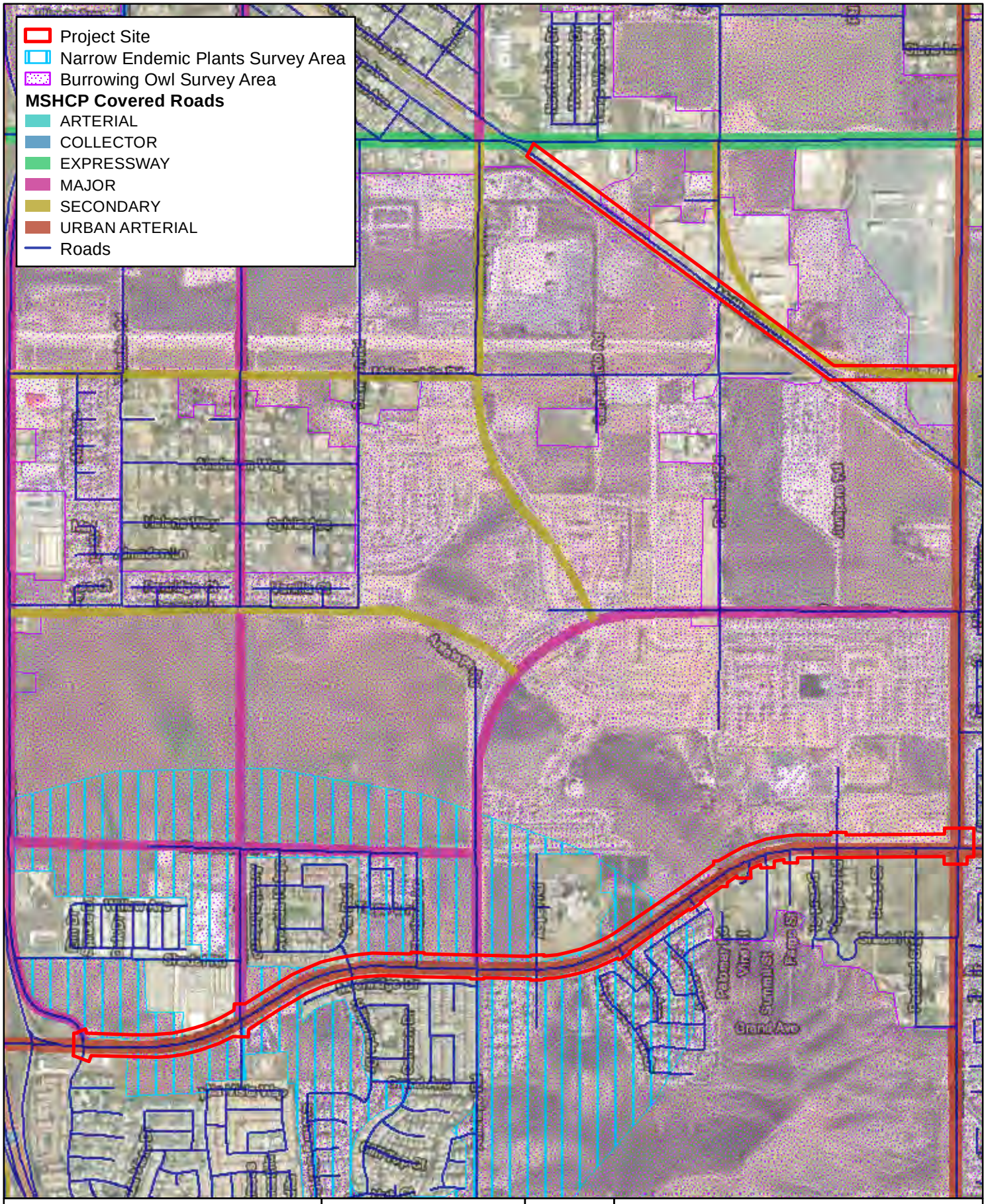

Prepared By:
VCS Environmental

Map Created: July 2023
Data Sources: ESRI, MSHCP

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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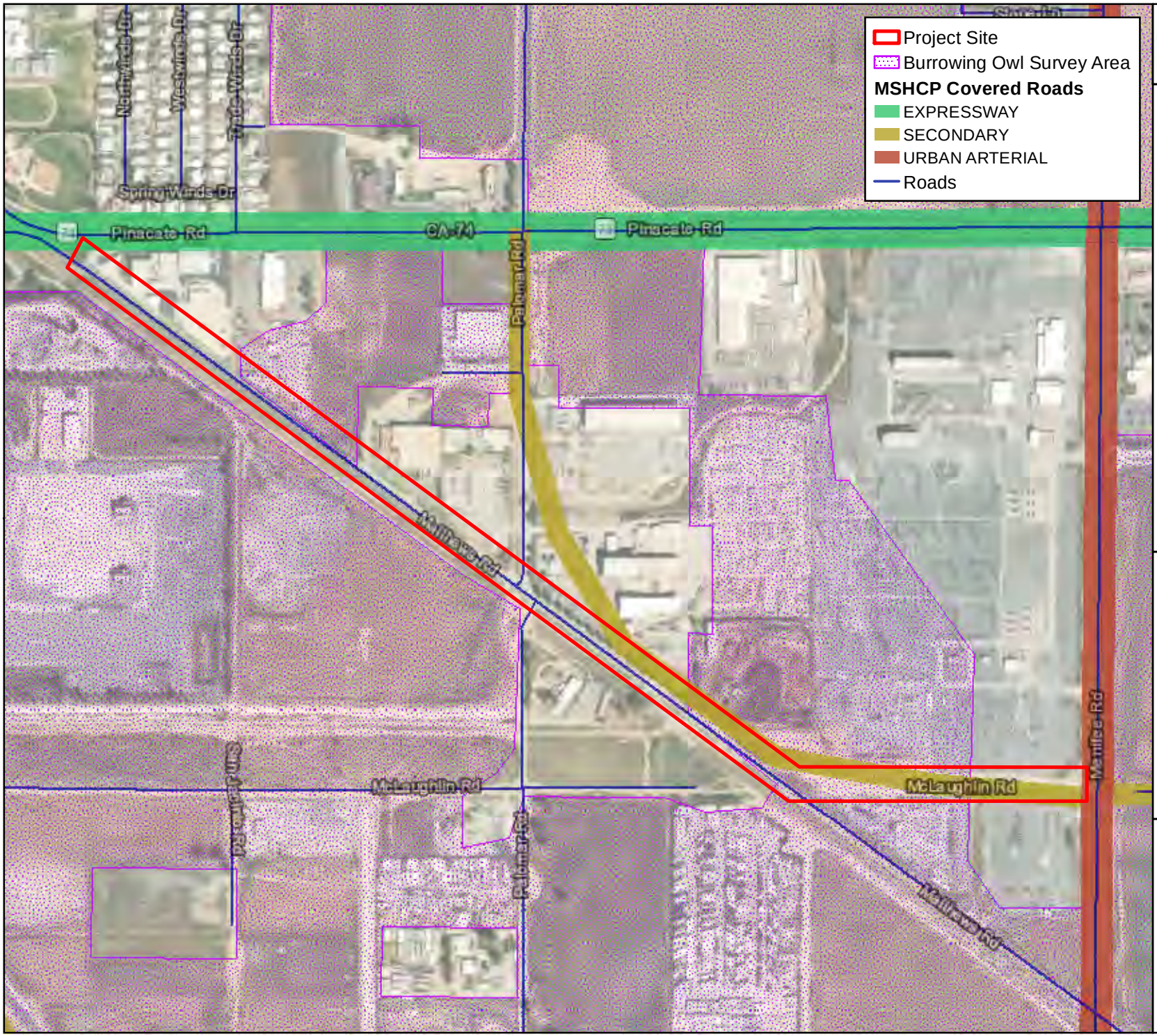
Menifee Valley
Additional Offsite Areas

Figure 11

MSHCP Map



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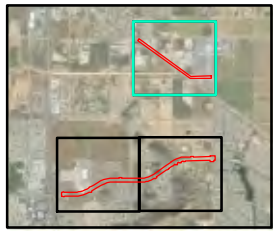

Figure 11

MSHCP Map

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Map Date: July 2023
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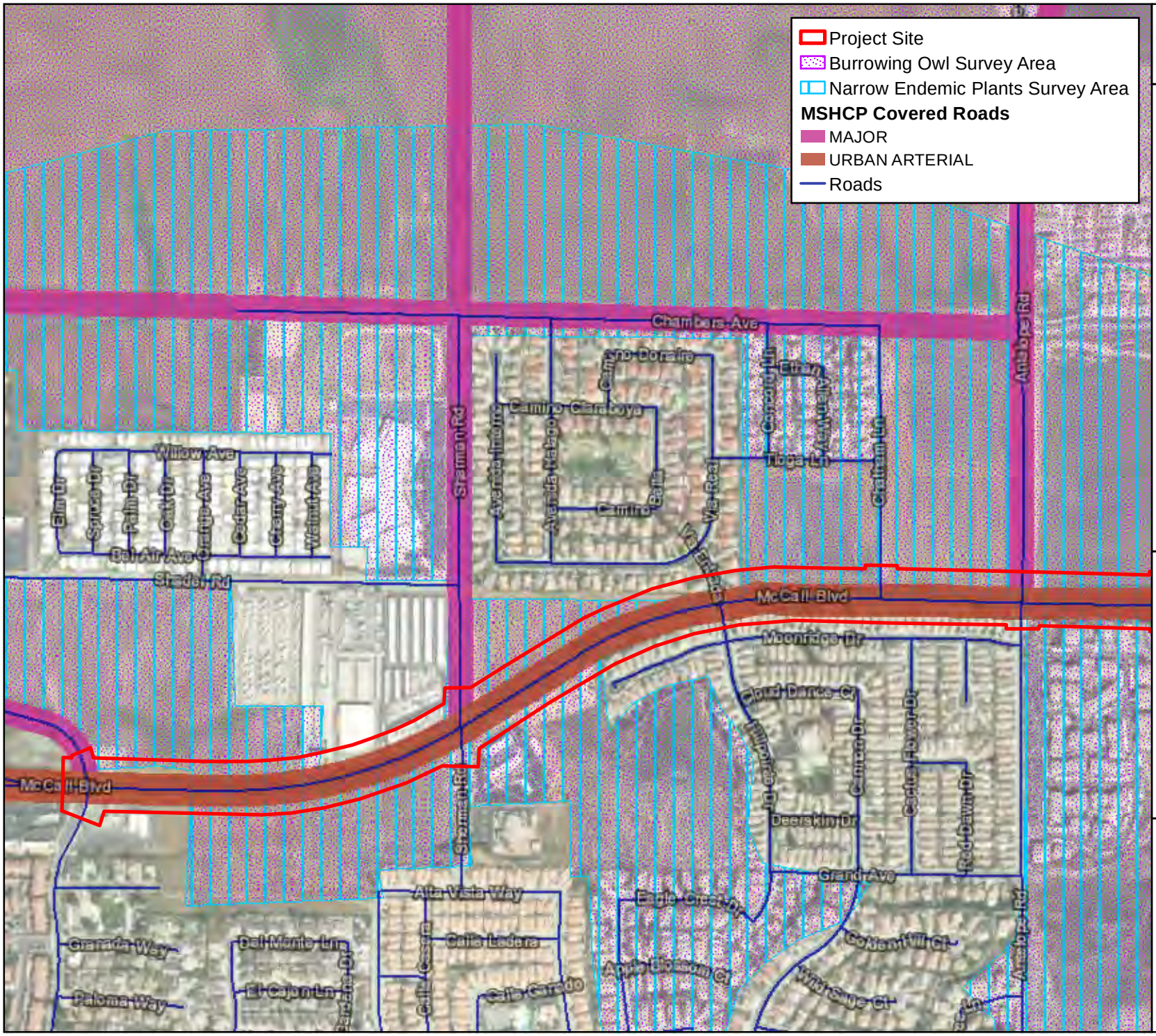
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Menifee Valley Additional Offsite Areas

Figure 11

MSHCP Map

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Map Date: July 2023
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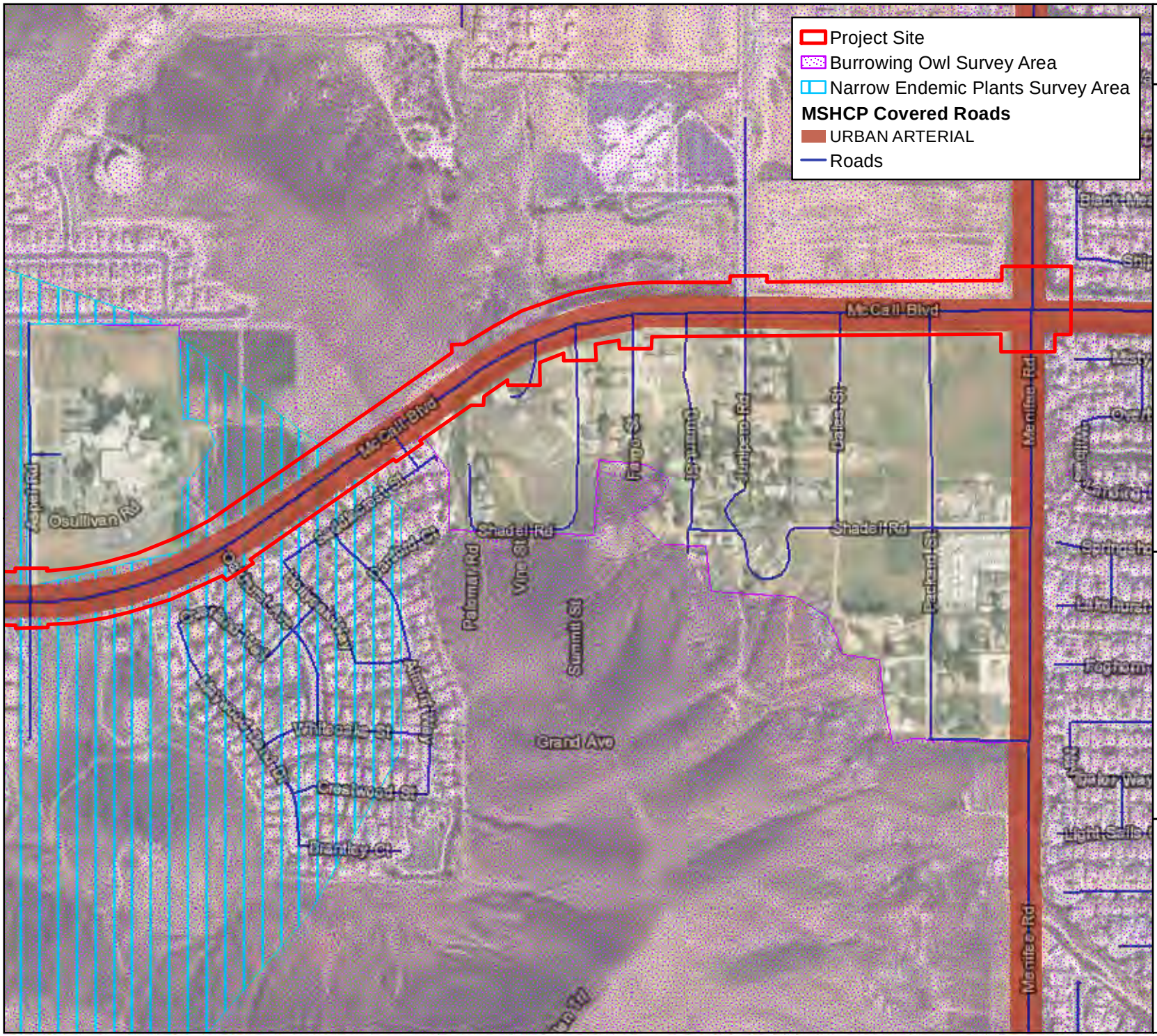

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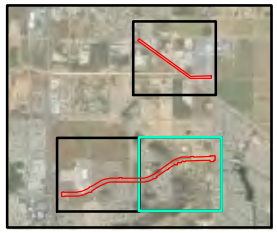

Figure 11

MSHCP Map

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Map Date: July 2023
Data Sources: ESRI, MSHCP

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community


Project Site
Photo Locations
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McCall Blvd
Chambers Ave
Shadel Rd
Noonridge Dr
Grand Ave
Alta Vista Way
Cliff Top Ct
Rouse Rd
McLaughlin Rd
Etchart Rd
Antelope Rd
Sherman Rd
Dawson Rd
San Jacinto Rd
Palomar Rd
Juniper Rd
Menifee Rd
Airstream Way
Helene Way
Sylvia Ave
Almaden Ln
Partridge Ct
Vanilla Ct
Stone Ln
CA-74
Tioga Ln
Via Real
Aspel Rd
Fargo St
Summit St
Vine St
Dales St
Packard St
Lakehurst
Foghorn
Pacific
Walker
Steam
Shipw
Prepared By:
VCS Environmental
Map Created: September 2023
Data Sources: ESRI, County of Riverside
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
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Menifee Valley
Additional Offsite Areas
Figure 12
Photolocation Map

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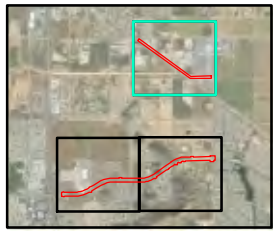

Figure 12

Photolocation Map

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Map Date: September 2023
Data Sources: ESRI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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Menifee Valley Additional Offsite Areas

Figure 12

Photolocation Map

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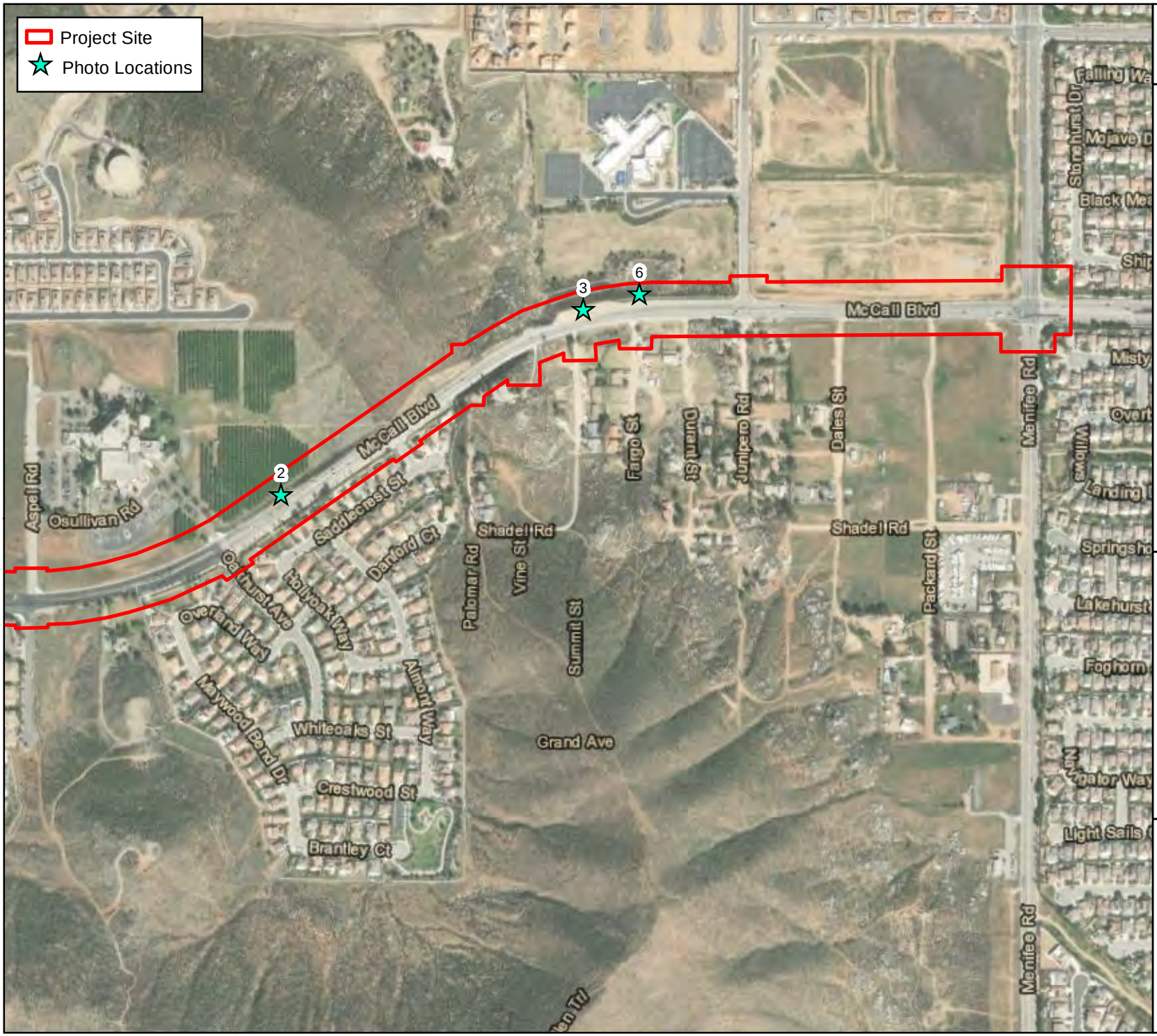

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Menifee Valley Additional Offsite Areas

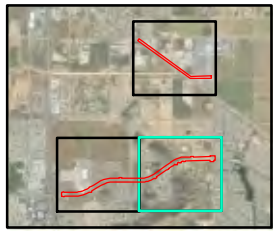

Figure 12

Photolocation Map

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Map Date: September 2023
Data Sources: ESRI

APPENDIX A

Site Photographs

Menifee Valley Specific Plan Project
Additional Offsite Areas

Site Photographs

Photo 1. Typical view of the Project Site along the McCall Boulevard right of way near Chatham Lane. The photograph shows disturbed/developed roadway, ornamental trees, and disturbed non-native weeds and grasses. Photo taken facing east.

Photo 2. Typical view of the Project Site along the McCall Boulevard right of way near Oak Hurst Avenue. The photograph shows disturbed/developed roadway, ornamental trees, and disturbed non-native weeds and grasses. In the background of the photo is a granitic hill where brittle bush scrub and buckwheat scrub communities are located. Photo taken facing east.

Photo 3. Typical view of the Project Site along the McCall Boulevard right of way near Summit Street. The photograph shows disturbed/developed roadway, ornamental trees, and disturbed non-native weeds and grasses. Photo taken facing east.

Photo 4. View of a disturbed non-native weeds and grasses adjacent to the McCall Boulevard right of way. The field is on the northeat corner of Sherman Road and McCall Boulevard. Photo taken facing east.

Photo 5. Example of numerous suitable burrowing owl burrows found in an offsite disturbed field near McCall Boulevard right of way. The field is on the corner of Sherman Road and McCall Boulevard. Photo taken facing south.

Photo 6. View of a slope containing both scrub and non-native plant species. The slope is on the corner of Junipero Road and McCall Boulevard. Photo taken facing northwest.

Photo 7. Typical view of disturbed/developed area along the right of way of McLaughlin Road near Menifee Road. Photo taken facing east.

Photo 8. Typical view of disturbed/devoloped area and disturbed non-native weeds and grasses as well as disturbed ephemeral streambed (Feature 6D) along the right away of Matthews Road near San Jacinto Road. Photo taken facing northwest.

Photo 9. View from the northwest corner of the Project site off of Matthews Road, showing disturbed ephemeral streambed (Feature 6B). Photo taken facing northwest.

Photo 10. Typical view of disturbed/devoloped area and disturbed non-native weeds and grasses along the right of way of Matthews Road near San Jacinto Road. Photo taken facing southeast.

Photo 11. View of a concrete lined drainage feature (Feature 7) facing southwest. The draiange is near the intersection of Matthews Road and Palomar Road.

APPENDIX B

Plant and Wildlife Species Observed within the Project Site

Plant Species Observed within the Project Site

Scientific Name	Common Name
Adoxaceae	Moschatel Family
Sambucus nigra subsp. caerulea	Mexican elderberry
Agavaceae	Agave Family
*Agave americana**	American century plant
Hesperaloe parviflora	Red yucca
Amaranthaceae	Amaranth Family
*Amaranthus albus**	Prostrate Pigweed
Anacardiaceae	Cashew Family
*Schinus molle**	Peruvian pepper tree
*Searsia lancea **	African sumac
Apocynaceae	Dogbane Family
*Nerium oleander**	Oleander
*Trachelospermum asiaticum**	Asiatic jasmine
Arecaceae	Palm Family
*Phoenix canariensis **	Canary island date palm
*Phoenix dactylifera**	Date palm
*Washingtonia robusta **	Mexican fan palm
Asclepiadaceae	Milkweed Family
*Aloe arborescens**	Candelabra aloe
Matelea biflora	Star milkvine
Asphodelaceae	Asparagales Family
*Hemerocallis lilioasphodelus**	Yellow daylily
Asteraceae (Compositae)	Sunflower Family
Ambrosia acanthicarpa	Annual bursage
*Anthemis cotula**	Stinking chamomile
Artemisia suksdorfii	Coastal Mugwort
Artemisia californica	Coastal sagebrush
Baccharis salicfolia subsp. salicfolia	Mule fat
*Carduus pycnocephalus subsp. Pycnocephalus**	Italian thistle
*Centaurea melitensis**	Maltese star-thistle
Corethrogyne filaginifolia	California aster
Deinandra fasciculata	Clustered tarweed

Scientific Name	Common Name
Deinandra kelloggii	Kellogg's tarweed
Deinandra paniculata†	San Diego tarweed
*Dimorphotheca fruticose**	Trailing African lily
Encelia farinosa	Brittlebush
Erigeron bonariensis	Asthmaweed
Erigeron canadensis	Horseweed
*Eriocoma hymenoides**	Indian ricegrass
*Euryops pectinatus**	Grey-leaved euryops
*Hedypnois cretica**	Cretanweed
Helianthus annuus	Common sunflower
Heterotheca grandiflora	Telegraphweed
Heterotheca sessiliflora	False goldenaster
*Lactuca serriola**	Prickly Lettuce
*Oncosiphon piluliferum**	Stinknet
Pseudognaphalium microcephalum	Wright's Cudweed
*Silybum marianum**	Blessed milkthistle
*Sonchus oleraceus**	Common sowthistle
*Stephanomeria exigua**	Small wirelettuce
*Taraxacum erythrospermum**	Red-seeded dandelion
Taraxacum officinale	Common dandelion
Uropappus lindleyi	Silver puffs
*Verbesina encelioides**	Golden crownbeard
Bignoniaceae	Bigonia Family
Chilopsis linearis	Desert willow
*Tecoma capensis**	Cape honeysuckle
Boraginaceae	Borage Family
Amsinckia intermedia	Common fiddleneck
Heliotropium curassavicum var. oculatum	Seaside heliotrope
Phacelia cicutaria	Caterpillar Phacelia
Phacelia distans	Distant phacelia
Brassicaceae	Mustard Family
*Brassica nigra**	Black mustard
*Hirshfelida incana**	Short-pod mustard
*Lepidium didymum**	Lesser swinecress
Lepidium nitidum	Shining pepperweed
*Raphanus raphanostrum**	Wild radish
*Sisymbrium irio**	London rocket
*Sisymbrium orientale**	Indian hedgemustard
Cactaceae	Cactus Family

Scientific Name	Common Name
*Cleistocactus buchtienii**	Wooly torch
Lophocereus schottii	Senita cactus
Cylindropuntia sp.	Cholla cactus
Caryophyllaceae	Pink Family
*Herniaria 3irsute**	Hairy rupturewort
*Polycarpon tetraphyllum var. tetraphyllum**	Four-leaved allseed
Chenopodiaceae	Goosefoot Family
*Atriplex suberecta**	Peregrine saltbush
*Chenopodium album**	Lambs' quarters
*Salsola tragus**	Russian thistle (tumbleweed)
Convolvulaceae	Morning Glory Family
*Convolvulus arvensis**	Field bindweed
Crassulaceae	Stonecrop Family
Dudleya lanceolata	Lanceleaf liveforever
Cyperaceae	Sedge Family
Cyperus eragrostis	Tall flatsedge
Scirpoides holoschoenus	Round-headed club rush
Cucurbitaeae	Gourd Family
Cucurbita palmata	Coyote melon
Cupressaceae	Cypress Family
*Juniperus horizontalis**	Creeping juniper
Euphorbiaceae	Spurge Family
Chamaesyce albomarginata	Whitemargin sandmat
Chamaesyce maculata	Spotted sandmat
Croton setiger	Turkey mullein
*Ricinus communis**	Castor bean
Fagaceae	Beech family
Quercus dumosa	Nuttal's scrub oak
Fabaceae	Legume Family
*Acacia redolens**	Vanilla scented wattle
Lotus scoparius	Deerweed
Lotus hamatus	San Diego bird's-foot trefoil
Astragalus pomonensis	Pomona milkvetch

Scientific Name	Common Name
Lupinus bicolor	Miniature lupine
*Medicago lupulina**	Black medick
*Medicago sativa**	Alfalfa
Parkinsonia aculeata	Mexican palo verde
*Spartium junceum**	Spanish broom
*Trifolium fragiferum**	Strawberry clover
Geraniaceae	Geranium Family
*Erodium Cicutarium**	Redstem stork's-bill
Iridaceae	Iris Family
*Dietes bicolor**	Yellow fortnight lily
*Dietes iridiodes**	Small fortnight lily
Lamiaceae	Mint Family
Salvia apiana	White sage
*Salvia gregii**	Autumn sage
Salvia clevelandii	Cleveland sage
Salvia leucantha	Mexican bush sage
*Salvia mellifera**	Black sage
*Salvia rosmarinus**	Rosemary
Salvia texana	Texas sage
Trichostema lanceolatum	Vinegarweed
Lauraceae	Laurel Family
*Camphora officinarum**	Camphor tree
Lythraceae	Loosestrife Family
*Lagerstroemia indica**	Crape myrtle
Malvaceae	Mallow Family
*Malva parviflora**	Cheeseweed mallow
Meliaceae	Mahogany Family
*Melia azedarach**	China berry tree
Moraceae	Fig Family
*Ficus carica**	Edible fig
*Morus indica**	Korean mulberry
Myrtaceae	Myrtle Family
*Eucalyptus camaldulensis**	River red gum
*Melaleuca citrina**	Crimson bottlebrush

Scientific Name	Common Name
Melaleuca nesophila	Showy honey-myrtle
Nyctaginaceae	Four O'Clock Familty
*Bouganvillea glabra**	Lesser bougainvillea
Oleaceae	Olive Family
*Fraxinus angustifolia**	Narrow-leaved ash
*Fraxinus velutina**	Velvet ash
*Ligustrum lucidum**	Broad leaf pivet
*Olea europaea**	Olive
Oxalidaceae	Wood Sorrel Family
*Oxalis corniculate**	Creeping woodsorrel
Pinaceae	Pine Family
*Pinus halepensis**	Aleppo pine
*Pinus patula**	Jelecote pine
Platanaceae	Plane Tree Family
*Platanus x hispanica**	London plane
*Platanus racemose**	Western Sycamore
Poaceae	Grass Family
*Avena barbata**	Slender oat
*Avena fatua**	Wild oat
*Bromus catharticus**	Rescue brome
*Bromus diandrus**	Ripgut brome
*Bromus madritensis ssp. rubens**	Red brome
*Cynodon dactylon**	Bermuda grass
*Festuca perennis**	Perennial ryegrass
*Hordeum murinum**	Mouse barely
*Pennisetum clandestinum**	Kiyuku grass
Setaria parviflora	Marsh bristlegrass
*Schismus barbatus**	Common Mediterranean grass
*Schizachyrium scoparium**	Little bluestem
Sporobulus pumilus	Saltmeadow cordgrass
*Stenotarphrum secundatum**	Saint Augstine grass
Stipa tenuissima	Mexican feathergrass
*Triticum aestivum**	Bread wheat
Polygonaceae	Knotweed Family
Eriogonum fasciculatum	Eastern Mojave buckwheat
Eriogonum gracile	Slender woolly buckwheat

Scientific Name	Common Name
*Polygonum aviculare**	Prostrate knotweed
Polypodiaceae	Fern Family
*Platycerium superbum**	Staghorn fern
Portulacaceae	Purslane Family
Portulaca oleracea	Little hogweed
Proteaceae	Proteas Family
*Grevillea robusta**	Silk oak
Rosaceae	Rose Family
Heteromeles arbutifolia	Toyon
Photina x fraseri	Red tip photina
*Prunus cerasifera**	Cherry plum
*Rhaphiolepis indica**	Indian hawthorn
*Rosa chinensis**	China rose
Rutaceae	Citrus Family
*Citrus x sinensis**	Orange tree
Salicaceae	Willow Family
Populus fremontii subsp. fremontii	Alamo or Fremont Cottonwood
Salix gooddingii	Goodding's willow
Simaroubaceae	Quassia Family
*Ailanthus altissima**	Tree of heaven
Solanaceae	Nightshade Family
*Datura Stramonium**	Jimson weed
Datura wrightii	Sacred datura
*Nicotiana glauca**	Tree tobacco
Tamaricaceae	Tamarisk Family
*Tamarisk aphylla**	Athel tamarisk
*Tamarix ramosissima**	Saltcedar
Ulmaceae	Elm Family
*Ulmus parvifolia**	Chinese elm
Verbenaceae	Verbena Family
*Lantana montevidensis**	Creeping lantana

Scientific Name	Common Name
Vitaceae	Grape Family
*Parthenocissus tricuspidate**	Boston ivy
Zygophyllaceae	Caltrop Family
*Tribulus terrestris**	Puncturevine

* non-native species

† Sensitive species

Wildlife Species Observed/Detected within the Project Site

Scientific Name	Common Name
Birds	
Accipitridae	Accipitrid Family
Buteo jamaicensis	Red-tailed hawk
Buteo lineatus	Red-shouldered hawk
Aegithalidae	Bushtit Family
Psaltriparus minimus	American bushtit
Alaudidae	Lark Family
Eremophila alpestris†	Horned lark
Anatidae	Water Bird (Duck) Family
Anas platyrhynchos	mallard
Branta canadensis	Canadian goose
Charadriidae	Plover and Lapwing Family
Charadrius vociferus	Killdeer
Columbidae	Dove Family
*Columba livia**	Common pigeon
Zenaida macroura	Mourning dove
Corvidae	Crow Family
Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Falconidae	Falcon family
Falco sparverius	American kestrel
Fringillidae	True Finch Family
Haemorhous mexicanus	House finch
Spinus psaltria	Lesser goldfinch

Scientific Name	Common Name
Hirundinidae	Swallow Family
Hirundo rustica	Barn swallow
Petrochelidon pyrrhonota	Cliff swallow
Icteridae	New World Blackbird Family
Icterus cucullatus	Hooded oriole
Sturnella neglecta	Western meadowlark
Quiscalus quiscula	Common grackle
Mimidae	Mimid Family
Mimus polyglottos	Northern mockingbird
Passerellidae	New World Sparrow Family
Melospiza melodia	Song sparrow
Pipilo maculatus	Spotted towhee
Passeridae	Old World Sparrow Family
*Passer domesticus**	House sparrow
Trochilidae	Hummingbird Family
Calypte anna	Anna's hummingbird
Calypte costae†	Costa's hummingbird
Troglodytidae	Wren Family
Thryomanes bewickii	Bewick's wren
Tyrannidae	Tyrant Flycatcher Family
Sayornis nigricans	Black phoebe
Tyrannus verticalis	Western kingbird
Reptiles	
Phrynosomatidae	North American Spiny Lizard Family
Sceloporus occidentalis	Western fence lizard

Scientific Name	Common Name
Mammals	
Sciuridae	Squirrel Family
Otospermophilus beecheyi	California ground squirrel
Leporidae	Rabbit Family
Sylvilagus audubonii	Desert cottontail

*non-native species
†Sensitive species

APPENDIX C

Special Status Species Potential Occurrence Determination

Special Status Species Potential Occurrence Determination

This table summarizes conclusions from analysis and field surveys regarding the potential occurrence of special status species within the Project site. During the field surveys, the potential for special status species to occur within the Project site was assessed based on the following criteria:

- Present: observed on the site during the field surveys, or recorded on-site by other qualified biologists.
- High potential to occur: observed in similar habitat in the region by a qualified biologist, or habitat on the site is a type often utilized by the species and the site is within the known distribution and elevation range of the species.
- Moderate potential to occur: reported sightings in surrounding region, or the site is within the known distribution and elevation range of the species and habitat on the site is a type occasionally used by or typical of the species.
- Low potential to occur: the site is within the known distribution and elevation range of the species but habitat on the site is rarely used by the species, or there are no known recorded occurrences of the species within or adjacent to the site.
- Absent: a focused study failed to detect the species or no suitable habitat is present.
- Unknown: the species' distributional/elevation range and habitat are poorly known.

Even with field surveys, biologists assess the *probability* of occurrence rather than make a definitive conclusion about species' presence or absence. Failure to detect the presence of the species is not definitive and may be due to variable effects associated with fire, rainfall patterns, and/or season.

Special Status Species: Potential to Occur within the Project Site

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
PLANTS				
Allium munzii	Munz's onion	FE, ST, CRPR: 1B.1 MSHCP: Group 3	It is endemic to western Riverside County where it grows in the coastal sage scrub, grassland or juniper woodland communities of the local hills and mountains. Occur on clay and cobbly clay soils which include the following series: Altamont, Auld, Bosanko, Claypit, and Porterville. Elevation: 300 - 900 meters Blooming period: April - May	*Absent.* a focused study failed to detect the species. Neither grassland nor juniper woodland communities are present on site, but a small amount of coastal sage scrub is, however, the Site is highly disturbed.
Ambrosia pumila	San Diego ambrosia	FE, CRPR: 1B.1 MSHCP: Group 3	Perennial herb. Range extends from Riverside County through San Diego County into Baja California. It generally occurs in chaparral, coastal scrub and valley and foothill grasslands, usually where exposed to seasonal flooding. This species inhabits sandy loam soils or clay soils and has been known to tolerate alkaline conditions. In valleys, it persists where disturbance has been superficial. Sometimes, this species can be found on margins or near vernal pools. Elevation: 50 - 600 meters Blooming period: April - July	*Absent.* a focused study failed to detect the species. Neither grassland nor chapparal communities are present on site, but a small amount of coastal sage scrub is, however, the Site is highly disturbed.
Atriplex coronate var. notatior	San Jacinto Valley crownscale	FE, CRPR: 1B.1 MSCHP: Group 3	Suitable habitat for the San Jacinto Valley crownscale includes floodplains (seasonal wetlands) dominated by alkali scrub, alkali playas, vernal pools, and alkali grasslands. It is endemic to western Riverside County and is restricted to the San Jacinto, Perris, Menifee, and Elsinore Valleys. Restricted to highly alkaline, silty-clay soils in association with the Traver-Domino-Willows soil association; the majority (approximately 80 percent) of the populations being associated with the Willows soil series. Elevation: 400 - 500 meters Blooming period: April - August	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of alkali scrub, alkali playas, vernal pools, or alkali grasslands is present. Site highly disturbed.
Brodiaea filifolia	thread-leaved brodiaea	FT, SE, CRPR: 1B.1, MSCHP: Group 3	Perennial bulbiferous herb. Found in floodplains in semi-alkaline mudflats, vernal pools, mesic southern needlegrass grassland, mixed native-nonnative grassland, alkali grassland,	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
			and alluvial fan sage scrub plant communities. Requires very heavy clay soils. The range of this species extends from the foothills of the San Gabriel Mountains at Glendora in Los Angeles County, east to Arrowhead Hot Springs in the western foothills of the San Bernardino Mountains in San Bernardino County, and south through eastern Orange and western Riverside Counties to the City of San Diego. Elevation: 25 – 860 meters Blooming period: March - June	alkaline mudflats, vernal pools, mesic southern needlegrass grassland, alkali grassland, or alluvial fan sage scrub is present, and the Site highly disturbed.
Caulanthus simulans	Payson's jewelflower	CRPR: 4.2, FSS MSHCP: Group 1	Sandy, granitic habitats in chaparral and coastal scrub, and pinyon/juniper woodland. Elevation: 90 - 2200 meters (CNPS); 400 – 2200 meters (Jepson eFlora) Blooming period: (Feb)March – May (Jun)	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of chapparal is present. Some coastal sage scrub exists; however, the Site is highly disturbed.
Centromadia pungens ssp. laevis	smooth tarplant	CRPR: 1B.1 MSHCP Group 3	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland Elevation: 0-640 meters Blooming Period: Apr-Sep	*Absent:. a* study failed to detect the species and no suitable habitat in the form of Chenopod scrub, meadows and seeps, playas, riparian woodland, or foothill grassland is present. Site highly disturbed.
Chorizanthe parryi var. parryi	Parry's spineflower	CRPR: 1B.1, BLMS, FSS MSHCP: Group 2	Parry's spineflower occurs within the alluvial chaparral and scrub of the San Gabriel, San Bernardino, and San Jacinto Mountains. Elevation: 90 - 800 meters Blooming period: April - June (CNPS); May – June (Jepson eFlora)	*Absen*t. a focused study failed to detect the species and no suitable habitat in the form of alluvial chapparal or scrub is present. Site highly disturbed.
Chorizanthe polygonoides var. longispina	long spined spineflower	CRPR: 1B.2, BLMS MSHCP: Group 2	Long spined spineflower is associated primarily with sand or heavy, often rocky, clay soils in southern needlegrass grassland, and openings in coastal sage scrub, and chaparral. Elevation: 30 - 1530 meters Blooming period: April – July (CNPS); April – June (Jepson eFlora)	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of southern needlegrass grassland or chaparral is present. Some

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
				sage scrub exists but the Site is highly disturbed.
Convolvulus simulans	small-flowered morning-glory	CRPR: 4.2 MSHCP: Group 2	Annual herb native to California and Baja California. Found in clay substrates (occasionally serpentine) in chaparral, coastal scrub, and valley and foothill grassland. Rare in southern California. Threatened by development and vehicles. Elevation: 30 - 740 meters (CNPS); 30 – 875 (Jepson eFlora) Blooming period: March – July; April – June (Jepson eFlora)	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of chaparral, or valley and foothill grassland is present. Some sage scrub exists but the Site is highly disturbed.
Deinandra paniculata	San Diego Tarplant	CRPR: 4.2	Coastal scrub, valley and foothill grassland, vernal pools Elevation: 25-940 meters Blooming Period: (Mar)Apr - May	*Present.* Observed during rare plant surveys along McCall Boulevard. Suitable habitat in the form of coastal scrub. No valley and grassland foothills or vernal pools.
Dudleya multicaulis	many-stemmed dudleya	CRPR: 1B.2, BLMS, FSS MSHCP: Group 3	Many-stemmed dudleya is often associated with clay soils in barrens, rocky places, and ridgelines as well as thinly vegetated openings in chaparral, coastal sage scrub, and southern needlegrass grasslands on clay soils. Elevation: 15 – 790 meters (CNPS); < 600 meters (Jepson eFlora) Blooming period: April - July (CNPS); May – June (Jepson eFlora)	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of chaparral or southern needlegrass grasslands is present. Some sage scrub exists but the Site is highly disturbed.
Harpagonella palmeri	Palmer's grapplinghook	CRPR: 4.2 MSHCP: Group 2	Palmer's grapplinghook is associated with clay and cobbly clay soils in chaparral, coastal sage scrub, valley and foothill grasslands, and scrub oak woodland. Elevation: 20 – 955 meters (CNPS); < 1000 m (Jepson eFlora) Blooming period: March to May (CNPS); March – April (Jepson eFlora)	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of chaparral, valley and foothill grasslands, or scrub oak woodland is present. Some sage scrub exists but the Site is highly disturbed.
Juglans californica var *californica*	California black walnut / Southern California black walnut	CRPR: 4.2 MSHCP: Group 2	Perennial deciduous tree endemic to California. Habitat includes alluvial substrates, chaparral, cismontane woodland, coastal scrub, and riparian woodland. Threatened by urbanization, grazing, non-native plants, and possibly by lack of natural reproduction.	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of alluvial substrates, chaparral, cismontane woodland, or

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
			Elevation: 30 - 900 meters Blooming period: March - August (CNPS); Mar – May (Jepson eFlora)	riparian woodland is present. Some sage scrub exists but the Site is highly disturbed.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	CRPR: 1B.1, BLMS MSHCP: Group 3	Coulter's goldfields is associated with low-lying alkali habitats along the coast and in inland valleys. Most of the populations are associated with coastal salt marsh. In Riverside County, Coulter's goldfields occur primarily in highly alkaline, silty-clay soils in association with Traver, Domino and Willows soils. Most Riverside County populations are associated with the Willows soil series. Coulter's goldfields occur primarily in the alkali vernal plains community. Elevation: 1 – 1200 meters (CNPS); < 1000 m (Jepson eFlora) Blooming period: February – June (CNPS); April – May (Jepson eFlora)	*Absent*. a focused study failed to detect the species and no suitable habitat in the form of coastal salt marsh is present. Site highly disturbed.
Lepidium virginicum var. robinsonii	Robinson's peppergrass	CRPR: 4.3	Annual herb occurring in dry sandy or thin soils in coastal sage scrub and chaparral. Elevation: 1 – 885 meters (CNPS); < 2800 m (Jepson eFlora) Blooming period: January – July (CNPS); Mar – Jun (Jepson eFlora)	*Absent*. a focused study failed to detect the species and no suitable habitat in the form of chapparal is present. Some coastal sage scrub exists on site but the Site is highly disturbed.
Microseris douglasii var. platycarpha	small-flowered microseris	CRPR:4.2 MSHCP: Group 2	Clay soils in association with native grasslands or vernal pools. Elevation: 15 – 1070 meters Blooming period: March - May	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of native grasslands or vernal pools is present. Site highly disturbed.
Myosurus minimus ssp. apus	little mousetail	CRPR: 3.1 MSHCP: Group 3	Little mousetail occurs in association with vernal pools and within the alkali vernal pools and alkali annual grassland components of alkali vernal plains. Elevation: 20 – 640 meters Blooming period: March - June	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of vernal pools or alkali vernal pools is present. Site highly disturbed.
Navarretia fossalis	spreading navarretia	FT, CRPR: 1B.1 MSHCP: Group 3	Annual herb native to California and Baja California. Habitat includes chenopod scrub, marshes, and swamps (assorted shallow freshwater), playas, and vernal pools. Threatened by urbanization, agriculture, road construction, grazing, flood	*Absent*. a focused study failed to detect the species and no suitable habitat in the form of chenopod scrub, marshes, and

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
			control, non-native plants, illegal dumping, foot traffic, and vehicles. Elevation: 30 - 655 meters (CNPS); 30 – 1300 (Jepson eFlora) Blooming period: April - June	swamps (assorted shallow freshwater), playas, or vernal pools is present. Site highly disturbed.
Orcuttia californica	California Orcutt grass	FE, SE, CRPR: 1B.1 MSHCP: Group 3	All known California Orcutt grass localities are associated with vernal pools. Elevation: < 700 meters Blooming period: April - August	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of vernal pools is present. Site highly disturbed.
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	CRPR: 2B.1 MSHCP: Group 3	Annual herb native to California, Baja California, and Texas. Habitat includes alkaline soils, meadows and seeps, marshes and swamps, riparian forest, and vernal pools. Wright's trichocoronis is highly dependent on alkaline soils that are saturated for extended periods of time. Habitat lost to agriculture and urbanization. Elevation: < 500 meters Blooming period: May - September	*Absent.* a focused study failed to detect the species and no suitable habitat in the form of alkaline soils, meadows and seeps, marshes and swamps, riparian forest, or vernal pools is present. Site highly disturbed.
ANIMALS				
Invertebrates				
Bombus crotchii	Crotch bumble bee	SCE, IUCN: EN	Uncommon species of coastal California east towards the Sierras; select food plan genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, Eriogonum.* Also, like lotus, *Encelia* sp., milk weed, and non-native grassland. Don't prefer dense non-native vegetation. Nest in the ground but are not limited by compact soils unless no rodent burrows or crevices are present. Highly impacted by urbanization; unlikely to be found in fragmented habitats and more likely to be found in large undisturbed areas or sites with direct connections to large undisturbed areas.	*Low.* Site primarily disturbed or developed land along a right-of-way. Crotch's bumblebee sighted historically (1940s) less than half a mile from Project site according to CNDDB. Although suitable habitat exists for the bee in the sage scrub near McCall Boulevard, there is not enough suitable habitat for *Bombus crotchii* to likely be present within the Project site and the Site is highly disturbed.
Reptiles				

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
Anniella stebbinsi	Southern California Legless Lizard	SSC, FSS	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat.	*Low.* Site primarily disturbed or developed land along a right-of-way. No suitable habitat in the form of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.
Aspidoscelis hyperythra	orange-throated whiptail	WL, FSS, IUCN:LC MSHCP: Group 1	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes & other sandy areas with patches of brush & rocks. Perennial plants necessary for its major food-termites.	*Low.* Site primarily disturbed or developed land along a right-of-way. No chaparral or valley and foothill grasslands. Not enough coastal scrub to support the species.
Crotalus ruber	red-diamond rattlesnake	FSS, SSC MSHCP: Group 2	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	*Low.* Site primarily disturbed or developed land along a right-of-way. No Chaparral, woodland, grassland, or desert communities.
Amphibians				
Spea hammondii	western spadefoot toad	SSC, BLMS, IUCN: NT MSHCP: Group 2	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools lasting a significant amount of time, and which do not contain bullfrogs, fish, or crayfish are necessary for breeding. Typically found in areas with good native vegetative cover and low levels of disturbance.	*Moderate.* Species spotted in the past (2012) near McLaughlin Road and Matthews Road according to CNDDB. There is some potential habitat only in the form of coastal sage scrub for the species in this area but the Site is highly disturbed.
Birds				
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	WL MSHCP: Group 2	Found on moderate to steep, dry, grass-covered hillsides, coastal sage scrub, and chaparral and often occur near the edges of the denser scrub and chaparral associations. Preference is shown for tracts of California sagebrush.	*Low.* Site primarily disturbed or developed land along a right-of-way. Limited coastal sage scrub. No chaparral for species.

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
Aquila chrysaetos	golden eagle	WL, FP, BCC, BLMS, IUCN:LC MSHCP: Group 2	Range-wide, golden eagles occur locally in open country (*e.g.,* tundra, open coniferous forest, desert, barren areas), especially in hills and mountainous regions.	*Low.* Site primarily disturbed or developed land along a right-of-way. Species sighted historically (1970's) near McCall Boulevard according to CNDDB. No tundra, coniferous forest, or desert.
Artemisiospiza belli belli	Bell's sage sparrow	WL, BCC MSHCP: Group 2	The species prefers semi-open habitats with evenly spaced shrubs 1 to 2 meters high. Vertical structure, habitat patchiness, and vegetation density may be more important in habitat selection by the sage sparrow than the specific shrub species, but this sparrow is closely associated with sagebrush throughout most of its range. *Amphispiza belli* consists of four subspecies, three of which breed in California (the fourth subspecies occurs in Baja California). The most widespread subspecies *A. b. belli* resides in the coast ranges from northwestern to southern California, with a small isolated population in the western foothills of the Sierra Nevada.	*Low.* Site primarily disturbed or developed land along a right-of-way. Some sagebrush but not dense enough for species.
Athene cunicularia	burrowing owl	SSC, BCC, BLMS MSHCP Group 3	Year-round resident of open, dry grassland and desert habitats. Usually nests in old burrow of ground squirrel or other small mammal. May dig own burrow in soft soil or nest in pipes or culverts.	*Low.* Some suitable burrows were found onsite, but not detected during focus surveys. No open, dry grasslands, or desert habitats.
Buteo regalis	ferruginous hawk	WL, BCC, IUCN: LC MSHCP: Group 1	Live in the open spaces of the West, in grasslands, prairie, sagebrush steppe, scrubland, and pinyon-juniper woodland edges. Present in southern California in the winter.	*Low.* Site primarily disturbed or developed land along a right-of-way. No grasslands, sagebrush steppe, or pinyon-juniper woodland habits. Some scrub habitat is present but the Site is highly disturbed.
Calypte costae	Costa's hummingbird	BCC	They prefer arid bushy deserts. Along the California coast, they prefer sage scrub and chaparral habitats with a variety of plant life. This is often in association with washes and stream sides.	*Present.* Species observed during surveys. Supported by sage scrub.
Eremophila alpestris actia	California horned lark	WL MSHCP: Group 2	The California horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large	*Present.* Habitat contains non-native grassland that could be

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
			shrubs are absent. In the Midwest, the species has been characterized as the most abundant species in row-crop fields. Range-wide, California horned larks breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats	suitable for foraging. Horned lark spotted during surveys.
Lanius ludovicianus	loggerhead shrike	SSC, BCC, IUCN:LC MSCHP: Group 2	The species are known to forage over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral, and beach with scattered shrubs. Nest is placed in a dense (and often thorny) tree or shrub, usually 5-30' above the ground, occasionally higher, in a spot well hidden by foliage.	*Low.* Site primarily disturbed or developed land along a right-of-way with no dense habitat present. No riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral, or beach.
Polioptila californica californica	coastal California gnatcatcher	FT, SSC MSHCP: Group 2	Obligate, permanent resident of coastal sage scrub below 835 meters in Southern California. Low, coastal sage scrub in arid washes, on mesas & slopes. Not all areas classified as coastal sage scrub are occupied.	*Low-Moderate.* Site primarily disturbed or developed land along a right-of-way but there are sparse areas of scrub habitat.
Mammals				
Chaetodipus californicus femoralis	Dulzura pocket mouse	SSC	Occupies coastal sage scrub, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats. Attracted to grass-chaparral edges. 0 to over 3000ft.	*Low.* Site primarily disturbed or developed land along a right-of-way. Limited sage scrub and no chapparal, oak woodland or mixed conifer habitat.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	SSC MSHCP: Group 1	This species inhabits coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. Habitats tend to be stony soils above sandy desert fans and rocky areas within shrub communities such as coastal sage scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent scrub, pinyon-juniper, and annual grassland. Seeks cover in rocky/gravelly areas with a yucca overstory.	*Low.* Site primarily disturbed or developed land along a right-of-way. Limited sage scrub habitat and no grassland or chaparral.
Dipodomys merriami parvus	San Bernardino kangaroo rat	FE, SSC MSHCP: Group 3	This species is typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans, and flood plains, and along washes with nearby sage scrub, chaparral and even	*Low.* Site primarily disturbed or developed land along a right-of-way. Species sighted

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
			disturbed areas that are associated with alluvial processes. Soil texture is a primary factor in this subspecies' occurrence. Sandy loam substrates allow for the digging of simple, shallow burrows. The species is found in open grassland habitats where the sparse vegetation is mainly composed of shrubs, sagebrush, grasses, and forbs.	historically (1930's) near McCall Boulevard and McLaughlin Road according to CNDDB. No alluvial sage scrub, alluvial fans, flood plains, washes, or chaparral.
Dipodomys stephensi	Stephens' kangaroo rat	FT, ST, IUCN: EN MSHCP: Group 2	The species is found in open grassland habitats where the sparse vegetation is mainly composed of shrubs, sagebrush, grasses, and forbs. Species avoids dense grasses (for example, non-native bromes) and are more likely to inhabit areas where the annual forbs disarticulate in the summer and leave more open areas. As a fossorial (burrowing) animal, the Stephens' kangaroo rat typically is found in sandy and sandy loam soils with a low clay to gravel content, although there are exceptions where they can utilize the burrows of Botta's pocket gopher and California ground squirrel.	*Low.* Site primarily disturbed or developed land along a right-of-way. Species sighted historically near McCall Boulevard (1990's) according to CNDDB. Not enough sage to support species.
Eumops perotis californicus	western mastiff bat	SSC, BLMS, WBWG (H)	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting. When roosting in rock crevices, needs vertical faces to drop off to take flight. Distribution of the species is likely geomorphically determined, with the species being present only where there are significant rock features offering suitable rooting habitat.	*Low.* Site primarily disturbed or developed land along a right-of-way without adequate roosting habitat. No conifer and deciduous woodlands, annual and perennial grasslands, palm oases, chaparral, or desert scrub. Not enough coastal scrub to support species.
Lasiurus xanthinus	western yellow bat	SSC, IUCN: LC WBWG (H)	Year-round resident of southern CA, found below 2000 ft in or near foothill or desert riparian habitats. Roosts in trees, including palm trees, in and near palm oases and riparian habitats.	*Low.* Site primarily disturbed or developed land along a right-of-way without adequate roosting habitat. Not enough palms to contain species and no suitable riparian habitat.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	CDFW SA, MSHCP: Group 1	This species is found in a variety of habitats including herbaceous and desert scrub areas, early stages of open forest and chaparral, and in western Riverside County in suitable grassland, sage scrub and chaparral (openings)	*Low.* Site primarily disturbed or developed land along a right-of-way. No desert scrub, open forest, or chapparal.

Scientific Name	***Common Name***	***Status***	***General Habitat Description***	***Potential for Occurrence within the Project Site***
			habitat. It is also found in substantial numbers in agricultural and rural residential settings. It is restricted to the cismontane areas of Southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino and Santa Rosa Mountain ranges.	
Perognathus longimembris brevinasus	Los Angeles pocket mouse	SSC MSHCP: Group 3	Inhabits lower elevation grassland, alluvial sage scrub, and coastal sage scrub in areas with soils composed of fine sands. They spend most of their foraging time in or near bushes, scrubs, rock crevices, or other sources of cover. Prefers habitat similar to that of the Stephens' kangaroo rat and San Bernardino kangaroo rat. Extirpated from most or all of the San Fernando and San Bernardino valleys.	*Low.* Site primarily disturbed or developed land along a right-of-way and no desert scrub habitat. No grassland or alluvial sage and not enough coastal sage to support the species.
Onychomys torridus ramona	southern grasshopper mouse	SSC	The species occurs in desert areas, especially in scrub habitats with friable soils for digging burrows. It is also known from coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. Historically occurred along the coast of Southern California from Los Angeles County south through San Diego County into northwestern Baja California. There are few recent records from the Los Angeles Basin, Riverside and San Bernardino, most of Orange County, or western San Diego County.	*Low.* Site primarily disturbed or developed land along a right-of-way and no desert scrub habitat. Species sighted historically (1930's) near McLaughin Road and McCall Boulevard according to CNDDB. No mixed chaparral, sagebrush, low sage, or bitterbrush habitats. Some coastal scrub but not enough to support the species.

Legend

Federal Endangered Species Act (ESA) Listing Codes: federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (ESA).
FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.

California Endangered Species Act (CESA) Listing Codes: state listing is pursuant to § 1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals.

SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.
ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.

California Department of Fish and Wildlife (CDFW):
SSC = species of special concern: status applies to animals which 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist. The CDFW has designated certain vertebrate species as "species of special concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.
FP = fully protected: animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.
WL = watch list: these birds have been designated as "Taxa to Watch" in the *California Bird Species of Special Concern report* (Shuford and Gardali 2008). The report defines "Taxa to Watch" as those that are not on the current special concern list that (1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; (2) have been removed (delisted) from either the state or federal threatened and endangered lists (and remain on neither), or (3) are currently designated as "fully protected" in California.

United States Fish and Wildlife Service (USFWS):
BCC = USFWS bird of conservation concern: listed in the USFWS'S 2008 *Birds of Conservation Concern* report. The report identifies species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report are priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.

United States Forest Service (USFS):
FSS = Forest Service sensitive: those plant and animal species identified by a Regional Forester that are not listed or proposed for listing under the ESA and for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution."

United States Bureau of Land Management (BLM):
BLMS = BLM sensitive: those plant and animal species on BLM administered lands and that are (1) under status review by the USFWS/NMFS; or (2) whose numbers are declining so rapidly that federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats. BLM policy is to provide the same level of protection as USFWS candidate species.

Western Bat Working Group (WBWG):
WBWG ("Priority"): Species are ranked as High, Medium, or Low Priority in each of 10 regions in western North America. Because California includes multiple regions where a species may have different WBWG Priority ranks, the CNNDB includes categories for Medium-High, and Low-Medium Priority. The CNDDB tracks bat species that are at least Low-Medium Priority in California. "Priority" ranks are abbreviated as follows: High = H, Medium = M, Low = L, Medium-High = MH, Low-Medium = LM.

California Rare Plant Ranks (Formerly known as CNPS Lists): the CNPS is a statewide, non-profit organization that maintains, with CDFG, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFG officially changed the name "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CPRP). This was done to reduce confusion over the fact that CNPS and CDFG jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

CRPR 1A – California Rare Plant Rank 1A (formerly List 1A): Plants presumed extirpated in California and either rare or extinct elsewhere. All of the plants constituting California Rare Plant Rank 1A meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 1B - California Rare Plant Rank 1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere. All of the plants constituting California Rare Plant Rank 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 2 - California Rare Plant Rank 2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere. All of the plants constituting California Rare Plant Rank 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 4 - California Rare Plant Rank 4 (formerly List 4): Plants of Limited Distribution - A Watch List. Very few of the plants constituting California Rare Plant Rank 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and CNPS and CDFG strongly recommend that California Rare Plant Rank 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

California Native Plant Society (CNPS) Threat Ranks: The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.

0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = fairly endangered in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Western Riverside Multiple Species Habitat Conservation Plan (MSHCP): Planning species covered by the MSHCP. Additional surveys for Narrow Endemic Plant Species and Criteria Area Species to determine presence/absence may be required.
NEPSSA = Narrow Endemic Plant Species Survey Area species

Group 1 = Species that have wide distribution throughout the Plan Area within suitable habitat. Take coverage is warranted based upon regional or landscape level considerations, such as healthy population levels, widespread distribution throughout the MSHCP Plan Area, and life history characteristics that respond to habitat-scale conservation and management actions.
Group 2 = Species that are relatively well-distributed throughout the MSCHP Plan Area. Take coverage is warranted based on regional or landscape level considerations with the addition of site-specific conservation and management requirements that are clearly identified in the MSHCP for species that are generally well-distributed, but that have Core Areas that require Conservation.
Group 3 = Species that have narrow habitat requirements and limited distribution within the Plan Area. Take coverage is warranted based upon site specific considerations and the identification of specific conservation and management conditions for species within a narrowly defined Habitat or limited geographic area within the MSHCP Plan Area.

Sources:

- Calflora website - search for plants (Calflora 2023).
- CNPS Inventory of Rare and Endangered Plants (CNPS 2023).
- The Jepson Manual: *Vascular Plants of California,* second edition (Baldwin *et al.* 2012).
- RareFind, CDFW, California Natural Diversity Database (CNDDB) (CDFW 2023).
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2023).
- Special Animals List (CDFW 2023)
- Life History Accounts (CDFW)
- Final Recovery Plan for the Delhi Sands Flower-Loving Fly (USFWS, 1997)
- California Fish Website (UC Davis, 2018)

APPENDIX B

February 2023, Rocks Biological Consulting
Menifee Valley Project DBESP

https://vcsenv.sharefile.com/d-sb6e777ea603a4e63bad0448e547783a3