APPENDIX 4.0

General Biological Resources Assessment/Aquatic Resources

MEMORANDUM

TO: Mr. Adir Cohen, Cordova Business Center, LLC

FROM: Ms. Chelsie Brown

DATE: July 7, 2023

RE: Potential Impact Assessment of Aquatic Resources for the Cordova Business Center Project

This memorandum provides an evaluation of potentially regulated resources within the Study Area that may be affected by the proposed Cordova Business Center Project (Project). For purposes of the Aquatic Resources Delineation, the Study Area includes the footprint of Assessor's Parcel Number 0463-491-09. The results of the Aquatic Resources Delineation are depicted on Figures 1 and 2.

POTENTIAL IMPACTS

According to the Project site plan provided by the client, the majority of the Study Area is anticipated to be affected by the current Project design. Two of the three aquatic resources (Features 1 and 2) mapped within the Study Area occur within the Project impact area (Figures 3 and 4). The Project design would avoid potential impacts to Feature 3. The calculated acreages of each feature within the Project impact area are presented in Table 1. These calculations serve as an estimate and are subject to agency verification. All potential Project impacts are considered permanent impacts, and there are no anticipated potential temporary Project impacts.

Table 1. Permanent Impacts by Agency[1]

Feature No.	Waters of the U.S.[2]		Waters of the State[2]		California Department of Fish and Wildlife[3]	
	Acre	Linear Feet	Acre	Linear Feet	Acre	Linear Feet
1	0.010	216	0.010	216	0.015	216
2	0.150	2,227	0.150	2,227	0.221	2,227
3	-	-	-	-	-	-
TOTAL[4]	**0.160**	**2,443**	**0.160**	**2,443**	**0.236**	**2,443**

[1]Acreages and linear feet represent a calculated estimation and are subject to modification following the U.S. Army Corps of Engineers (USACE) verification process. This analysis is not intended to interpret the definition of Waters of the U.S. based on the recent Supreme Court decision in the *Sackett v. USEPA* case.
[2] Ordinary high-water mark widths were used to estimate Waters of the State areas.
[3] Top-of-bank widths were used to estimate California Department of Fish and Wildlife (CDFW) acreages.
[4]The acreage value for each feature has been rounded to the nearest 1/1000 decimal place. The totals represent a sum of unrounded values prior to rounding.

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PERMIT REQUIREMENTS

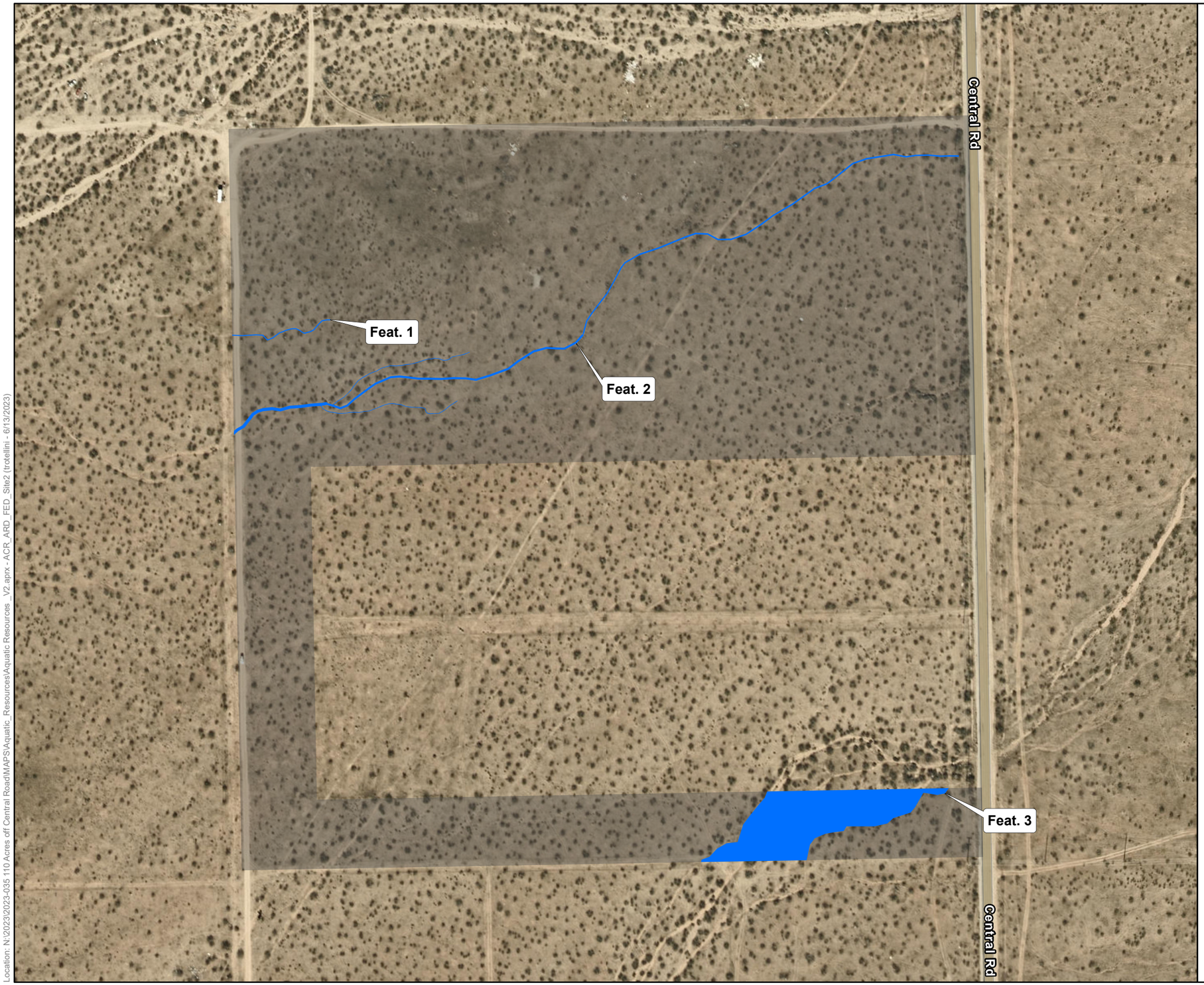
Project development would result in approximately 0.160 acre of permanent impacts to potential Waters of the U.S. and/or Waters of the State, pending Agency verification. It is unclear at this time how the USACE and USEPA will interpret the Supreme Court's recent decision in the *Sackett v. U.S. Environmental Protection Agency* case pertaining to Waters of the U.S. The proposed Project would result in permanent impacts to approximately 0.236 acre CDFW-regulated habitats. No temporary impacts are expected for this Project.

Project impacts to Waters of the U.S./State will require a Section 404 Clean Water Act permit and Section 401 Water Quality Certification or Waste Discharge Requirements if the waters onsite are not Waters of the U.S. The Project will also require Section 1600 Streambed Alteration Agreement permitting with the CDFW for impacts to CDFW streambed habitat.

If you have any questions regarding the content of this memorandum, please contact me at (909) 307-0046.

Prepared by: Chelsie Brown Date July 7, 2023

LIST OF FIGURES



Map Contents

Project Area

USACE/RWQCB

Ephemeral Drainage - 0.966 Acres

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.

Sources: ESRI

Other Related Info if Needed

Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_FED_Site2 (trotellini - 6/13/2023)

Map Date: 6/13/2023

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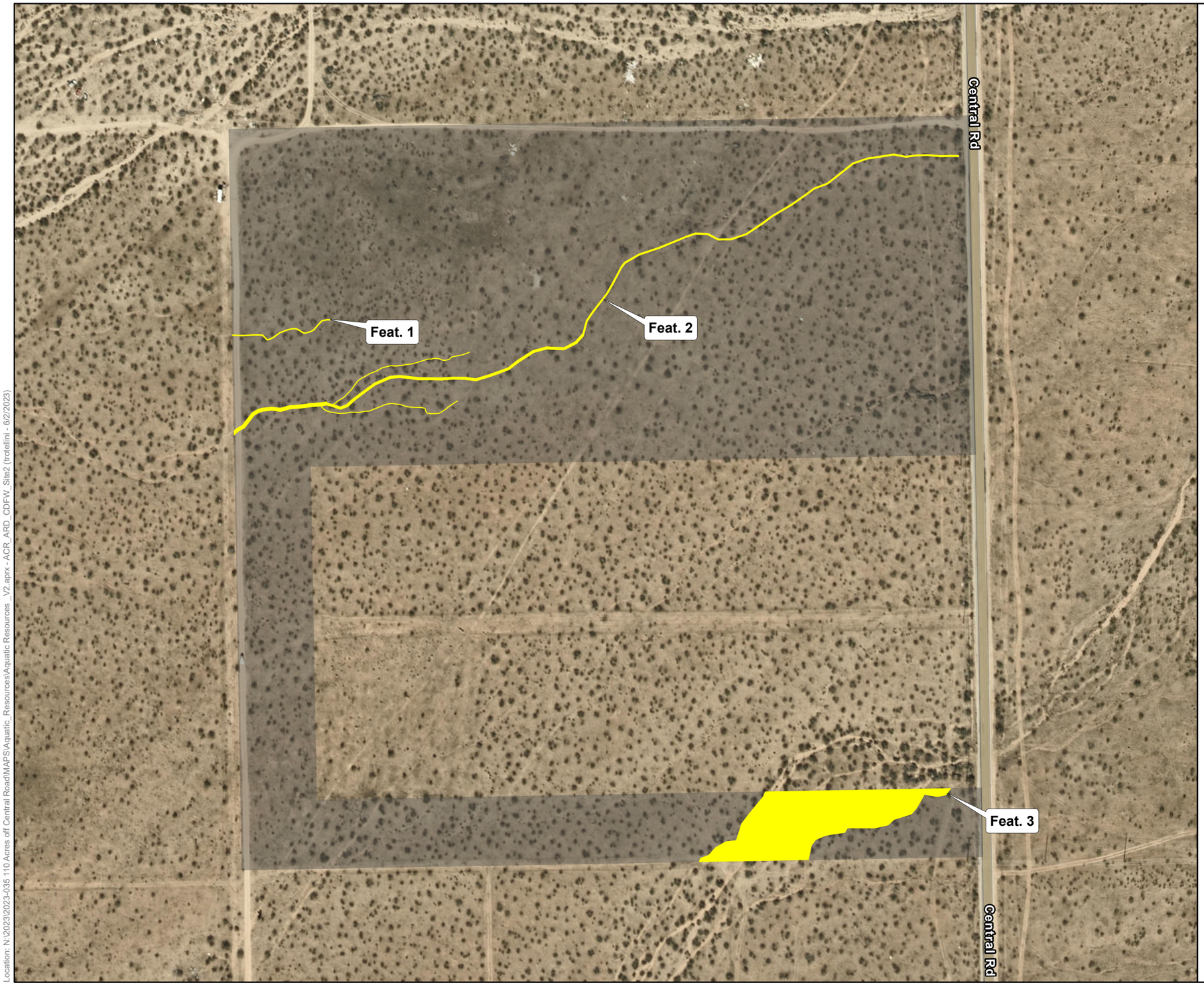
Scale in Feet
0 200

Figure 1. Aquatic Resources Delineation
USACE/RWQCB - Cordova Business Center
2023-035 110 Acres off Central Road



Map Contents

Project Area

CDFW

Streambed - 1.094 Acres

Subject to California Department of Fish and Wildlife verification.
Sources: ESRI
Other Related Info if Needed

Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_CDFW_Site2 (trctellini - 6/2/2023)

Map Date: 6/2/2023

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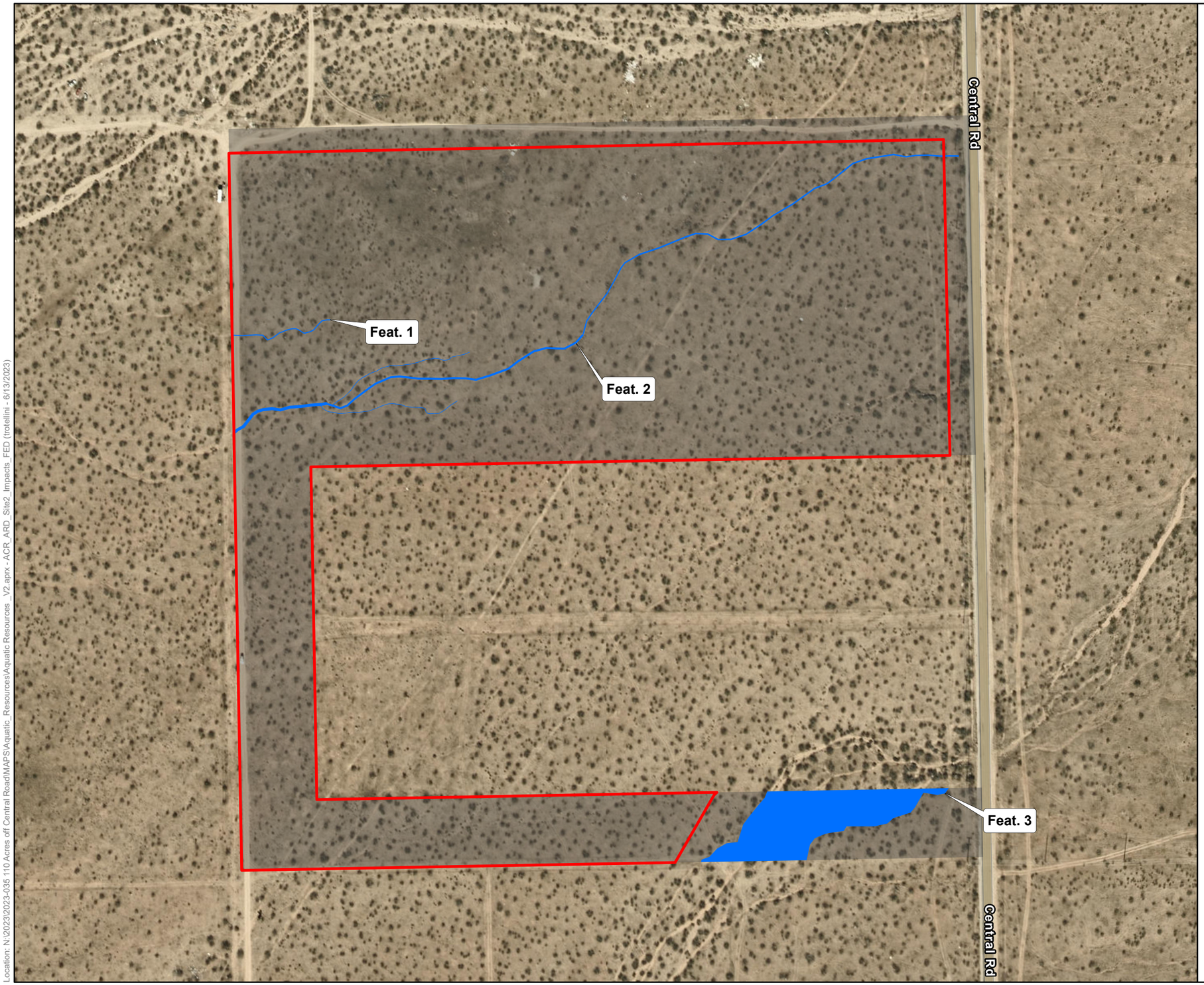
Scale in Feet
0 200

Figure 2. Aquatic Resources Delineation
CDFW - Cordova Business Center
2023-035 110 Acres off Central Road



Map Contents

- Project Area
- Project Impact Area

USACE/RWQCB

- Ephemeral Drainage

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.

Sources: ESRI

Other Related Info if Needed

Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_Site2_Impacts_FED (trotellini - 6/13/2023)

Map Date: 6/13/2023

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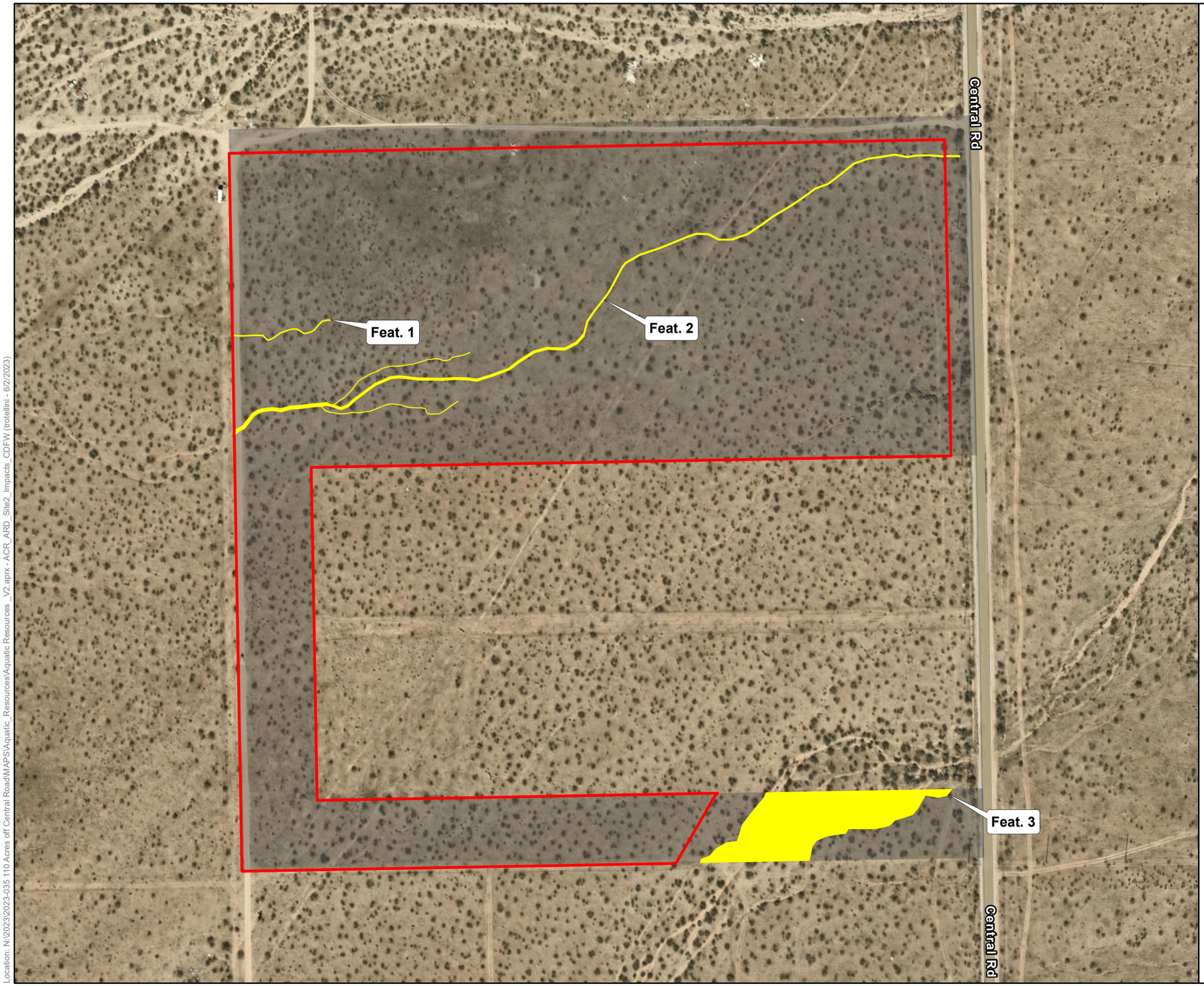
Scale in Feet
0 200

Figure 3. Aquatic Resources Delineation Impacts
USACE/RWQCB - Cordova Business Center
2023-035 110 Acres off Central Road



Map Contents

- Project Area
- Project Impact Area

CDFW

- Streambed

Subject to California Department of Fish and Wildlife verification.
Sources: ESRI
Other Related Info if Needed

Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_Site2_Impacts_CDFW (trotellini - 6/2/2023)

Map Date: 6/2/2023

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Scale in Feet
0 200

Figure 4. Aquatic Resources Delineation Impacts
CDFW - Cordova Business Center
2023-035 110 Acres off Central Road

Aquatic Resources Delineation for the Cordova Business Center Project

San Bernardino County, California

Prepared For:

Cordova Business Center, LLC

Prepared By:

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ENVIRONMENTAL CONSULTANTS
215 North Fifth Street
Redlands, California 92374

July 2023

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
˚F	degrees Fahrenheit
AJD	Approved Jurisdictional Determination
APN	Assessor's Parcel Number
APT	Antecedent Precipitation Tool
BRA	Biological Resources Assessment
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
GIS	Geographic Information System
GPS	Global Positioning System
HUC	Hydrologic Unit Code
JD	Jurisdictional Delineation
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWPR	Navigable Waters Protection Rule
OHV	Off-Highway Vehicle
OHWM	Ordinary high-water mark
PJD	Preliminary Jurisdictional Determination

Term	Definition
Procedures	State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State
Project	Cordova Business Center Project
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
Study Area	Footprint of APN 0463-491-09
SWRCB	State Water Resources Control Board
TNW	Traditionally Navigable Waters
TOB	Top-of-bank
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

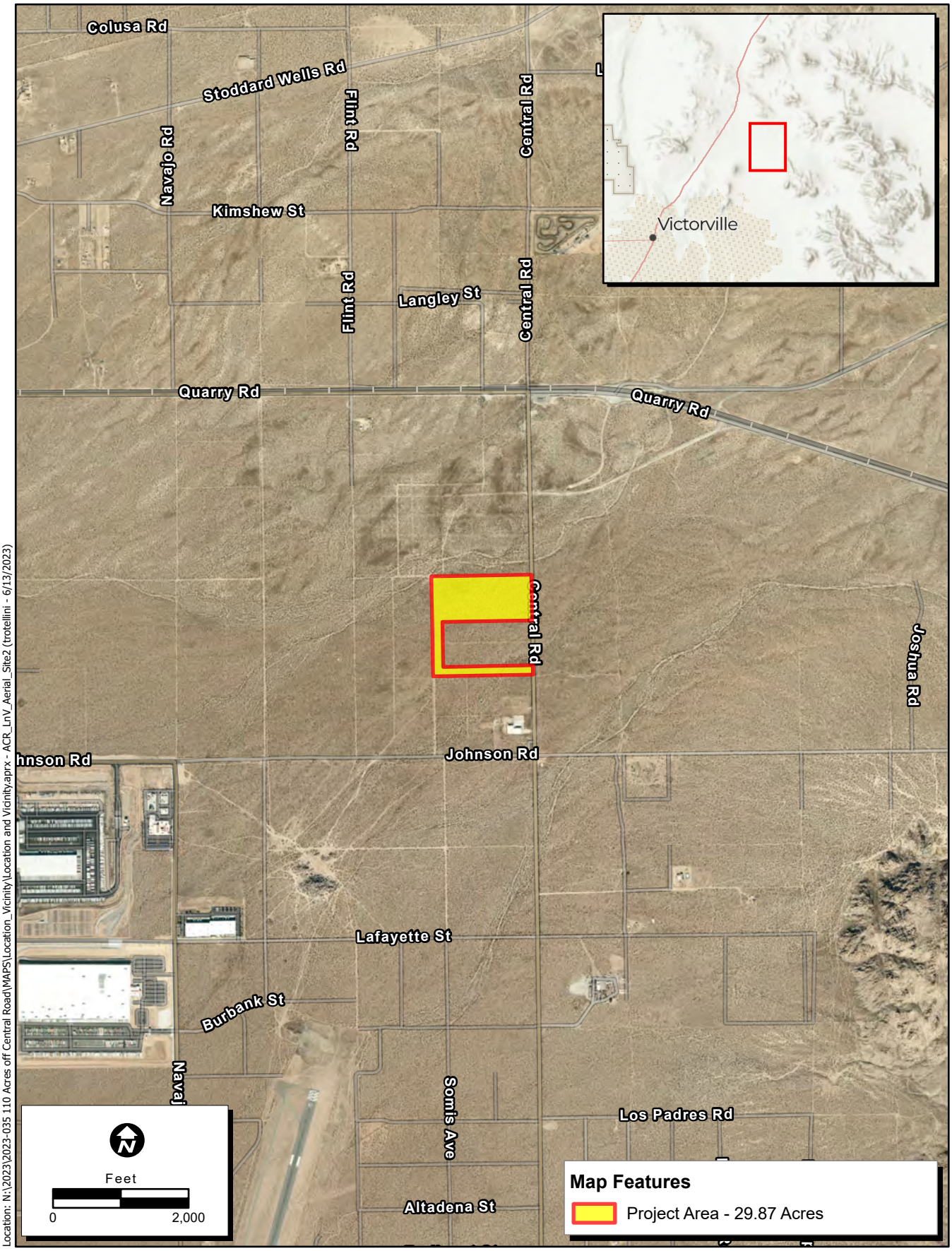
Cordova Business Center, LLC proposes to install one industrial building, an associated loading dock area, parking spaces, and three detention basins on approximately 29.87 acres of undeveloped land in the Town of Apple Valley, San Bernardino County, California. This report was prepared to summarize the results of an aquatic resources delineation for the Cordova Business Center Project (Project). A biological Resources Assessment (BRA) was previously prepared for the Project by David N Lee Consulting (2022). The biological report identified two washes within the Study Area and recommended that a formal aquatic resources delineation be conducted.

The Proposed Project will be located on approximately 29.87 acres of undeveloped land located at Assessor's Parcel Number (APN) 0463-491-09 in the Town of Apple Valley, San Bernardino County, California. The Project is located east of Interstate 15, north of Johnson Road, and west of Central Road (Figure 1). This corresponds to Section 15 of Township 6 North, Range 3 West, U.S. Geological Service (USGS) 7.5-minute Apple Valley North quadrangle (San Bernardino Base and Meridian; Figure 2). The approximate center of the Study Area is located at 34.6067782° North and 117.1743301° West. The Study Area is located within the Mojave watershed (Hydrologic Unit Code [HUC] #18090208) and within the Apple Pond-Apple Valley Dry Lake subwatershed (HUC-12 #180902080304; Natural Resources Conservation Service [NRCS], et al. 2023). Driving directions to the Study Area are included in Appendix A.

This report provides a summary of aquatic resources within the Study Area that are regulated pursuant to the Clean Water Act (CWA), the Porter-Cologne Water Quality Control Act, or Section 1600 et al. of the California Fish and Game Code. The Study Area for the purpose of this report includes the footprint of APN 0463-491-09. All aquatic resources shown in exhibits in this report are for the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) evaluation only and are subject to modification following an agency review and/or verification process.

2.0 REGULATORY REQUIREMENTS

The USACE regulates discharge of dredged or fill material into Waters of the U.S. under Section 404 of the CWA. Waters of the U.S. include surface waters such as navigable waters and their tributaries, all interstate waters and their tributaries, natural lakes, all wetlands adjacent to other waters, and all impoundments of these waters; a full definition is provided later in this report. *Discharges of fill material* is defined as the addition of fill material into Waters of the U.S., including, but not limited to, the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 Code of Federal Regulations Section 328.2(f)]. In addition, Section 401 of the CWA (33 U.S. Code [USC] 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.



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Map Date: 6/13/2023

Sources: ESRI

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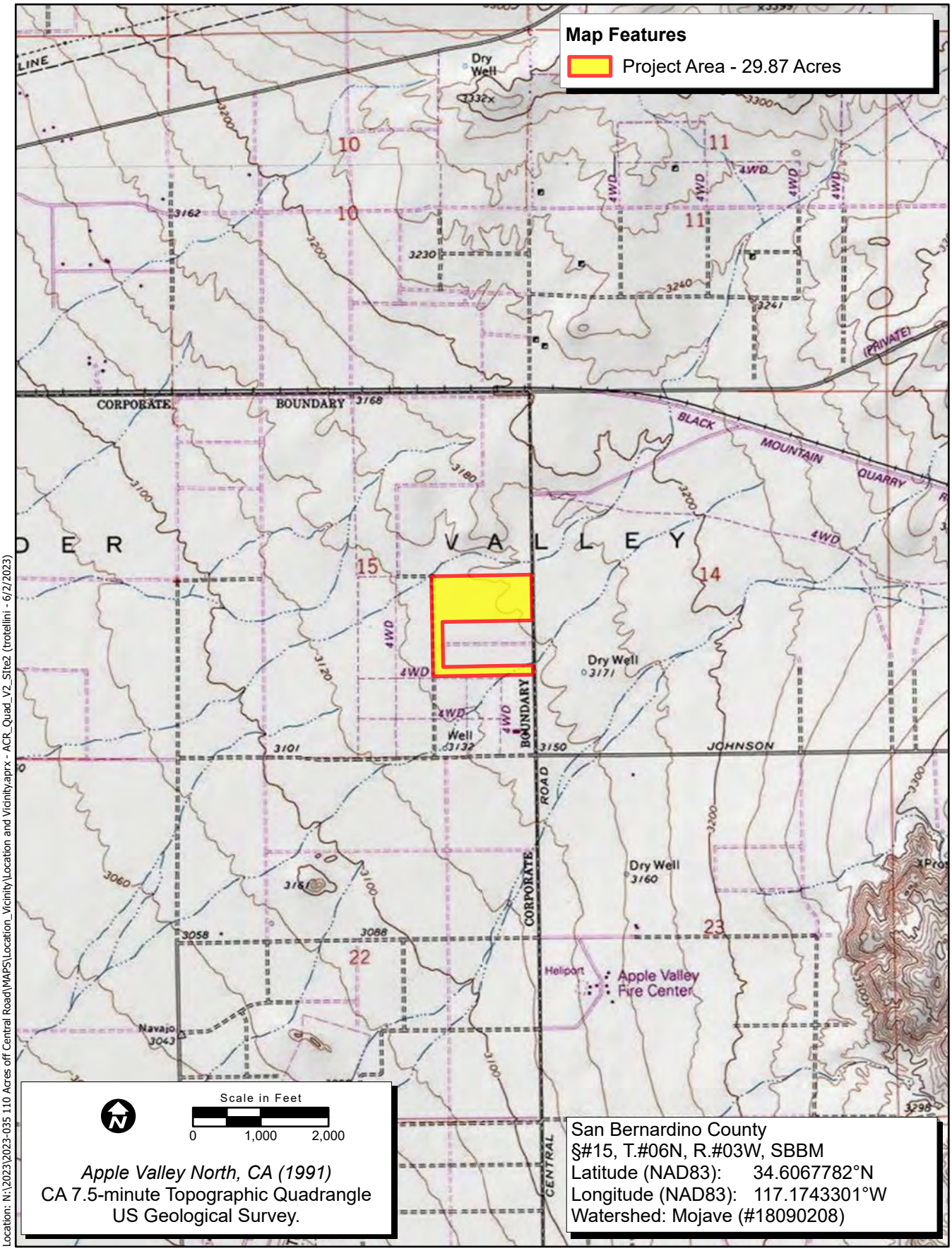
Figure 1. Project Location and Vicinity
Cordova Business Center
2023-035 110 Acres off Central Road



Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Location_Vicinity\Location and Vicinity.aprx - ACR_Quad_V2_SIte2 (trotellini - 6/2/2023)

Map Date: 6/2/2023
Sources: ESRI, USGS

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Figure 2. USGS Topographic Quadrangle
Cordova Business Center
2023-035 110 Acres off Central Road

Section 401 Water Quality Certification, "gives states and authorized tribes the authority to grant or waive certification of proposed federal licenses or permits that may discharge into Waters of the U.S." (33 USC 1251).

In 2008, the U.S. Environmental Protection Agency (USEPA) and USACE issued a memorandum providing guidance on the definition of Waters of the U.S. to include Traditionally Navigable Waters (TNW) and their adjacent wetlands, and water that met either the *relatively permanent* or *significant nexus* standards (USACE and USEPA 2008). The USEPA and USACE have defined Waters of the U.S. several times, with three new definitions since 2015, including the Navigable Waters Protection Rule (NWPR), which became effective on June 22, 2020. In August 2021, a judge in the U.S. District Court for the District of Arizona ruled to vacate the NWPR. Following this order, the USEPA and USACE halted implementation of the NWPR nationwide and began interpreting *Waters of the United States* consistent with the pre-2015 regulatory regime.

On December 22, 2022, the USEPA and Department of the Army (Agencies) announced a final rule defining Waters of the U.S. The definition was founded upon the pre-2015 "Rapanos" decision, updated to reflect consideration of Supreme Court decisions, the science, and the Agencies' technical expertise. The final rule was published in the Federal Register on January 18, 2023, effective as of March 20, 2023. On May 25, 2023, the Supreme Court of the United States adopted a narrower definition of Waters of the U.S. in the case *Sackett v. Environmental Protection Agency*. Under the majority opinion, Waters of the U.S. refers to "geographical features that are described in ordinary parlance as 'streams, oceans, rivers, and lakes' and to adjacent wetlands that are "indistinguishable" from those bodies of water due to a continuous surface connection." At this time, it is unclear if or when the Agencies will issue guidance interpreting the court's opinion.

2.1 Rivers and Harbors Act

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

2.2 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the Waters of the State to file a report of discharge" with the RWQCB through State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) (California Code of Regulations [CCR], title 23, Section 3855) (State Water Resources Control Board [SWRCB] 2021). *Waters of the State* is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code Section 13050[e]). Pollution is defined as an alteration of the quality of the Waters of the State by waste to a

degree that unreasonably affects its beneficial uses (California Water Code Section 13050) and includes filling in Waters of the State. Note that CCR, title 23, Section 3855 applies only to individual water quality certifications, but the new Procedures extend the application of Section 3855 to individual waste discharge requirements for discharges of dredged or fill material to Waters of the State and waivers thereof.

A permit for impacts to Waters of the State would likely be required under the CWA and/or Porter-Cologne Water Quality Control Act. To determine whether a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB considers whether project activities could affect the quality of Waters of the State.

2.3 California Fish and Game Code Section 1602

Pursuant to Section 1602 of the California Fish and Game Code, a Notification of Lake or Streambed Alteration (LSA) form must be submitted for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake" (CDFW 2023). In Title 14 of the CCR, Section 1.72, the CDFW defines a *stream* (including creeks and rivers) as:

> "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation."

The CDFW publishes no formal methodology for determination of the extent of their jurisdiction. The definition of streambed as:

> "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a "surface or subsurface flow that supports riparian vegetation" (Title 14, Section 1.72).

For the purposes of this report, based on experience with the agency, the CDFW's jurisdiction includes drainages with a definable bed, bank, or channel with the jurisdictional limit being the Top of Bank (TOB). It also includes areas that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation. It also includes areas that have a hydrologic source. Riparian vegetation associated with lakes or streambeds is also considered to be subject to CDFW's jurisdiction.

The CDFW will determine if the proposed actions will result in diversion, obstruction, or change of the natural flow, bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. The CDFW will submit a draft Streambed Alteration Agreement (SAA) that includes measures to protect affected fish and wildlife resources. Through a process of review, comment, and modification between the CDFW and the applicant, the SAA becomes final when signed by both parties.

3.0 METHODS

3.1 Pre-Survey Investigations

Prior to conducting the field delineations, resources were reviewed to identify potentially jurisdictional areas: aerial imagery, 7.5-minute USGS quadrangles, the National Wetlands Database, the online web soil survey, and a hydric soils list for the area. The aerial imagery was used to digitize potential aquatic features using ArcGIS™. The imagery was analyzed during a preliminary desktop delineation effort to identify differences in vegetative cover, the presence of breaks in a slope, and other areas of potential water disturbance (USACE 2008a). The aerial imagery, combined with these other resources, was used to gain a background understanding of the Study Area prior to the field investigation. Additionally, the BRA prepared for the Study Area by David N. Lee Consulting was reviewed prior to the field study (2022).

3.2 Field Survey Investigation

The field survey was conducted on February 22, 2023 by ECORP delineation specialist Chelsie Brown with assistance from Madison Panzino. The entire Study Area was visually surveyed by the biologists during the field survey. Where potential jurisdictional features were present, the extent of potential Waters of the U.S., Waters of the State, CDFW-regulated streambed, and TOB limits were estimated using the Ordinary High Water Mark (OHWM) in accordance with USACE requirements and guidelines, as well as SWRCB and CDFW delineation guidance. This aquatic resources delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010). *A Review of Stream Processes and Forms in Dryland Watersheds* (California Department of Fish and Game 2010) was also used for technical reference on the dryland stream forms. *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) was used for plant nomenclature and identification.

The perimeter and/or stream center of observed features were mapped using a post-processing capable Global Positioning System (GPS) unit with sub-meter accuracy (e.g., Juniper Geode™). Streambed widths were based on the presence of OHWM indicators such as the presence or absence of bed and bank, a natural line impressed in the bank, sediment deposits, changes in the character of soil, litter/debris, water stains, soil shelving, and/or exposed roots indicating active hydrology within the channel as observed during the field survey. Streambed widths and other lateral limits of jurisdiction were measured and recorded with GPS units. Bank-to-bank width measures were also taken and used to estimate CDFW jurisdictional boundary where features lacked riparian vegetation. Feature characteristics and measurements were recorded directly onto Arid West Ephemeral and Intermittent Streams OHWM Datasheets and into the data dictionary in the GPS unit. Characteristics of all mapped features were also documented in photographs.

3.3 Routine Determinations for Wetlands

The following three criteria must be met to be determined a wetland:

- A majority of dominant vegetation species are wetland-associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and
- Hydric soils are present.

3.3.1 Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase *a prevalence of vegetation typically adapted for life in saturated soil conditions*. Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The dominance test is the basic hydrophytic vegetation indicator and was applied at each sampling point location. The *50/20 rule* was used to select the dominant plant species from each stratum of the community. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of coverage and cumulatively totaled) that immediately exceed 50 percent of the total coverage for the stratum, plus any additional species that individually comprise 20 percent or more of the total cover in the stratum (USACE 1992, 2008a).

Dominant plant species observed at each sampling point were then classified according to the indicator status (probability of occurrence in wetlands; Table 1) in the National Wetland Plant List (USACE 2020). If the majority (more than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC), the site was considered to be dominated by hydrophytic vegetation.

Table 1. Classification of Wetland-Associated Plant Species[1]

Plant Species Classification	Abbreviation	Probability of Occurring in Wetland
Obligate	OBL	Almost always occur in wetlands
Facultative Wetland	FACW	Usually occur in wetlands, but may occur in non-wetlands
Facultative	FAC	Occur in wetlands and non-wetlands
Facultative Upland	FACU	Usually occur in non-wetlands, but may occur in wetlands
Upland	UPL	Almost never occur in wetlands
Plants That Are Not Listed (assumed upland species)	N/L	Does not occur in wetlands in any region.

Table 1. Classification of Wetland-Associated Plant Species[1]		
Plant Species Classification	**Abbreviation**	**Probability of Occurring in Wetland**

[1]Source: USACE 2012

In instances where indicators of hydric soil and wetland hydrology were detected but the plant community failed the dominance test, the vegetation was reevaluated using the Prevalence Index. The Prevalence Index is a weighted-average wetland indicator status of all plant species in the sampling plot, where each indicator status category is given a numeric code (OBL=1, FACW=2, FAC=3, FACU=4, and UPL=5) and weighting is by abundance (percent cover). If the plant community failed the Prevalence Index, the presence/absence of plant morphological adaptations to prolonged inundation or saturation in the root zone was evaluated.

3.3.2 Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 2003). Indicators that a hydric soil is present include, but are not limited to, histosols, histic epipedon, hydrogen sulfide, depleted below dark surface, sandy redox, loamy gleyed matrix, depleted matrix, redox dark surface, redox depressions, and vernal pools.

A soil pit was excavated at each sampling point to the depth needed to document an indicator, to confirm the absence of indicators, or until refusal at each sampling point. The soil was then examined for hydric soil indicators. Soil colors were determined while the soil was moist using the *Munsell Soil Color Charts* (Munsell Color 2009). Hydric soils are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. These processes and the features in the soil that develop can be identified by looking at the color and texture of the soils.

3.3.3 Hydrology

Wetlands, by definition, are seasonally or perennially inundated or saturated at or near (within 12 inches of) the soil surface. Primary indicators of wetland hydrology include, but are not limited to, visual observation of saturated soils, visual observation of inundation, surface soil cracks, inundation visible on aerial imagery, water-stained leaves, oxidized rhizospheres along living roots, aquatic invertebrates, water marks (secondary indicator in riverine environments), drift lines (secondary indicator in riverine environments), and sediment deposits (secondary indicator in riverine environments). The occurrence of one primary indicator is sufficient to conclude that wetland hydrology is present. If no primary indicators are observed, two or more secondary indicators are required to conclude wetland hydrology is present. Secondary indicators include, but are not limited to, drainage patterns, crayfish burrows, FAC-neutral test, and shallow aquitard.

3.4 Ordinary High-Water Mark/Non-Wetland Waters

The discussion in this section briefly summarizes *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States*, which is intended for delineating ephemeral/intermittent channels (USACE 2008b). The OHWM indicators commonly found in the Arid West include a clear natural scour line impressed on the bank, recent bank erosion, destruction of native terrestrial vegetation, and the present of litter and debris. Resources needed to delineate OHWM include aerial photography and other imagery, topographic maps and other maps (e.g., geological, soil, vegetation), rainfall data, stream gage data, and existing delineations (if present). Field identification of the OHWM includes noting general impression of the vegetation species and distribution, geomorphic features present, surrounding upland land use, and hydrologic alterations and instream and floodplain structures. In the field, the process of delineating the OHWM includes the identification of a low-flow channel (if present), a transition to an active floodplain, and an active floodplain through the presence of geomorphic features (e.g., presence of an active floodplain, benches, break in bank slope, staining of rocks, litter, or drift) and vegetation indicators (e.g., presence of sparse/low vegetation, annual herbs, hydromesic ruderals, pioneer tree seedlings and saplings, xeroriparian species).

3.5 Post-Processing

The data collected in the field utilized ArcGIS™ Field Maps on a device (smartphone or tablet) connected to a submeter external receiver. The submeter receiver applies differential correction instantaneously in the field using the Satellite-Based Augmentation System. The data were then viewed and analyzed for verification, edited, and compiled in Geographic Information System (GIS) format at the time of download. ArcGIS™ software was used to develop the geodatabase and the shapefiles depicted on the figures included in this report.

4.0 ENVIRONMENTAL SETTING

4.1 Existing Site Conditions

Elevations within the Study Area range from approximately 3,150 feet (960 meters) to 3,175 feet (968 meters) above mean sea level, largely sloping downward towards the southwest. In Apple Valley, California, the average annual low temperature is 53.2 degrees Fahrenheit (˚F), and the average annual high temperature is 92.8˚F (Weather US 2023). Average annual precipitation (rain) at the Apple Valley 2.6 SE, CA reporting station is approximately 6.19 inches (National Oceanic and Atmospheric Administration [NOAA] 2023a). Average snowfall at this station has not been reported. A summary of the precipitation patterns during the rainy seasons prior to the survey is provided in Table 2.

Table 2. Rainfall Data Summary (Inches)

Season	Station	Total Precipitation	Average Precipitation per Event	Total Snowfall
2019-2020[1]	Apple Valley 4.1 ENE, CA US	6.54	0.82	1.0
2020-2021[1]	Apple Valley 4.1 ENE, CA US	1.63	0.23	2.0
2021-2022[1]	Apple Valley 4.1 ENE, CA US	2.04	0.23	0
2022-2023[1]	Apple Valley 4.1 ENE, CA US	3.94	0.28	0

[1] Precipitation Data from October 1 – April 30 (NOAA 2023b)

Based on the average rainfall totals for the Apple Valley 2.6 SE, CA weather station, the 2019-2020 wet season was above average, while the 2020-2021 and 2021-2022 wet seasons were well below average, and the 2022-2023 wet season was below average.

A typical year analysis of the Study Area via a single point method was conducted using the USACE Antecedent Precipitation Tool (APT, USACE 2023). The APT is an automation tool that determines whether precipitation, drought, and other climatic conditions from the previous three months are *wet*, *normal*, or *dry* for the geographic area based on a rolling 30-year period (USACE 2023). The APT was run for the date the wetland delineation data was collected on February 22, 2023. The APT demonstrated the site conditions on these dates represent a time of year referenced as the wet season, and that site conditions were drier than normal in climatic conditions.

The Study Area consists of undeveloped land with disturbances present including scattered trash, unauthorized dump sites, and Off-Highway Vehicle (OHV) tracks that are scattered throughout the Study Area and along the western and northern boundaries. Surrounding land use consists primarily of undeveloped land. An industrial warehouse property is present south of the Study Area, west of Central Road and north of Johnson Road. In addition, a few commercial distribution centers, an Apple Valley Fire Station, the Apple Valley Airport, and scattered rural residences are present in the vicinity of the Study Area.

Vegetation within the Study Area is primarily composed of native shrub species including four-wing saltbush (*Atriplex canescens*), pencil cholla (*Cylindropuntia ramosissima*), creosote bush (*Larrea tridentata*), peach thorn (*Lycium cooperi*), and turpentine broom (*Thamnosma montana*). One nonnative herbaceous species, red-stemmed filaree (*Erodium cicutarium*), was also identified and prevalent within the Study Area. The dominant plant species present within the Study Area is creosote bush. No riparian vegetation was observed within the Study Area. A complete list of plant species observed within the Study Area is provided in Appendix B.

4.2 Hydrology

The region the Study Area is within is arid; therefore, there is little natural perennial surface water. As a result of the variability of rainfall, surface hydrology within the region is dominated by ephemeral washes, flowing only during storm events and remaining dry for most of the year. The hydrologic regime for the area follows the general subtropical desert climate, with cool, dry winters and hot, dry summers.

The Study Area is located in the Mojave watershed (HUC-8 #18090208) and the Apple Pond-Apple Valley Dry Lake subwatershed (HUC-12 #180902080304). The Mojave River, the largest stream in the vicinity of the Study Area, originates in the San Bernardino Mountains and flows northward through the high desert and provides underground hydrologic influence to Silver Lakes (two human-made navigable lakes in the unincorporated community of Helendale) before eventually terminating at Silver Dry Lake to the north of Baker in the central Mojave Desert.

The Study Area is located within the upper portion of the Apple Pond-Apple Valley Dry Lake subwatershed (USGS 2023a). On USGS topographic mapping, flows passing through the Study Area originate in the Granite Mountains located northeast of the Study Area and appear to terminate in the open desert southeast of Bell Mountain and near the Apple Valley Airport (USGS 2023a, 2023b).

4.3 Soils

The soil map units identified within the Study Area by NRCS are listed below along with their major drainage characteristic and NRCS hydric soil status (Figure 3, Table 3; NRCS 2023a, 2023b, 2023c). Field observations within mapped features were consistent with expectations based on mapped soil units for each of those respective areas.

Table 3. Natural Resources Conservation Service Soil Types within the Study Area

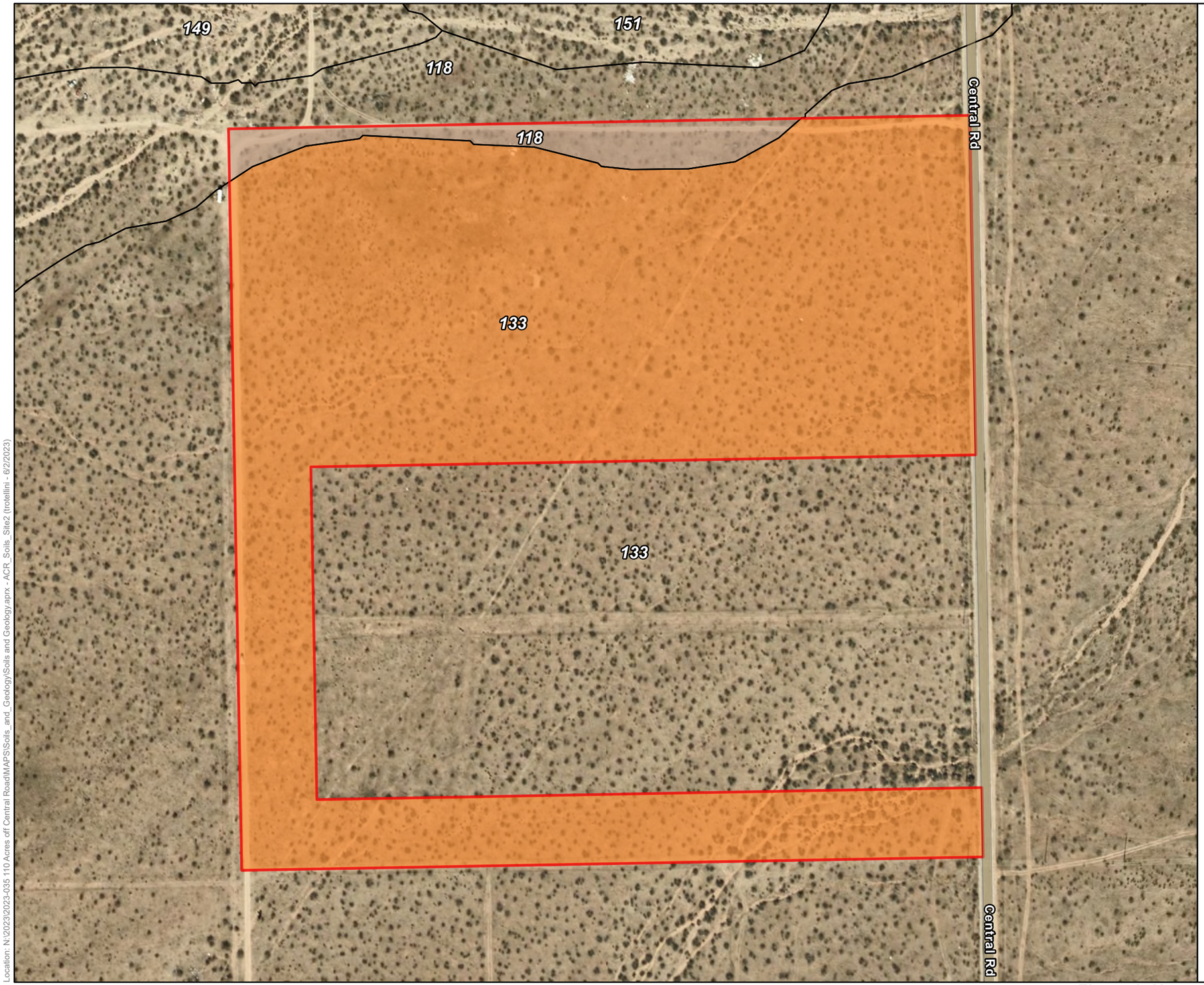
Map Unit Symbol	Map Unit Name	Taxonomic Class	Taxonomic Order	Drainage Class	Hydric Rating
118	Cajon-Arizo Complex, 2 to 15 percent slopes	Cajon: Loamy, mixed, thermic Typic Torripsamments Arizo: Sandy-skeletal, mixed, thermic, Typic Torriorthents	Entisol	Cajon: Somewhat excessively drained Arizo: Excessively drained	No
133	Helendale-Bryman loamy sands, 2 to 5 percent slopes	Helendale: Coarse-loamy, mixed, superactive, thermic Typic Haplargids Bryman: Fine-loamy, mixed, superactive, thermic Typic Haplargids	Aridisol	Well drained	No

4.4 National Wetlands Inventory

A review of the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI, USFWS 2023) indicates one blue-line stream within the Study Area. NWI classifies the feature as R4SBJ, or *Riverine, Intermittent, Streambed, Intermittently Flooded*. The feature is mapped on Figure 4 and was assessed during the jurisdictional delineation.

5.0 AQUATIC RESOURCES

Mapped aquatic resources within the Study Area include potential Waters of the U.S., potential Waters of the State, and CDFW jurisdiction. Each aquatic resource is depicted on Figures 5 and 6. No field datasheets were collected for this Project site because this Project site was part of a larger Study Area prior to being split into a separate submittal. Field datasheets from the greater area have been included in Appendix C to provide examples of site conditions for onsite waters features. Photo-documentation of representative aquatic resources is included as Appendix D. The USACE Operations and Maintenance Business Information Link Regulatory Module (ORM) aquatic resources table is included as Appendix E. Digital data for the survey is provided as Appendix F.



Map Contents

Project Area

Series Designation - Series Description

118- CAJON-ARIZO COMPLEX, 2 TO 15 PERCENT SLOPES*

133 - HELENDALE-BRYMAN LOAMY SANDS, 2 TO 5 PERCENT SLOPES*

Sources: ESRI, NRCS

Other Related Info if Needed

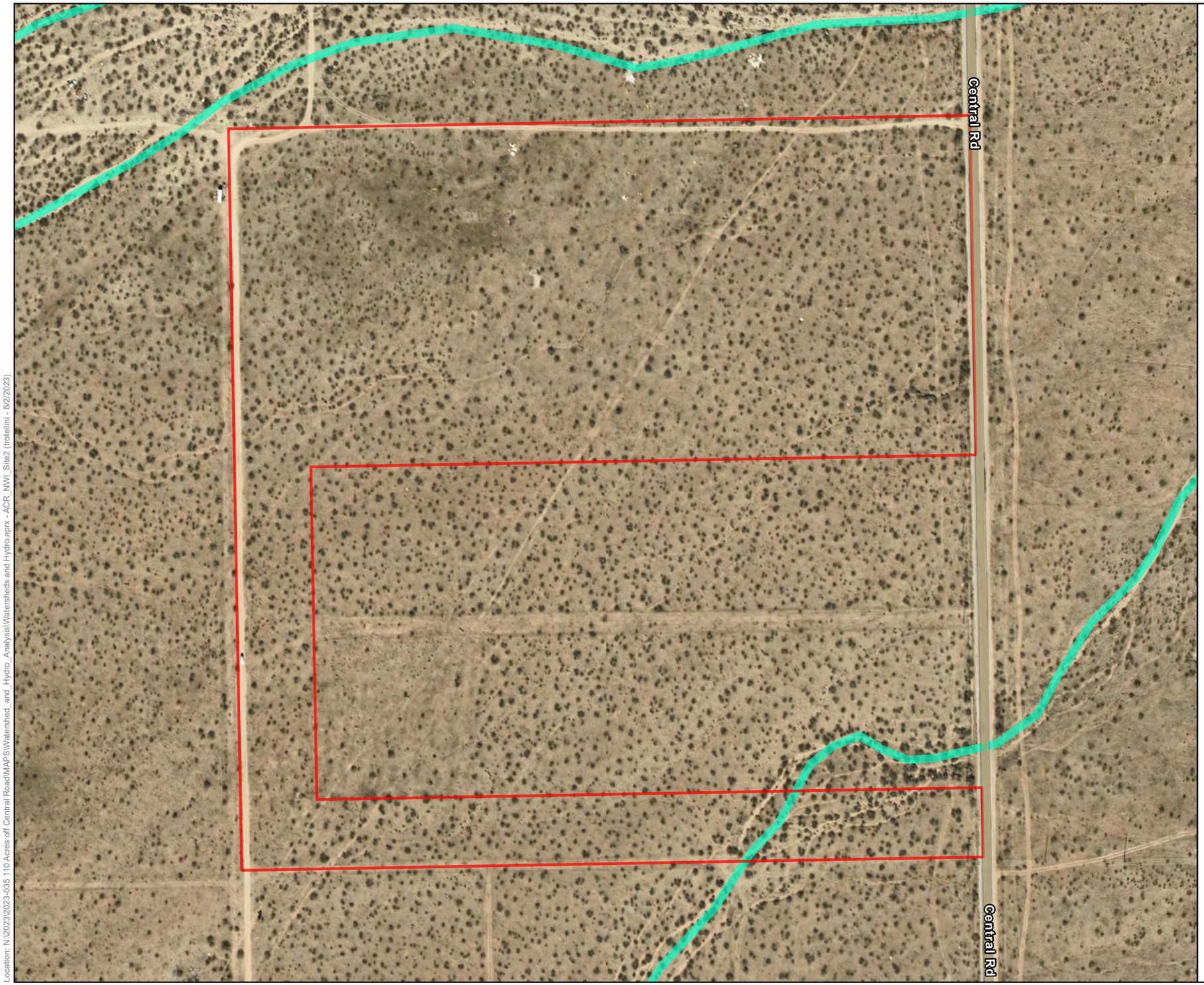
Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Soils_and_Geology\Soils and Geology.aprx - ACR_Soils_Site2 (trotellini - 6/2/2023)

Map Date: 6/2/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 3. Natural Resources Conservation Service Soil Types
Cordova Business Center
2023-035 110 Acres off Central Road



Map Contents

Project Area

NWI Type

Riverine

Sources: ESRI, NRCS

Other Related Info if Needed

Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Watershed_and_Hydro_Analysis\Watersheds and Hydro.aprx - ACR_NWI_Site2 (trotellini - 6/2/2023)

Map Date: 6/2/2023

ECORP Consultants, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 4. National Wetlands Inventory
Cordova Business Center
2023-035 110 Acres off Central Road

Map Contents

Project Area

USACE/RWQCB

Ephemeral Drainage - 0.966 Acres

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.

Sources: ESRI

Other Related Info if Needed

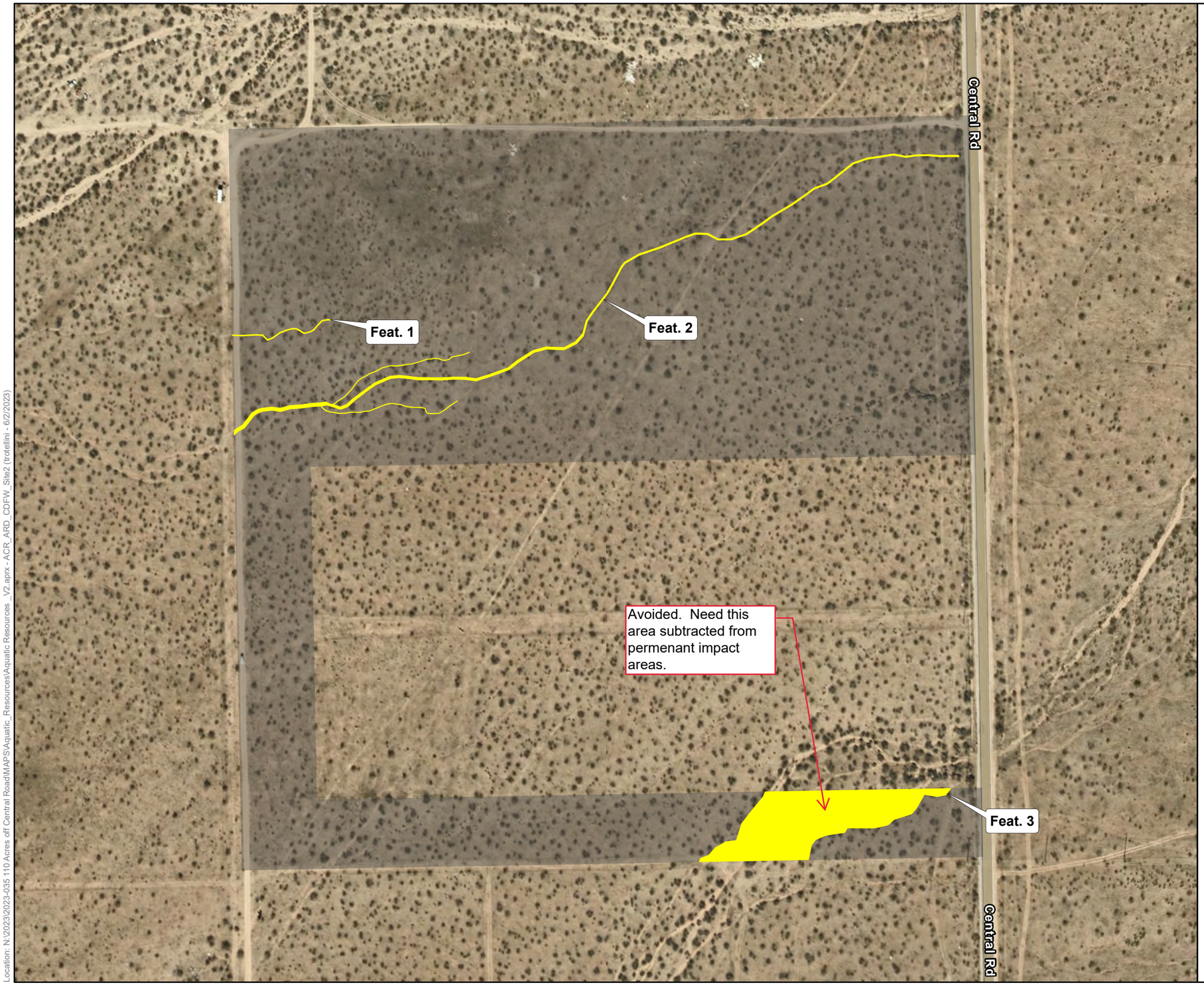
Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_FED_Site2 (trotellini - 6/13/2023)

Map Date: 6/13/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 5. Aquatic Resources Delineation
USACE/RWQCB - Cordova Business Center
2023-035 110 Acres off Central Road



Map Contents

Project Area

CDFW

Streambed - 1.094 Acres

Subject to California Department of Fish and Wildlife verification.

Sources: ESRI

Other Related Info if Needed

Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_CDFW_Site2 (trotellini - 6/2/2023)

Map Date: 6/2/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 6. Aquatic Resources Delineation
CDFW - Cordova Business Center
2023-035 110 Acres off Central Road

5.1 Potential Waters of the U.S./State

A total of 0.966 acres and 2,706 linear feet of potential Waters of the U.S./State have been mapped within the Study Area (Table 4), consisting entirely of non-wetland waters.

Table 4. Summary of Aquatic Resources[1]

Feature No.	Location (Latitude/ Longitude)	Waters of the U.S.[2] (Acre)	Waters of the State[2] (Acre)	CDFW[3] (Acre)	Resource Size (Linear Feet)	Cowardin Class[4]
1	34.607177, -117.176284	0.010	0.010	0.015	216	R6
2	34.607226, -117.174574	0.152	0.152	0.224	2,256	R6
3	34.604478, -117.172946	0.804	0.804	0.855	235	R6
	TOTAL[5]	**0.966**	**0.966**	**1.094**	**2,706**	

[1]Acreages and linear feet represent a calculated estimation and are subject to modification following agency verification. This analysis is not intended to interpret the definition of Waters of the U.S. based on the recent Supreme Court decision in the *Sackett v. USEPA* case.
[2] OHWM widths were used to estimate Waters of the State of California (Waters of the State) areas.
[3] TOB widths were used to estimate CDFW acreages.
[4] R6=Riverine, Ephemeral
[5]The acreage value for each feature has been rounded to the nearest 1/1000 decimal place. The totals represent a summation of unrounded values prior to being rounded.

5.1.1 Wetlands

There are no suspected wetlands within the Study Area. None of the aquatic features present within the Study Area supported wetland characteristics, based on soil characteristics and vegetation composition.

5.1.2 Other Waters of the U.S.

5.1.2.1 Ephemeral Drainage

Ephemeral drainages are linear features that exhibit a bed and bank and an OHWM. These features typically convey runoff for short periods of time, during and immediately following rain events, and are not influenced by groundwater sources at any time during the year.

There are three mapped features within the Study Area (Features 1 through 3), all of which are considered to be ephemeral drainages. Generally, all three features convey flows in a northeast to southwest direction. Feature 1 starts in the western portion of the Study Area and briefly flows west, leaving the Study Area along the western Project boundary. Feature 2 begins in the northeast corner of the Study Area and flows southwest, leaving the Study Area along the western Project boundary. Feature 3 enters

the Study Area in the southeast portion of the Study Area and briefly runs southwest through the Study Area, exiting along the southern boundary.

Soils within the ephemeral drainages consist of sandy loam with variable amounts of silt, sand, and pebbles. The ephemeral drainages mapped within the Study Area consist of natural bottom drainages that are partially unvegetated. Where vegetation exists in the channels, it consists of a nonnative upland species, red-stemmed filaree. The ephemeral drainage features do not support wetland characteristics, based on soil characteristics and vegetation composition. OHWM indicators observed within the ephemeral drainages included defined bed and bank, surface relief, change in vegetative cover between the active floodplain and the upland environment, silt and sand deposits, change in particle size distribution, and/or litter/debris. Wetland hydrology indicators were not observed in the upland areas adjacent to the drainage features. The boundaries of the ephemeral drainages were mapped at the OHWM, defined by the aforementioned indicators.

5.2 CDFW Jurisdiction

A total of 1.094 acres of potential CDFW jurisdiction has been mapped within the Study Area (Table 4) across Features 1 through 3, all of which are primarily unvegetated streambeds. Where vegetation occurs in the streambeds, the vegetation consists of red-stemmed filaree, a nonnative upland species. No riparian vegetation is present within the Study Area. Vegetation within the upland habitats in the Study Area is dominated by creosote bush.

6.0 JURISDICTIONAL ASSESSMENT

According to Regulatory Guidance Letter (08-02), an Applicant "may elect to use a preliminary [Jurisdictional Determination] JD to voluntarily waive or set aside questions regarding CWA/Rivers and Harbor Act of 1899 jurisdiction over a particular site, usually in the interest of allowing the landowner or other affected party to move ahead expeditiously to obtain a USACE permit authorization where the party determines that it is in his or her best interest to do so" (USACE 2008c). Under a Preliminary Jurisdictional Determination (PJD), all aquatic resources mapped onsite are presumed jurisdictional and regulated under the CWA. Conclusions made based upon a PJD are not binding to the USACE.

In light of the recent Supreme Court decision in the *Sackett* case, the USACE is not issuing Approved Jurisdictional Determinations (AJD) at this time (June 2023).

The onsite ephemeral drainages are non-navigable and non-relatively permanent waters. These drainages originate from Black Mountain to the northeast and flow in a southwesterly direction away from the Study Area towards the Apple Valley Airport. Surface waters then infiltrate. None of the drainages onsite possess a surface hydrologic connection to any downstream Waters of the U.S. In addition, the onsite ephemeral drainages do not appear to support any surface water-related interstate commerce. However, USACE will need to determine whether the onsite ephemeral drainages are jurisdictional under Section 404 of the CWA.

The ephemeral drainages mapped onsite would likely be regulated under the Porter-Cologne Water Quality Control Act, as overseen by the Lahontan RWQCB. In addition, the aquatic resources mapped as *streambed* would also likely be regulated under Section 1600 of the California Fish and Game Code.

7.0 CONCLUSION AND RECOMMENDATIONS

A total of approximately 0.966 acres of ephemeral drainages have been mapped within the Study Area. The ephemeral drainages mapped onsite are subject to USACE verification. The ephemeral drainages would likely be jurisdictional under the Porter-Cologne Water Quality Control Act. In addition, approximately 1.094 acres of streambed would likely be regulated under California Fish and Game Code Section 1600, as streambed. These acreages represent a calculated estimation of the jurisdictional area within the Study Area and are subject to modification following an agency review and/or verification process.

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LIST OF APPENDICES

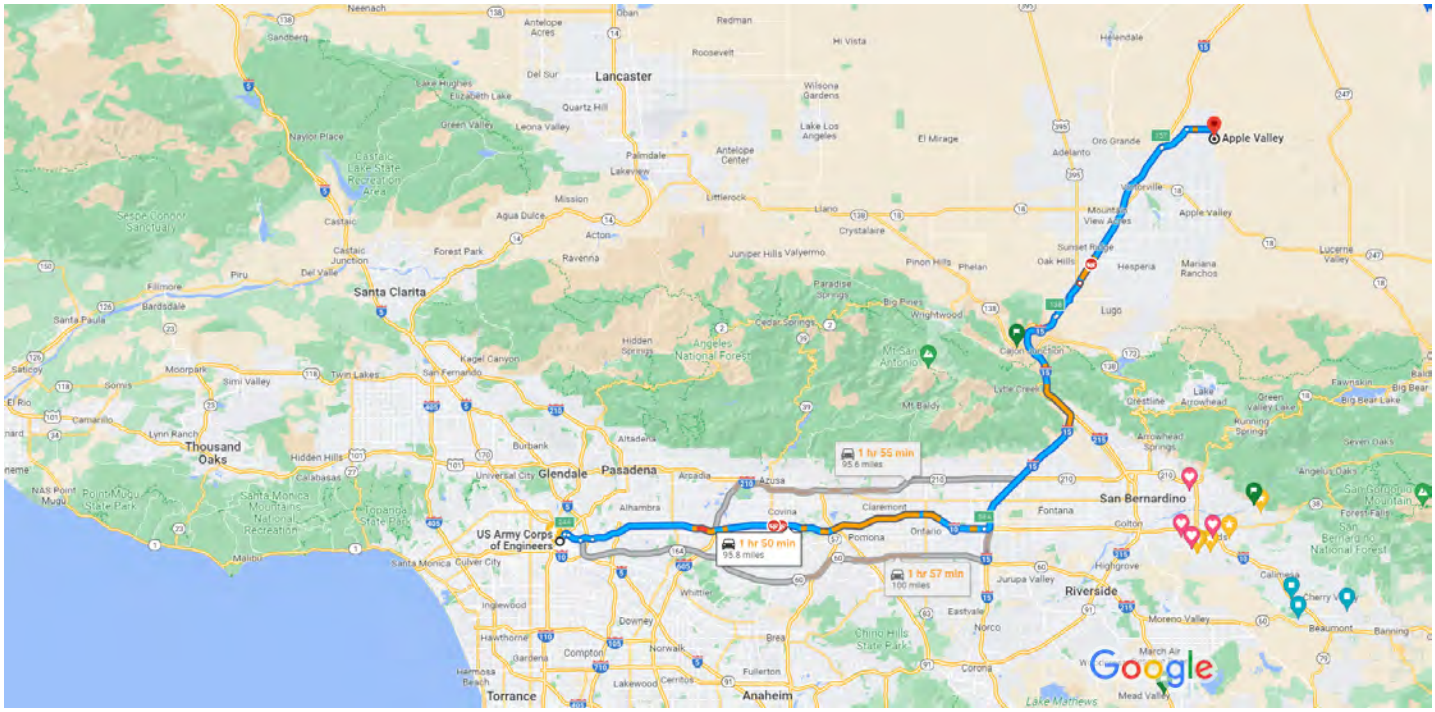
APPENDIX A

Driving Directions to Study Area

Google Maps

US Army Corps of Engineers, 915 Wilshire Blvd, Los Angeles, CA 90017 to Apple Valley, California

Drive 95.8 miles, 1 hr 50 min



Map data ©2023 Google 5 mi

US Army Corps of Engineers
915 Wilshire Blvd, Los Angeles, CA 90017

Get on CA-110 N/Harbor Fwy from S Figueroa St

2 min (0.5 mi)

1. Head southeast on Wilshire Blvd toward S Figueroa St

315 ft

2. Turn left at the 1st cross street onto S Figueroa St

0.2 mi

3. Turn left at the 3rd cross street onto W 5th St

184 ft

4. Slight right to merge onto CA-110 N/Harbor Fwy

0.2 mi

Take I-10 E and I-15 N to Stoddard Wells Rd in Apple Valley. Take exit 157 from I-15 N

1 hr 28 min (88.9 mi)

5. Merge onto CA-110 N/Harbor Fwy

0.5 mi

6. Use the right 3 lanes to take exit 24A toward I-5 S/I-10 E

0.4 mi

7. Merge onto US-101 S

1.3 mi

8. Keep left at the fork to continue on San Bernardino Fwy, follow signs for I-10 E/San Bernardino

1.2 mi

9. Continue onto I-10 E/San Bernardino Fwy

38.7 mi

10. Use the right 2 lanes to take exit 58A to merge onto I-15 N/Ontario Fwy toward Barstow/Las Vegas

Continue to follow I-15 N

27.2 mi

11. Take exit 138 toward Oak Hill Rd

0.2 mi

12. Turn left onto Mariposa Rd

4.0 mi

13. Turn left onto Joshua St

266 ft

14. Turn right to merge onto I-15 N

15.1 mi

15. Take exit 157 for Stoddard Wells Rd toward Bell Mountain

0.2 mi

Continue on Stoddard Wells Rd. Take Quarry Rd to Central Rd

8 min (6.4 mi)

16. Turn left onto Stoddard Wells Rd

3.0 mi

17. Turn right onto Quarry Rd

2.6 mi

18. Turn right onto Central Rd

Destination will be on the right

0.9 mi

Apple Valley
California

APPENDIX B

Plant Species Observed

Scientific Name	Common Name	Wetland Indicator Status
VASCULAR PLANTS		
ANGIOSPERMS (DICOTYLEDONS)		
CACTACEAE	CACTUS FAMILY	
Cylindropuntia echinocarpa	silver cholla	N/L
Cylindropuntia ramosissima	pencil cholla	N/L
Opuntia basilaris	beavertail cactus	N/L
CHENOPODIACEAE	GOOSEFOOT FAMILY	
Atriplex canescens	four-wing saltbush	N/L
GERANIACEAE	GERANIUM FAMILY	
*Erodium cicutarium**	red-stemmed filaree	N/L
RUTACEAE	RUE FAMILY	
Thamnosma montana	turpentine broom	N/L
SOLANACEAE	NIGHTSHADE FAMILY	
Lycium cooperi	peach thorn	N/L
ZYGOPHYLLACEAE	CALTROP FAMILY	
Larrea tridentata	creosote bush	N/L
ANGIOSPERMS (MONOCOTYLEDONS)		
AGAVACEAE (or Liliaceae)	AGAVE FAMILY	
Yucca brevifolia	Joshua tree	N/L

* nonnative species

Wetland Status Codes:
OBL - Obligate Wetland; Almost always occur in wetlands
FACW - Facultative Wetland; Usually occur in wetlands, but may occur in non-wetlands
FAC - Facultative; Occur in wetlands and non-wetlands
FACU - Facultative Upland; Usually occur in non-wetlands, but may occur in wetlands
UPL - Obligate Upland; Almost never occur in wetlands
N/L - Plants that are Not Listed; Does not occur in wetlands in any region

APPENDIX C

Field Datasheets

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: 110 Acres off Central Rd
Project Number: 2023-035
Stream: Unnamed, OHWM-1
Investigator(s): C. Brown, M. Panzino

Date: 2/22/23 **Time:** 1130
Town: Apple Valley **State:** CA
Photo begin file#: N/A **Photo end file#:** N/A

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: drainage in Apple Valley

Projection: **Datum:** NAD83
Coordinates: 34.602754, -117.167977

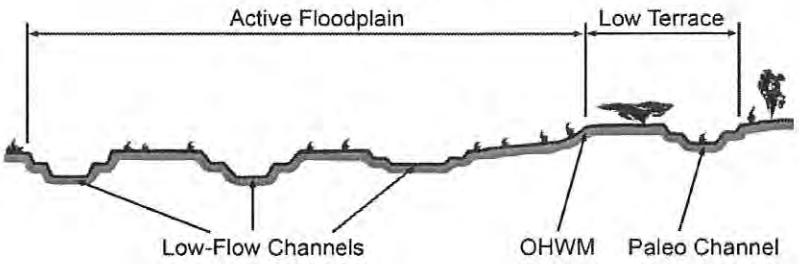
Potential anthropogenic influences on the channel system: OHV vehicle tracks upstream and downstream
trash

Brief site description: unnamed drainage in the town of Apple Valley, North of Johnson Rd and East of Central Rd

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 5/30/2022
- ☒ Topographic maps
- ☐ Geologic maps
- ☒ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

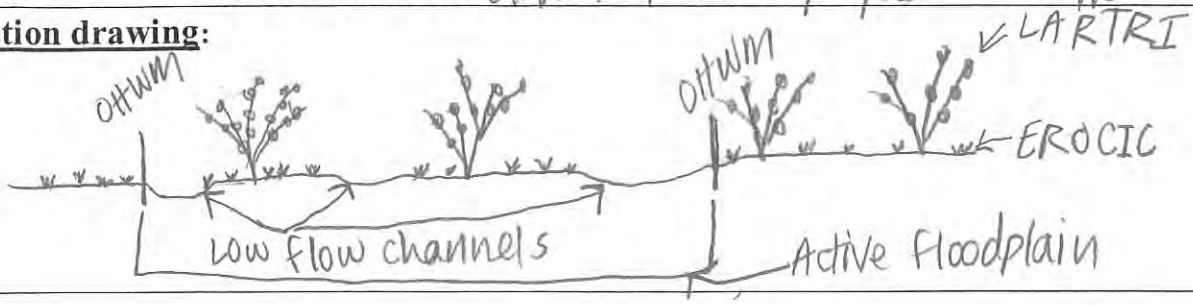


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

Project ID: 2023-035 **Cross section ID:** OHWM-1 **Date:** 2/22/23 **Time:** 1130

Cross section drawing:



OHWM

GPS point: 34.602754, -117.167977

Indicators:

- [x] Change in average sediment texture
- [ ] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:

Floodplain unit: [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: 34.602754, -117.167977

Characteristics of the floodplain unit:

Average sediment texture: very coarse sand to medium silt

Total veg cover: 2 % Tree: 0 % Shrub: 0 % Herb: 2 %

Community successional stage:

- [ ] NA
- [x] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [x] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [x] Surface relief
- [x] Other: change in particle size
- [ ] Other: _____
- [ ] Other: _____

Comments:

Project ID: 2023-035 **Cross section ID:** OHWM-1 **Date:** 2/22/23 **Time:** 1130

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 34.602755, -117.167982

Characteristics of the floodplain unit:

Average sediment texture: fine silt

Total veg cover: 55 % Tree: 0 % Shrub: 10 % Herb: 45 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☒ Surface relief
- ☒ Other: silt deposits
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____ % Shrub: _____ % Herb: _____ %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: 110 Acres off Central Rd
Project Number: 2023-035
Stream: unnamed, OHWM-2
Investigator(s): C. Brown, M. Panzino

Date: 2/22/23 **Time:** 1415
Town: Apple Valley **State:** CA
Photo begin file#: N/A **Photo end file#:** N/A

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: drainage in Apple Valley

Projection: **Datum:** NAD83
Coordinates: 34.606442, -117.170156

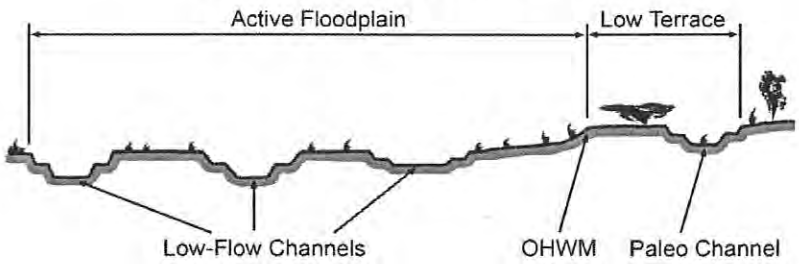
Potential anthropogenic influences on the channel system:
trash in channel, dirt road east of channel

Brief site description: unnamed drainage in Apple Valley, north of Johnson and east of Central Rd

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 5/30/2022
- ☒ Topographic maps
- ☐ Geologic maps
- ☒ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

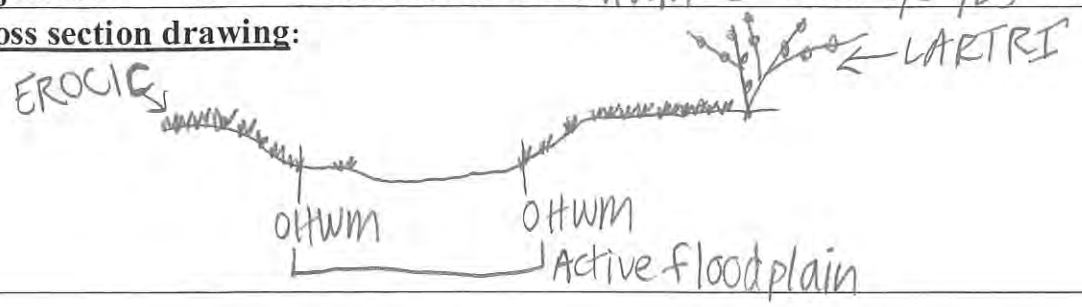


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☒ GPS
   - ☐ Digitized on computer
   - ☐ Other:

Project ID: 2023-035 **Cross section ID:** OHWM-2 **Date:** 2/22/23 **Time:** 1415

Cross section drawing:



OHWM

GPS point: 34.606442, -117.170156

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit:

☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 34.606442, -117.170156

Characteristics of the floodplain unit:

Average sediment texture: coarse sand to pebble

Total veg cover: 10 % Tree: 0 % Shrub: 0 % Herb: 10 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☒ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

APPENDIX D

Representative Site Photographs

Photo 1. Representative photo of Study Area, dominated by creosote bush, facing northeast.

Photo 2. Unauthorized dump site located near the northwest corner of the Study Area, facing east.

Photo 3. Small partially vegetated ephemeral drainage (Feature 1) with red-stemmed filaree cover present within channel and in surrounding upland areas, facing east.

Photo 4. Feature 2 with silt and sand deposits present, facing northeast.

Photo 5. Feature 3 located in the southern portion of the Study Area with a defined bed and bank, change in vegetative cover, and litter present, facing southwest.

Photo 6. Braided ephemeral drainage (Feature 3) located east of Central Road, facing southwest.

APPENDIX E

USACE ORM Aquatic Resources Table

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
Feat. 1	CALIFORNIA	R6	RIVERINE	Area	0.01	ACRE	DELINEATE	34.60718	-117.17628	
Feat. 2	CALIFORNIA	R6	RIVERINE	Area	0.152	ACRE	DELINEATE	34.60723	-117.17457	
Feat. 3	CALIFORNIA	R6	RIVERINE	Area	0.804	ACRE	DELINEATE	34.60448	-117.17295	

APPENDIX F

Digital Data (Provided Electronically)

MEMORANDUM

TO: Mr. Adir Cohen, Cordova Business Center, LLC

FROM: Ms. Chelsie Brown

DATE: July 7, 2023

RE: Potential Impact Assessment of Aquatic Resources for the Cordova Business Center Project

This memorandum provides an evaluation of potentially regulated resources within the Study Area that may be affected by the proposed Cordova Business Center Project (Project). For purposes of the Aquatic Resources Delineation, the Study Area includes the footprint of Assessor's Parcel Number 0463-491-09. The results of the Aquatic Resources Delineation are depicted on Figures 1 and 2.

POTENTIAL IMPACTS

According to the Project site plan provided by the client, the majority of the Study Area is anticipated to be affected by the current Project design. Two of the three aquatic resources (Features 1 and 2) mapped within the Study Area occur within the Project impact area (Figures 3 and 4). The Project design would avoid potential impacts to Feature 3. The calculated acreages of each feature within the Project impact area are presented in Table 1. These calculations serve as an estimate and are subject to agency verification. All potential Project impacts are considered permanent impacts, and there are no anticipated potential temporary Project impacts.

Table 1. Permanent Impacts by Agency[1]

Feature No.	Waters of the U.S.[2]		Waters of the State[2]		California Department of Fish and Wildlife[3]	
	Acre	Linear Feet	Acre	Linear Feet	Acre	Linear Feet
1	0.010	216	0.010	216	0.015	216
2	0.150	2,227	0.150	2,227	0.221	2,227
3	-	-	-	-	-	-
TOTAL[4]	**0.160**	**2,443**	**0.160**	**2,443**	**0.236**	**2,443**

[1]Acreages and linear feet represent a calculated estimation and are subject to modification following the U.S. Army Corps of Engineers (USACE) verification process. This analysis is not intended to interpret the definition of Waters of the U.S. based on the recent Supreme Court decision in the *Sackett v. USEPA* case.
[2] Ordinary high-water mark widths were used to estimate Waters of the State areas.
[3] Top-of-bank widths were used to estimate California Department of Fish and Wildlife (CDFW) acreages.
[4]The acreage value for each feature has been rounded to the nearest 1/1000 decimal place. The totals represent a sum of unrounded values prior to rounding.

2525 Warren Drive ● Rocklin, CA 95677 ● Tel: (916) 782-9100 ● Fax: (916) 782-9134 ● www.ecorpconsulting.com

PERMIT REQUIREMENTS

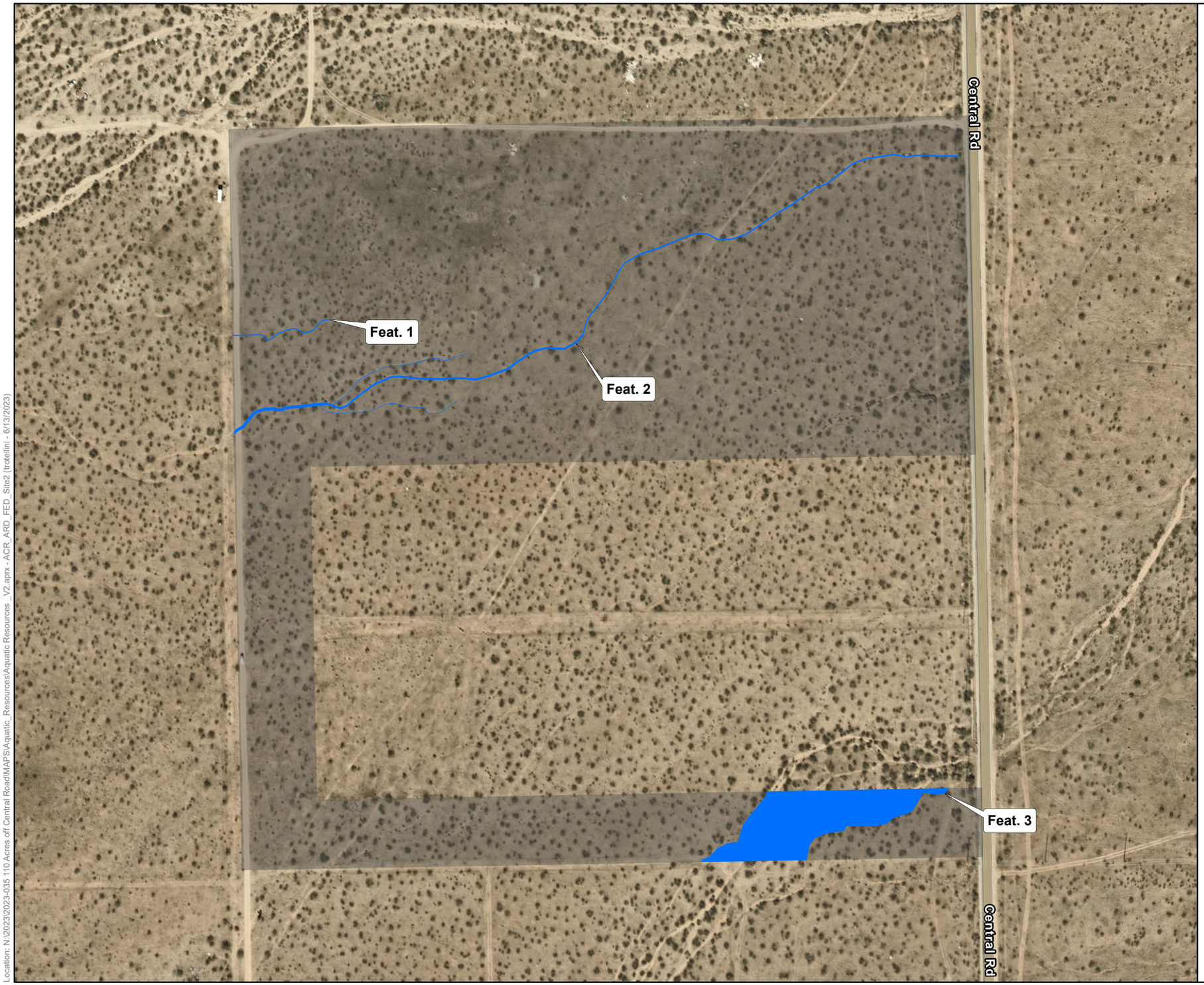
Project development would result in approximately 0.160 acre of permanent impacts to potential Waters of the U.S. and/or Waters of the State, pending Agency verification. It is unclear at this time how the USACE and USEPA will interpret the Supreme Court's recent decision in the *Sackett v. U.S. Environmental Protection Agency* case pertaining to Waters of the U.S. The proposed Project would result in permanent impacts to approximately 0.236 acre CDFW-regulated habitats. No temporary impacts are expected for this Project.

Project impacts to Waters of the U.S./State will require a Section 404 Clean Water Act permit and Section 401 Water Quality Certification or Waste Discharge Requirements if the waters onsite are not Waters of the U.S. The Project will also require Section 1600 Streambed Alteration Agreement permitting with the CDFW for impacts to CDFW streambed habitat.

If you have any questions regarding the content of this memorandum, please contact me at (909) 307-0046.

Prepared by: Chelsie Brown Date July 7, 2023

LIST OF FIGURES



Map Contents

Project Area

USACE/RWQCB

Ephemeral Drainage - 0.966 Acres

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.

Sources: ESRI

Other Related Info if Needed

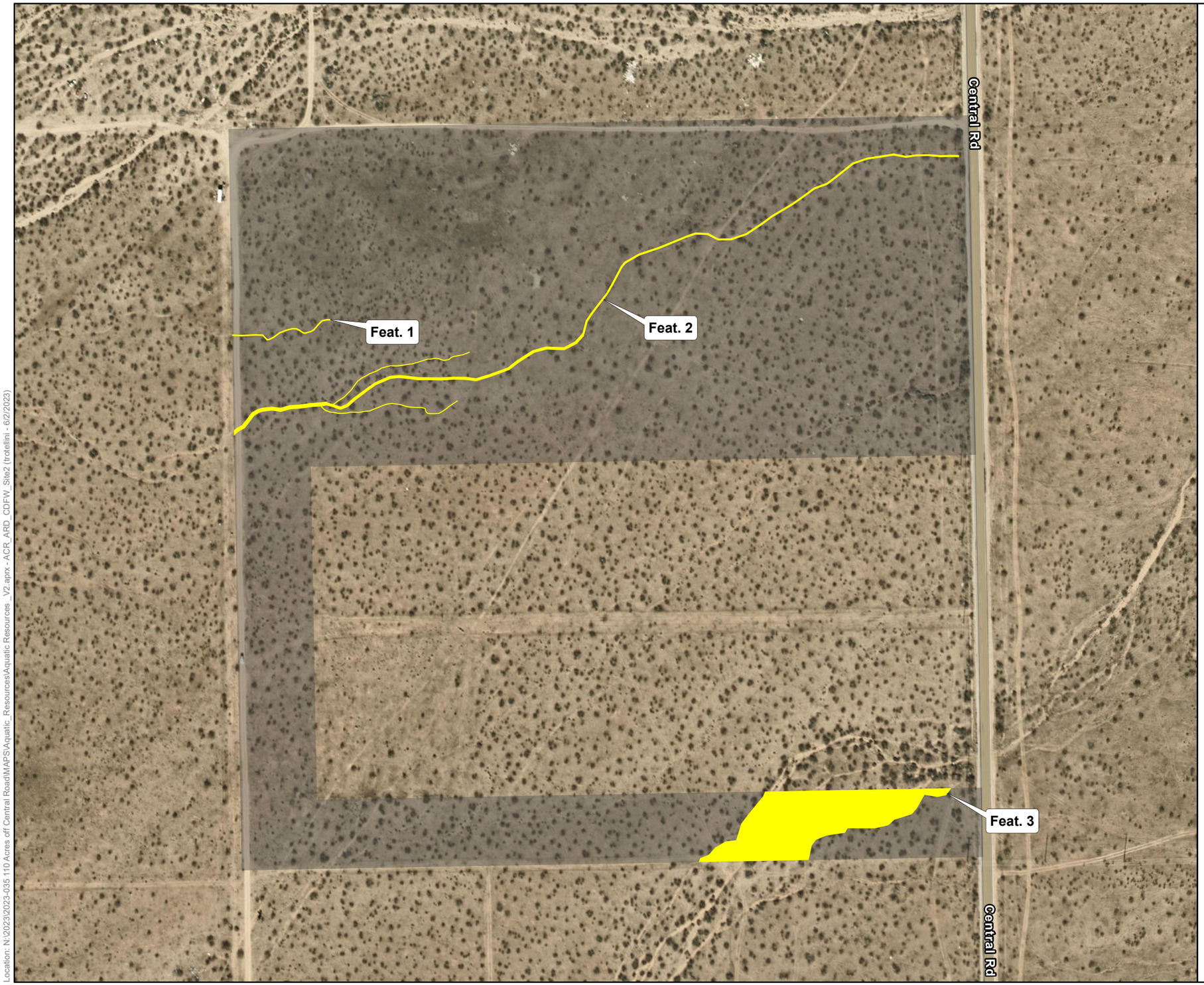
Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_FED_Site2 (trotellini - 6/13/2023)

Map Date: 6/13/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 1. Aquatic Resources Delineation
USACE/RWQCB - Cordova Business Center
2023-035 110 Acres off Central Road



Map Contents

Project Area

CDFW

Streambed - 1.094 Acres

Subject to California Department of Fish and Wildlife verification.
Sources: ESRI
Other Related Info if Needed

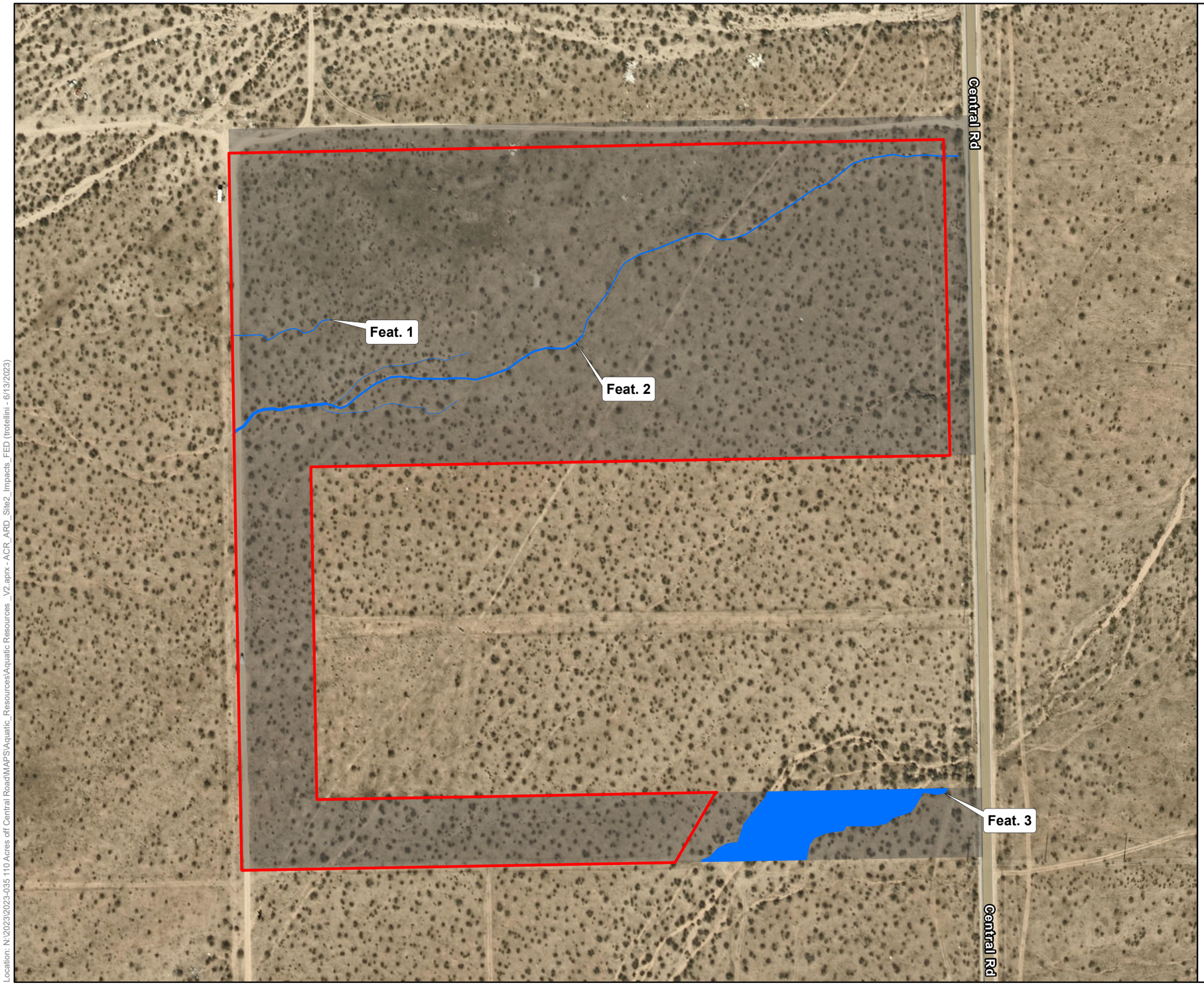
Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_CDFW_Site2 (trctellini - 6/2/2023)

Map Date: 6/2/2023

ECORP Consultants, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 2. Aquatic Resources Delineation
CDFW - Cordova Business Center
2023-035 110 Acres off Central Road



Map Contents

- Project Area
- Project Impact Area

USACE/RWQCB

- Ephemeral Drainage

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.

Sources: ESRI

Other Related Info if Needed

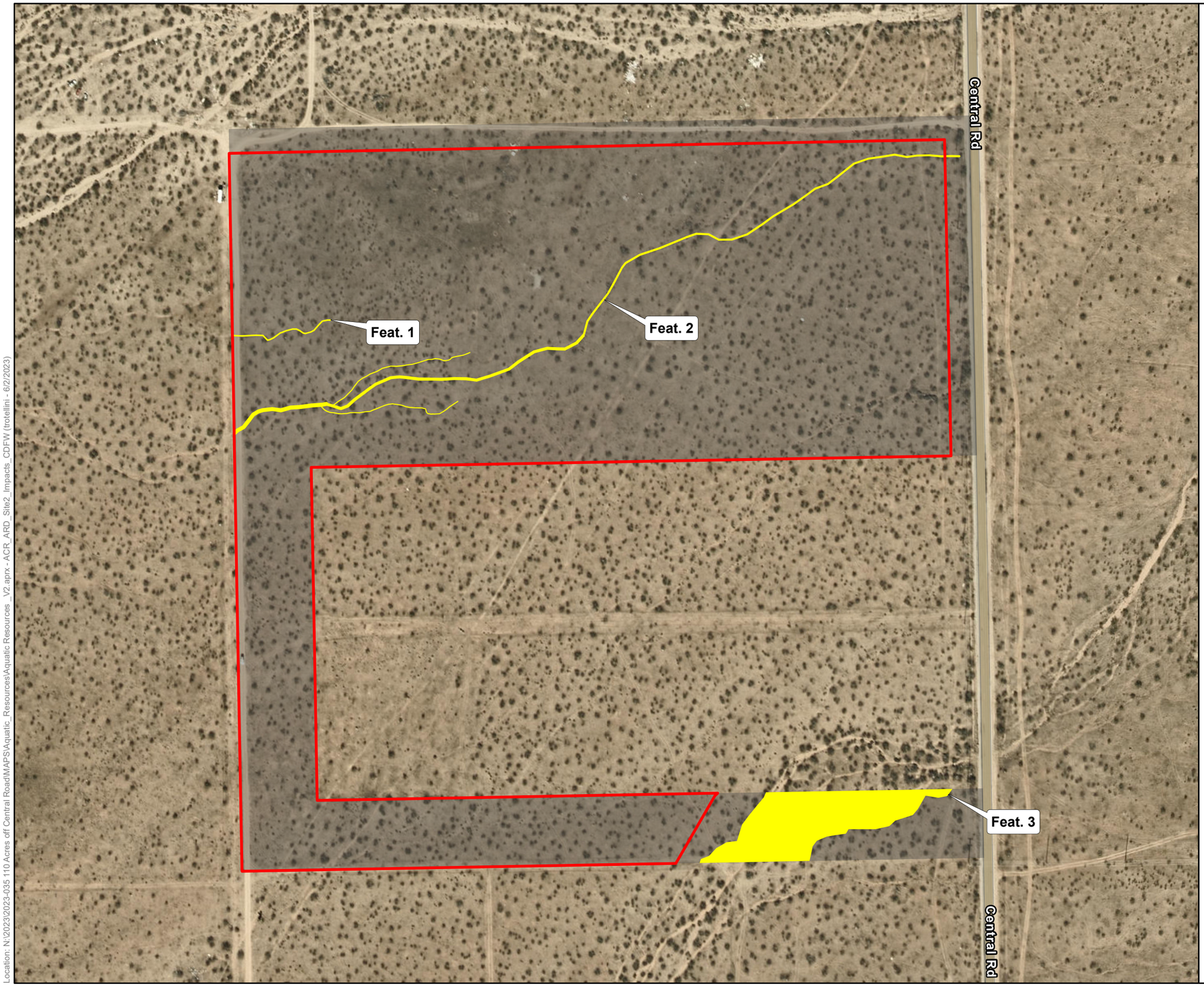
Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_Site2_Impacts_FED (trotellini - 6/13/2023)

Map Date: 6/13/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 3. Aquatic Resources Delineation Impacts
USACE/RWQCB - Cordova Business Center
2023-035 110 Acres off Central Road



Map Contents

- Project Area
- Project Impact Area

CDFW

- Streambed

Subject to California Department of Fish and Wildlife verification.
Sources: ESRI
Other Related Info if Needed

Location: N:\2023\2023-035 110 Acres off Central Road\MAPS\Aquatic_Resources\Aquatic Resources _V2.aprx - ACR_ARD_Site2_Impacts_CDFW (trotellini - 6/2/2023)

Map Date: 6/2/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

Figure 4. Aquatic Resources Delineation Impacts
CDFW - Cordova Business Center
2023-035 110 Acres off Central Road

BIOLOGICAL RESOURCES ASSESSMENT
Apple Valley 3PL Center

Prepared for:
Adir Cohen
AV 3PL Center LLC
1019 Avenue P, Suite 501
Brooklyn, NY 11223

Prepared by:
David N Lee Consulting 315
Meigs Rd, Suite A-180 Santa
Barbara, CA 93109

TABLE OF CONTENTS

Tables

Figures

Appendices

Abbreviation	Definition
A	Absent
APN	Assessor Parcel Number
BRA	Biological Resources Assessment
CBI	Conservation Biology Institute
CBR	CNPS Considered But Rejected
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CH	Critical Habitat
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
EO	Executive Order
FC	Federal Candidate
FE	Federal Listed Endangered
FESA	Federal Endangered Species Act
FP	CDFW Fully Protected
FPD	Federally proposed for delisting
FPE	Federally proposed for listing as endangered
FPT	Federally proposed for listing as threatened
HP	Habitat Present
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
NHD	National Hydrography Dataset
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NWI	National Wetland Inventory
P	Present
RWQCB	Regional Water Quality Control Board
SCE	State candidate for delisting
SCE	State candidate for listing as endangered
SCT	State candidate for listing as threatened
SE	State Listed Endangered
SR	State Rare
SSC	CDFW Species of Special Concern
ST	State Listed Threatened
SWPPP	Stormwater Prevention Plan

SWRCB	State Water Resources Control Board
Town	Town of Apple Valley
WDR	Water Discharge Requirements
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife
USGS	U.S. Geological Survey

SECTION 1 INTRODUCTION

1.1 Purpose and Need

The Biological Resources Assessment (BRA) describes biological resources (vegetation, habitats, listed plant and animal species) on and around the Project Area shown on **Figures 1** and **2**. This report is being prepared as part of the Town of Apple Valley (Town) Land Use Permit application (California Environmental Quality Act (CEQA) for project developments.

1.2 Project Description

The Proposed Project or Project Area (i.e., Project) is approximately 30 acres of industrial third-party logistic facilities on a single parcel in Apple Valley, San Bernardino County, Ca; Assessor's Parcel Number (APN) Parcel 9, APN number 0463491090000 (approximately 30 acres). This report addresses biological resources on Parcel 9.

- Elevation: 3148 feet AMSL
- USGS quadrangle: Apple Valley North
- Assessor Parcel Number (APN): 0463491090000
- Parcel Size: 30 acres

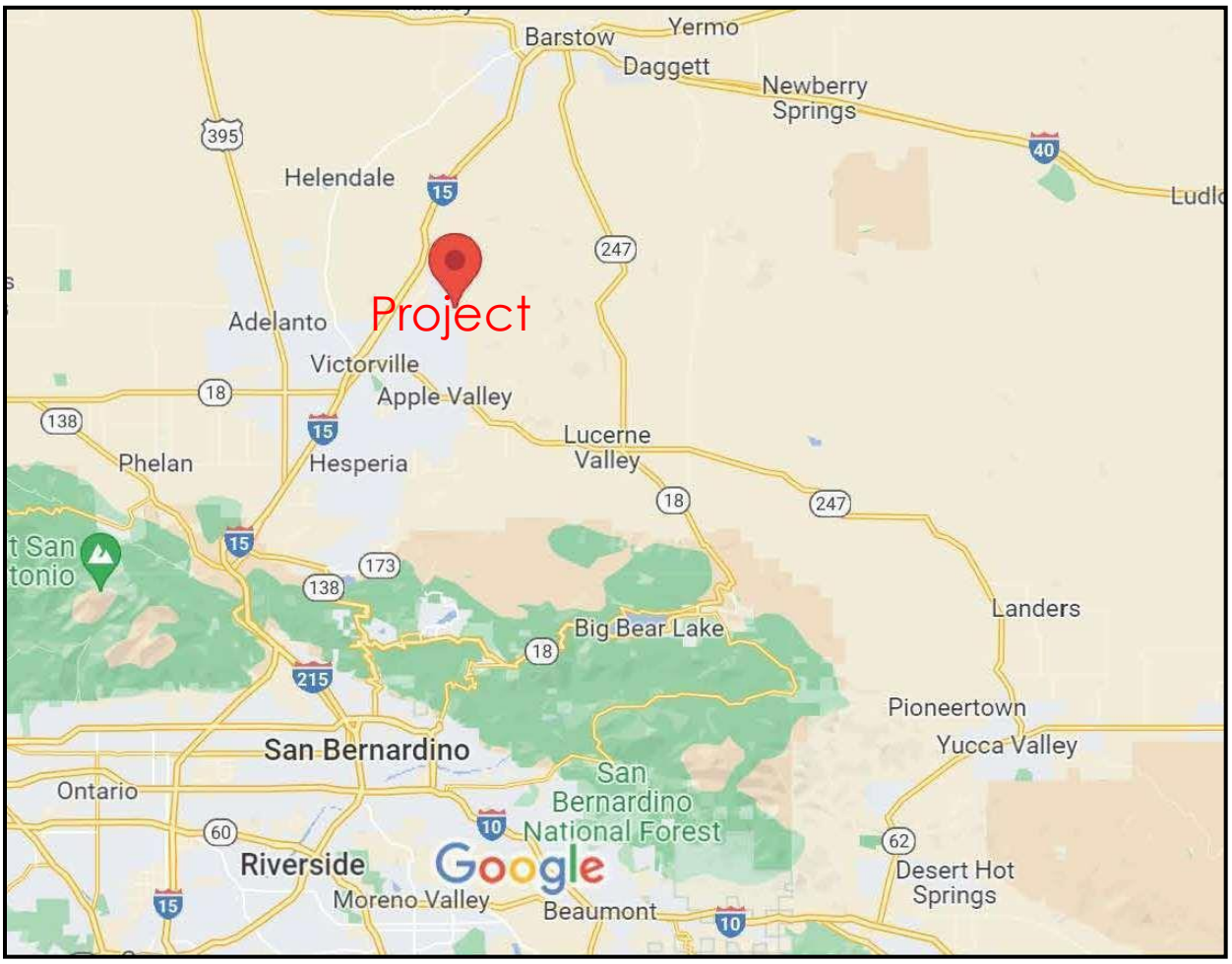


Figure 1. Regional Project Location

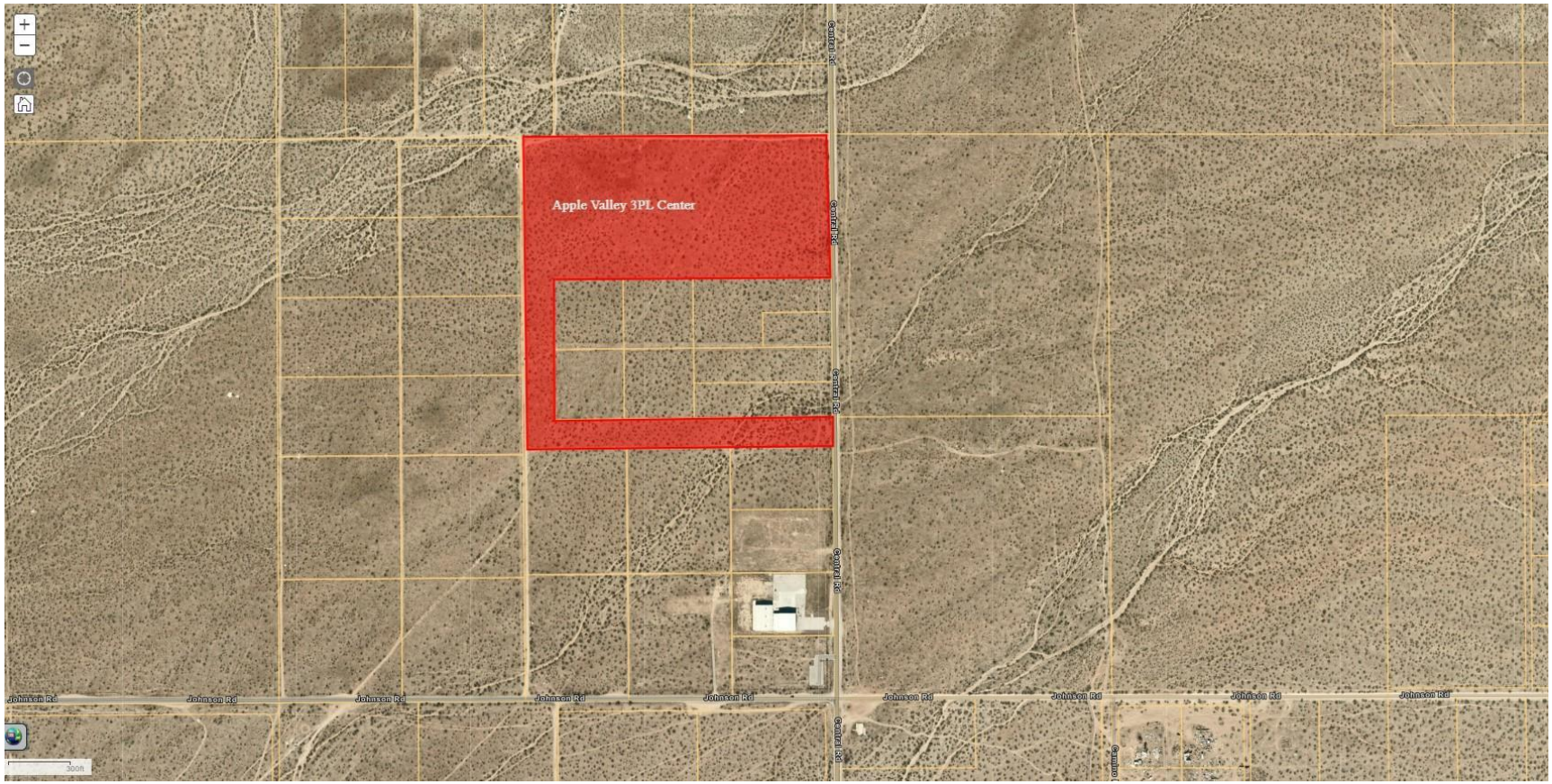


Figure 2. Project Area

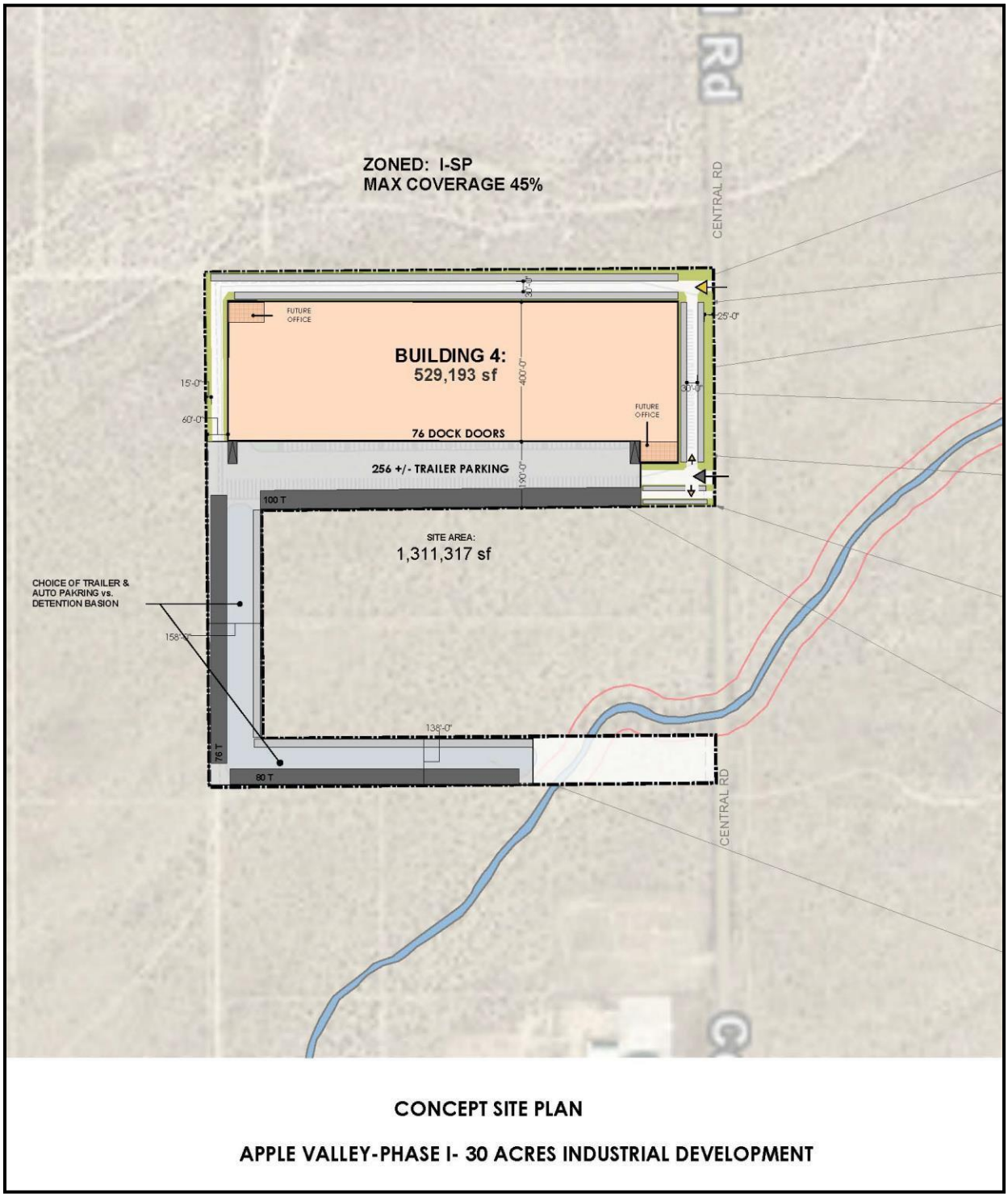


Figure 3. Parcel 9 Site Plan

SECTION 2 METHODS

An evaluation of biological resources was conducted to determine whether any special status plant or wildlife species, or their habitat, or sensitive habitats, occur in the Project. The Study Area includes the Proposed Project/Project Area and adjacent survey area. Data on special status species and habitats known in the area were obtained from state and federal agencies. Maps and aerial photographs of the Project and surrounding areas were reviewed.

A field survey was conducted to determine the habitats present. The field survey, map review, and a review of the biology of evaluated species and habitats were used to determine the special status species and sensitive habitats that could occur in the Project. Special status species in this BRA are those listed (or candidate or proposed) under the federal or state Endangered Species Acts, under the California Native Plant Protection Act, as a California species of special concern (SSC) or fully protected by the CDFW, or that are assigned a California Rare Plant Rank (CNPS 2022). The survey included any potential special status natural communities in this BRA are waters, riparian communities, and any natural community ranked S1, S2, or S3 by CDFW (2022).

2.1 Personnel and Survey Dates

All portions of the Project were surveyed by David N. Lee, Senior Biologist with David N. Lee Consulting on September 5 and 6, 2022 conducted the fieldwork for the BRA, as shown in Table 1, below. The BRA report was prepared by biologists David Carr and David Lee.

Table 1. Personnel and Survey Dates

Date	Personnel	Purpose of Visit/Survey
9/5/2022	David Lee	Biological Resources Assessment
9/6/2022	David Lee	Biological Resources Assessment

Photographs of the site were taken and are included in **Appendix A**.

Any listed species observed were noted and included in **Appendix B**. This general site survey was not intended to detect specific listed animals or plants, and protocol-level surveys for listed species were not conducted during the site visits based in part on the time of year and duration of the surveys (i.e., reconnaissance level). If needed, focused/protocol-level surveys will be recommended in the mitigation section below.

In addition to the field surveys, a desktop literature review was conducted to determine which listed species occur in the project region. The probability of occurrence was evaluated based on historic records and current land use of the parcel. Online databases of listed plants and animals were reviewed further described below in the results section.

2.2 Agency Coordination and Professional Contacts

No agency coordination or professional contacts were initiated at this time for the BRA.

SECTION 3 REGULATORY REQUIREMENTS

Field studies were conducted in accordance with acceptable protocols and industry standards, and in a way to maximize the detectability of special status species that may be present within the Project during the time of the survey. Surveys were conducted during the appropriate season, in good weather conditions, by qualified staff. Therefore, no limitations that may influence the results of field surveys associated with this Project

The purpose of the BRA is to document biological studies and perform analyses and evaluations necessary to satisfy the legal requirements of federal, state, and local statutes. Applicable statutes are described below.

3.1 Clean Water Act

The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

3.1.1 Section 404

Establishes a permit program administered by U.S. Army Corps of Engineers (USACE) which regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). USACE has jurisdiction over fill materials in essentially all water bodies, including wetlands. All federal agencies are to avoid impacts to wetlands whenever there is a practicable alternative.

3.1.2 Section 402(p)

Establishes a permit under the National Pollution Discharge Elimination System (NPDES) program for discharges of storm water resulting from ground disturbing construction activities such as grading. For ground disturbing construction activities of more than one acre, a NPDES Phase II permit from the Regional Water Quality Control Board (RWQCB) is required. The preparation of a Stormwater Pollution Prevention Plan (SWPPP) is a requirement of the NPDES Phase II permit.

3.1.3 Section 401

Requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S., must obtain a state certification that the discharge complies with other provisions of the CWA. The State Water Resources Control Board (SWRCB) and RWQCB administer the certification program in California.

3.2 Rivers and Harbors Act

The Rivers and Harbors Act requires permits in navigable waters of the U.S. for all structures such as riprap, and activities such as dredging. Navigable waters are defined as those that are subject to the ebb and flow of the tide and susceptible to use in their natural condition or by reasonable improvements as means to transport interstate or foreign commerce. USACE grants or denies permits based on the effects on navigation. Most activities are covered under this act.

3.3 Porter-Cologne Water Quality Control Act

In 1969, the State Legislature enacted the *Porter-Cologne Water Quality Control Act*, put forward further water protection efforts in California. Through the Act, the Water Boards have been entrusted with broad duties and powers to preserve and enhance the state's complex waterscape.

The Clean Water Act requires the states or the U.S. Environmental Protection Agency (USEPA) to set standards for surface water quality, mandate sewage treatment and regulate wastewater

discharges into the nation's surface waters. The State has assumed responsibility for enforcing the Clean Water Act, thus the Act provides for melding state and federal processes together for activities such as setting water quality standards, issuing discharge permits and operating the grants program.

3.4 Federal Endangered Species Act of 1973

The Federal Endangered Species Act (FESA) of 1973 defines an endangered species as any animal or plant listed by regulation as being in danger of extinction throughout all or a significant portion of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range.

Without a special permit, federal law prohibits the "take" of any individuals or habitat of federally listed species.

- Under Section 9 of the FESA, take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." Enforcement of FESA is administered by the U.S. Fish and Wildlife Service (USFWS). Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a)(1)(A) permits (authorized take permits) are issued for scientific purposes. Section 10(a)(1)(B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species.
- Critical habitat is designated for the survival and recovery of species listed as threatened or endangered under the FESA. Critical habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of a FESA listed species which may require special management considerations or protection. Critical habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.
- Section 7 (a)(2) requires federal agencies to evaluate the proposed project with respect to listed or proposed listed, species and their respective critical habitat (if applicable). Federal agencies must employ programs for the conservation of listed species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat."

As defined by FESA, "individuals, organizations, states, local governments, and other nonfederal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.

Section 10(a) of the FESA authorizes the issuance of incidental take permits and establishes standards for the content of habitat conservation plans.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the FESA. The

designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., permit from the USACE).

If USFWS determines that Critical Habitat will be lost or adversely modified from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with Caltrans to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy critical habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency follows the opinion.

3.5 Bald and Golden Eagle Protection Act

Per the USFWS website Bald and Golden Eagle Protection Act | U.S. Fish & Wildlife Service (fws.gov).The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, including their parts (including feathers), nests, or eggs.

The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle

... [or any golden eagle], alive or dead, or any part (including feathers), nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." Regulations further define "disturb" as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior" (50 CFR 22.6).

In addition to immediate impacts, this definition also covers effects that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

3.6 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) is an agreement with Canada, Mexico, and Japan that makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season. California Fish and Game Code Sections 3503 and 3503.5 (protection of birds' nests) and 3513 (taking Migratory Bird Treaty Act birds) also prohibit the destruction of any nest, egg, or nestling. Treaties signed by the U.S., Great Britain, Mexico, Japan, and the countries of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg, or parts thereof listed in this document. The Secretary of the Interior can issue permits for incidental take of migratory bird species. As with the FESA, the MBTA also allows the Secretary of the Interior to grant permits for the incidental take of these protected migratory bird species.

3.7 Executive Order 13112 – Invasive Species

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Under the EO, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

3.8 California Environmental Quality Act (P.R.C. 21000 et seq.)

The California Environmental Quality Act (CEQA) requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. CEQA applies to all discretionary projects proposed to be conducted or approved by a California public agency, including private projects requiring discretionary government approval.

3.9 California Endangered Species Act (California Fish & Game Code 2050 et seq.)

The California Endangered Species Act (CESA) prohibits take of wildlife and plants listed as threatened or endangered by the California Fish and Game Commission. "Take" is defined under California Fish and Game Code (CFGC) as any action or attempt to "hunt, pursue, catch, capture, or kill." CESA allows exceptions for take that occur during otherwise lawful activities. Section 2081 of the CFGC describes the requirements needed for incidental take applications under CESA. Incidental take of state-listed species may be authorized if an applicant submits a plan that minimizes and mitigates the impacts of take. CFGC Sections 1602, 86, 1900-1913) Section 1602 of the CFGC requires any person, government agency, or public utility proposing any activity that will divert or obstruct the natural flow or change the bed, channel, or bank of any river, stream, or lake, or proposes to use any material from a streambed, must first notify the CDFW of such proposed activity. The CFGC defines 'take' (Section 86) and prohibits 'taking' of a species listed as threatened or endangered under CESA (CFGC Section 2080) or otherwise fully protected, as defined in CFGC Sections 3511, 4700, and 5050. Section 1900-1913 of the CFGC describes regulations to determine if a species, subspecies, or variety of native plant is endangered or rare; and governing the taking, possession, propagation, transportation, exportation, importation, or sale of endangered or rare native plants.

3.10 California Desert Native Plants Act

Per CDFW, "The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino and San Diego counties. Within these counties, the CDNPA prohibits the harvest, transport, sale or possession of specific native desert plants under many circumstances unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee."

3.11 Town of Apple Valley Municipal Code Chapter 9.76 - Plant Protection and Management

3.11.1 9.76.020 - Desert Native Plant Protection

The Town finds that it is in the public interest to preserve and protect specified desert native plants and provide for the conservation and wise use of our desert resources, through regulation, guidelines and enforcement that manage the removal or harvesting of such plants. It is also necessary to augment and coordinate with the State Department of Food and Agriculture in its efforts to implement and enforce the Desert Native Plant Act.

3.11.2 9.76.030 - Riparian Plant Conservation

The Town finds that it is in the public interest to promote healthy and abundant riparian habitats. Riparian habitats are located along the sides of canyon bottoms, streams and rivers, providing watershed protection as well as control transmission and storage of natural water supplies. Riparian areas provide a unique wildlife habitat and contribute to an attractive environment. Riparian areas also provide natural soil erosion and sedimentation control protecting stream banks subject to erosion and undercutting. In addition, riparian areas provide sufficient shade to reduce temperature and evaporation and the growth of algae in streams. The provisions of this Chapter are designed to augment and coordinate with the responsibilities of the California Department of Fish and Game.

The Town finds that it is in the public interest to promote the continued health of this Town's abundant and diverse plant resources by providing regulations and guidelines for the management of the plant resources in the Town of Apple Valley on property or combinations of property under private or public ownership for the following purposes:

1. To promote and sustain the health, vigor and productivity of plant life and aesthetic values within the Town through appropriate management techniques;

2. To conserve the native plant life heritage for the benefit of all, including future generations;

3. To protect native trees and plants from indiscriminate removal, and to regulate such activity;

4. To provide a uniform standard for appropriate removal of native trees and plants in public and private places and streets to promote conservation of these valuable natural resources;

5. To protect and maintain water productivity and quality in local watersheds; and

6. To preserve rare plants and protect animals with limited or specialized habitats.

3.11.3 9.76.040 - Joshua Trees

According to the Town municipal code, "*It is the stated intent and desire of the Town Council of the Town of Apple Valley to recognize and preserve the contribution that Joshua Trees have made to the desert environment and, more specifically, to the Town's "Better Way of Life". In conformance with this recognition, no existing Joshua Tree shall be disturbed, moved (transplanted or otherwise), removed or destroyed unless such disturbance, move, removal or destruction is first reviewed and approved by the Town of Apple Valley.*"

3.12 Literature Review

The database searches were conducted in September 2022 and include the following items:

- An unofficial species list was obtained from the USFWS Information for Planning and Consultation (IPaC) website based on the Carlsbad Fish and Wildlife Office information. The list identifies the federal-listed, candidate, and proposed species within USFWS jurisdiction that potentially occur in or could be affected within the Project.
- The CDFW California Natural Diversity Database (CNDDB) was queried for known occurrences of special-status species on the Project quad (Apple Valley North).
- The California Native Plant Society (CNPS) inventory of rare and endangered plants was queried for known occurrences of special-status plants in or near the PROJECT.
- This Project is located outside of National Oceanic and Atmospheric Administration (NOAA) Fisheries jurisdiction; therefore, a NOAA Fisheries species list is not required, and no effects to NOAA Fisheries species are anticipated. A National Marine Fisheries Service (NMFS) data search is not required.
- Data Basin maintained by the Conservation Biology Institute (CBI)
- U.S. Geological Survey (USGS) National Hydrography Dataset
- USFWS National Wetland Inventory (NWI)

Data received were used to compile a table of regional species and habitats of concern (i.e., listed, proposed and rare species by the Town, USFWS, CNDDB, and CNPS) in Appendix C.

It is the stated intent and desire of the Town Council of the Town of Apple Valley to recognize and preserve the contribution that Joshua Trees (Yucca brevifolia) have made to the desert environment and, more specifically, to the Town's "Better Way of Life". In conformance with this recognition, no existing Joshua Tree shall be disturbed, moved (transplanted or otherwise), removed or destroyed unless such disturbance, move, removal or destruction is first reviewed and approved by the Town of Apple Valley. The Town Manager, or designee, shall be responsible for review and approval of any request to disturb, move (transplant or otherwise), remove or destroy any existing Joshua Tree located on any property within any zoning district in the Town of Apple Valley. Forms for such review shall be available within the Planning Division.

Further, while it is the intent and desire of the Town to preserve and protect all Joshua Trees, this intent and desire shall be balanced against the community's need for growth and the development rights of individual property owners. To achieve this preservation and protection, while protecting both the property rights of property owners and the community's desert environment, anyone submitting an application to disturb, move, remove or destroy an existing Joshua Tree shall use all means necessary to retain and preserve such Tree(s) in its native (present) location in considering and presenting said Tree Disturbance application. This application shall take into consideration lot configuration, potential property development (buildable envelope), onsite circulation and all associated and related infrastructure needed to support construction within the buildable

envelope. Further, persons submitting an application for a discretionary review or for any subdivision of land within the Town of Apple Valley upon which a Joshua Tree(s) is present, shall use all reasonable means available to retain and preserve the Tree(s) in its native (present) location in considering and presenting said application or subdivision request with regard to lot location and configuration, potential property development (buildable envelope), circulation system and all associated and related infrastructure.

SECTION 4 RESULTS

4.1 Literature Review

The database searches were conducted in September and October 2022. Data received were used to compile a table of regional species and habitats of concern (i.e., listed, proposed and rare species by the Town, USFWS, CNDDB, and CNPS) in Appendix C.

It is the stated intent and desire of the Town Council of the Town of Apple Valley to recognize and preserve the contribution that Joshua Trees (Yucca brevifolia) have made to the desert environment and, more specifically, to the Town's "Better Way of Life". In conformance with this recognition, no existing Joshua Tree shall be disturbed, moved (transplanted or otherwise), removed or destroyed unless such disturbance, move, removal or destruction is first reviewed and approved by the Town of Apple Valley. The Town Manager, or designee, shall be responsible for review and approval of any request to disturb, move (transplant or otherwise), remove or destroy any existing Joshua Tree located on any property within any zoning district in the Town of Apple Valley. Forms for such review shall be available within the Planning Division.

Further, while it is the intent and desire of the Town to preserve and protect all Joshua Trees, this intent and desire shall be balanced against the community's need for growth and the development rights of individual property owners. To achieve this preservation and protection, while protecting both the property rights of property owners and the community's desert environment, anyone submitting an application to disturb, move, remove or destroy an existing Joshua Tree shall use all means necessary to retain and preserve such Tree(s) in its native (present) location in considering and presenting said Tree Disturbance application. This application shall take into consideration lot configuration, potential property development (buildable envelope), onsite circulation and all associated and related infrastructure needed to support construction within the buildable envelope. Further, persons submitting an application for a discretionary review or for any subdivision of land within the Town of Apple Valley upon which a Joshua Tree(s) is present, shall use all reasonable means available to retain and preserve the Tree(s) in its native (present) location in considering and presenting said application or subdivision request with regard to lot location and configuration, potential property development (buildable envelope), circulation system and all associated and related infrastructure.

4.2 Description of Existing Physical and Biological Conditions

The Project is located both within the town limits of Apple Valley, San Bernardino County, California. The Study Area identified for the Project includes the Project site boundaries. The Project is depicted on the Apple Valley North 7.5-minute United States Geological Survey (USGS) quadrangle topographic map. The approximately 30-acre Project site is composed of a single parcel. Land surrounding the Project consists of primarily of desert scrub and a patchwork of industrial buildings and roads.

4.2.1 Physical Conditions

The Project is located on the Apple Valley North quadrangle at approximately 3148 above sea level primarily undeveloped with the exception of dirt roads and power line.

4.2.2 Soils

Soil throughout the subject property is classified as Cajon-Arizo complex, 2 to 15 percent slopes predominant in the northern portion of the Project and Helendale-Bryman loamy sands, 2 to 5 percent slopes to the south (USDA, 2022).

4.2.3 Biological Conditions

Biological communities are defined by species composition and relative abundance. Biological communities found within the Project in the summer of 2022 are listed in Table 2. Vegetation alliances were identified according to A Manual of California Vegetation, Online Edition (CNPS 2022). Biological communities in the Study Area are described in the legend below as listed in Appendix C. The descriptions include plant species identified during the field surveys.

LEGEND:

- Absent [A] - no habitat present and no further work needed.
- Habitat Present [HP] -habitat is or may be present. The species may be present.
- Present [P] – the species is present.
- Critical Habitat [CH] - Project footprint is located within a designated critical habitat unit but does not necessarily mean that appropriate habitat is present.
- Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FPE, FPT, FPD); Federal Candidate (FC), State Endangered (SE); State Threatened (ST); CDFW Fully Protected (FP); State Rare (SR); CDFW Species of Special Concern (SSC); Watchlist (WL); CNPS Considered But Rejected (CBR)

4.3 Regional Species and Habitats and Natural Communities of Concern

The CNDDB RareFind 6 online software and the CDFW BIOS database was queried for reported locations of listed and special status plant and animal species as well as special status natural plant communities within five miles of the Project. The CNPS Inventory of Rare and Endangered Plants of California supplied information regarding the distribution and habitats of vascular plants in the vicinity of the Project. The habitat assessment was used to assess the ability of the plant communities found on-site to provide suitable habitat for relevant special status plant and animal species. In addition, the USFWS IPaC database was searched generating a report which is automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the USFWS jurisdiction that are known or expected to be on or near the project area.

The CNDDB, IPaC, and CNPS literature search identified three (3) special status plant species and eight (9) special status animal species as having the potential to occur within the Apple Valley North USGS 7.5-minute quadrangle summarized in Appendix C. No natural communities of special concern were identified. The IPaC database search identified seven (4) federally listed species that could occur within the Project. A minimum of sixteen (16) special status species have the potential to occur within the Study Area given the combined results of the CNDDB, CNPS, and IPaC database searches (refer to **Appendix C**). Special status plant and animal species were evaluated for their potential to occur within the Project boundaries based on habitat requirements, availability, and quality of suitable habitat, and known distributions. One special status plant species and one animal species of special

concern were identified within Study Area during the field assessment. **Appendix C** summarizes conclusions from analysis and field surveys regarding the potential occurrence of listed and special status plant and animal species within the Project.

Larrea tridentata Shrubland Alliance or Creosote bush scrub was the only habitat/vegetation community present withing the Project. Per CNPS, "*Larrea tridentata is dominant or co-dominant in the shrub canopy with Acamptopappas shockleyi, Acamptopappus sphaerocephalus, Ambrosia dumosa, Ambrosia salsola, Atriplex confertifolia, Atriplex hymenelytra, Aptriplex polycarpa, Brickellia incana, Encelia farinosa, Epheddra california, Ephedra nevadensis and Lycium andersonii. Emergent trees may be present at low cover, including Prosopis glandulosa or Yucca brevifolia.*"

Table 2. Biological Communities

Biological Community	Acreage
Larrea tridentata Shrubland Alliance (Creosote Bush Scrub)	30.0

4.3.1 Wetlands and Other Waters Coordination Summary

A single wash was observed on site that will need to be further delineated as to state and federal jurisdiction in the southeast corner of the parcel shown on **Figure 4**. The wash was also identified as part of the USFWS NWI dataset. A formal jurisdiction delineation is recommended to be conducted. Based on the findings of the jurisdictional delineation coordination with CDFW, RWQCB, and USACE may be necessary to secure appropriate regulatory permits.

Disturbed areas with the project consisted primarily of dirt roads crisscrossed due to offroad activity as well as a power line running through the Project. Some areas of the Project have also received significant trash dumping including old electronics, broken glass and assorted trash items.

4.4 Invasive Species

Invasive and noxious weed species include species listed by the CDFA, and other exotic pest plants designated by the Cal-IPC. At the time of the field surveys, invasive plant species were uncommon within the Project which is dominated by native Creosote Bush Scrub. No invasive plant species listed on the USDA Federal Noxious Weed List were observed.

4.5 Habitat Connectivity

Habitat linkages provide interconnection between larger undeveloped habitat areas that are separated by development. Wildlife corridors are like linkages but provide specific opportunities for animals to disperse or migrate between areas and do not necessarily provide "live-in" habitat. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor

to be adequate for one species but inadequate for others. Wildlife corridors are significant features to provide a buffer against both human disturbance and natural fluctuations in resources.

The Project is adjacent to other undeveloped natural habitat, however there are existing roads that bisect the natural habitats, including Central Road to the west, Johnson Road to the south and further to the north Quarry Road. While roads can be utilized by some wildlife, they typically negatively impact biological resources, inhibiting movement and connectivity. The area immediately around the Project is not designated formally as providing key habitat connectivity to special status species.

4.6 Survey Results

4.6.1 Special Status Plant Species

Two individual Joshua tree were observed as well as habitat capable of supporting other special status plant species as detailed in **Appendix C** and shown on **Figure 4**. A rare plant survey including species inventory covered by the Town is recommended to be conducted during the appropriate blooming period to detect the species. Based on the findings of the rare plant survey, mitigation measures such as avoidance, relocation, in-lieu fee program, or offsite restoration may be appropriate.

4.6.2 Invasive Species

No California listed invasive species were observed during our general biological surveys of the Parcel 9.-

4.6.3 Special Status Animal Species

One special status species was observed in the vicinity (not directly within the Project Area), a Prairie Falcon, as well as evidence of nesting birds. No other special status species were observed or detected within the Project. Please see **Figures 2 and 3** for a map of the survey area.

Several special status animal species have the potential to occur within the Project, however some do not have formal protection under the FESA, CESA or CFGC. Currently no further surveys/documentation is required, however please be advised that species status may change based on regulatory changes on the local, state, and federal levels.

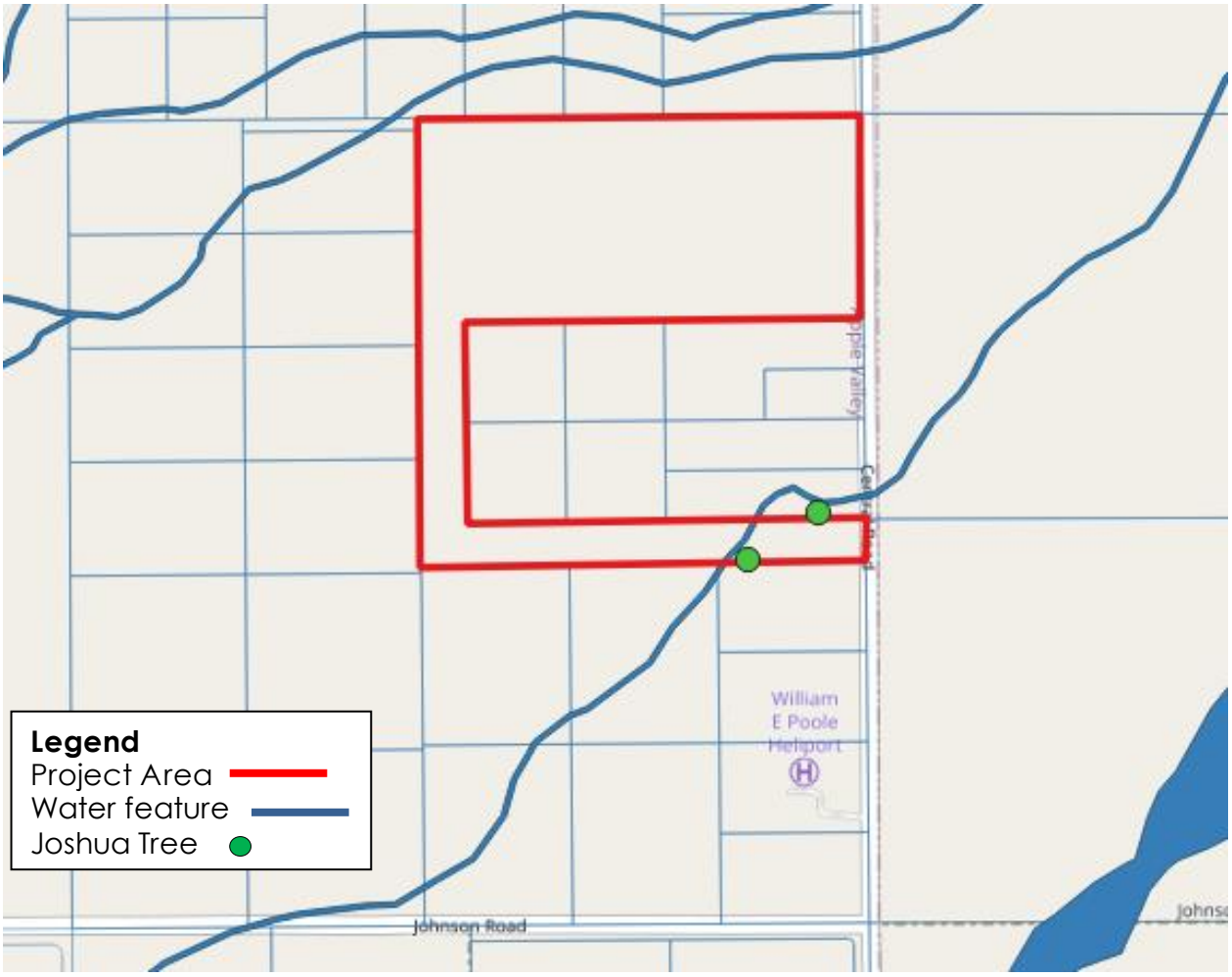


Figure 4. Biological Resources

4.7 Regulatory Requirements Summary

4.7.1 Federal Endangered Species Act Consultation Summary

The FESA protects plant and animal species listed as threatened or endangered. In this case, federally listed species may occur within the Project area (IPaC September 2022). The Project area does not lie within or adjacent to any designated critical habitat for federally listed species therefore none will be affected. Specifically, desert tortoise may occur, and it is recommended to consult with USFWS/CDFW as to the need for protocol-level focused surveys to confirm absence/presence. No other species covered under the FESA are likely to occur within the project and are considered absent.

This Project is located outside of NOAA Fisheries jurisdiction; therefore, a NOAA Fisheries species list is not required and no effects to NOAA Fisheries species are anticipated.

4.7.2 Migratory Bird Treaty Act

Avoidance of impacts to nesting migratory and resident birds is a requirement under the MBTA. To avoid impacting nesting birds, construction should occur outside of the avian nesting season (February 1st to August 31st). If construction is to occur during nesting bird season, a preconstruction nesting bird survey by a qualified biologist will be needed prior to disturbance. If nesting birds are present, no work would be permitted near the nest until young have fledged. While there is no established protocol for nest avoidance, when consulted, the CDFW generally recommends avoidance buffers of about 500 feet for birds-of-prey, and 100 to 300 feet for songbirds.

4.7.3 California Endangered Species Act Consultation Summary

The CESA protects plant and animal species listed as threatened or endangered. In this case, there are state-listed species that may occur within the Project area. Specifically desert tortoise and Mohave ground squirrel may occur, and it is recommended to consult with CDFW as to the need for protocol-level focused surveys to confirm absence/presence.

4.7.4 Town of Apple Valley Chapter 9.76 - Plant Protection and Management

"A removal permit shall be required for the removal of any native tree or plant that is subject to the provisions of Town Municipal Code Section 9.76. Disturbing, moving (transplanting or otherwise), removal or destruction of an existing Joshua Tree(s) shall be subject to the provisions of Section 9.76.040.

A land use application, a building permit and all other development permits (e.g., grading, mobile home set downs), shall consider and include a review of any proposed application and/or development permit shall be a permit for the removal of native trees or plants, if such land use application or development permit specifically reviews and approves such removals. Such reviews shall consider and require compliance with the provisions of this Chapter.

The reviewing authority may require certification from an appropriate tree expert or desert native plant expert that such tree removals are appropriate, supportive of a healthy environment and are in compliance with the provisions of this Chapter.

Removals of native trees or plants that are not requested in conjunction with a land use application or development permit may be accomplished only under a permit issued by the Town of Apple Valley Planning Division, subject to the provisions of this Chapter.

The Building Official shall require a pre-construction inspection prior to approval of

development permits.

The duration of a plant or tree removal permit when issued in conjunction with a land use application and/or a development permit shall be coterminous with the duration of the associated application or permit, unless otherwise specified. The Town (i.e., Reviewing Authority) shall specify the expiration date for all other tree and/or plant removal permits."

SECTION 5 IMPACTS AND MITIGATION

This chapter provides survey results and analyzes the effects of the proposed Project on natural communities, special status species, and other protected biological resources in the Project. Wetlands and waters potentially subject to Clean Water Act jurisdiction, birds listed under the Federal Migratory Bird Treaty Act, birds listed under CA Fish and Game Code § 3503.5 and impacts to sensitive natural communities are also discussed.

The following analysis determines the potential direct, indirect and cumulative biological resource effects of the Project in and around the Project Area. Analysis of potential project-related impacts to biological resources is based on field site visits, review of aerial photographs, and a desktop review of records for special status species and habitats.

The environmental impact analysis includes Federal and State biological resource regulations. The FESA and the CESA formally list plant and animal species determined to be rare, threatened, endangered, or candidate species. They establish regulations for protecting these species and their habitats. Additional information on rare plants was resourced from the California Native Plant Society's Inventory of Rare and Endangered Plants of California.

Impacts are classified in CEQA Guidelines Appendix G. Environmental Checklist into four types:

- Potentially Significant Impact; cannot be mitigated to a level that is less than significant with Mitigation Incorporated
- Less Than Significant With Mitigation Incorporated
- Less Than Significant
- No Impact

"Significant effect" is defined by Section 15382 of the CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

A loss of, or disturbance to unique, rare, or threatened habitats, species or movement corridors, or conflict with local, state, or federal policies, would be considered significant because it could result in the reduction or elimination of a population or the habitat upon which it depends for survival and cannot be reduced to less than significant with mitigated incorporated.

The Project does provide suitable habitat for federal and state-listed species, as well as habitat for other special status species.

5.1 Habitats and Natural Communities of Special Concern

Habitats are of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special status plants or animals occurring on site. State and/or federal jurisdictional features are considered natural communities of special concern.

No natural communities of special concern were identified by the CNDDB during the records search as occurring within the Apple Valley North USGS 7.5-minute quad. The only natural

community of special concern identified within the Project is possible jurisdictional waters. The desktop review confirmed a single wash as part of the USFWS NWI dataset also verified present as part of the field surveys as shown on **Figures 3** and **4**. Waters of the U.S. and state qualify as natural communities of special concern, as they are regulated by state and federal resource agencies.

The Project does not contain federal designated critical habitat.

5.2 Special Status Plant Species

Special status plant species are of special concern based on (1) federal, state, or local law regulating their development; (2) limited distributions; and/or (3) the presence of habitat required by the special status plants occurring on site. Habitat associated with three special status species occurred within the Project in the form of the Creosote Bush Scrub habitat, based on the field survey and CNDDB, CNPS, and IPaC records search.

5.2.1 Project Impacts

The Project intends to impact the entire 80 acres of land for the purposes of industrial development which would remove all vegetation currently present.

5.2.2 Avoidance and Minimization Efforts

Conduct a rare plant survey to inventory all special status plants including those specified by the Town of Apple Valley municipal code.

5.2.3 Compensatory Mitigation

Per CDFW,

Western Joshua tree (Yucca brevifolia) became a candidate species under the California Endangered Species Act (CESA), effective October 9, 2020 (Office of Administrative Law notice number Z2020-0924-01 (PDF)(opens in new tab)). CESA prohibits the take and possession of any species, or any part or product of a species that is designated by the California Fish and Game Commission(opens in new tab) as an endangered, threatened, or candidate species. As a candidate species, western Joshua tree now has full protection under CESA and any take of the species (including removal of western Joshua tree or similar actions) will require authorization under CESA. The exceptions and permitting process under the California Desert Native Plants Act and the separate exceptions under the Native Plant Protection Act will not apply to western Joshua tree in any manner. For projects where "take" is incidental to carrying out an otherwise lawful activity, an Incidental Take Permit (ITP) may be obtained from the California Department of Fish and Wildlife (CDFW). CDFW also recommends you contact your city and county regarding any additional permits or approvals that they may require, because city and county permit processes may be separate from permits that are needed from CDFW.

A removal permit shall be required for the removal of any native tree or plant that is subject to the provisions of the Town Municipal Code Section 9.76. Disturbing, moving (transplanting or otherwise), removal or destruction of an existing Joshua Tree(s) shall be subject to the provisions of Section 9.76.040.

5.2.4 Cumulative Impacts

Development will be consistent with the Town's planning documents (i.e., Specific Plan EIR) and ordinances, and with the implemented avoidance and minimization measures, all impacts are anticipated to be reduced to less than significant with mitigation. There are no known cumulative impacts as existing adjacent land is vacant.

5.3 Special Status Wildlife Species

5.3.1 Project Impacts

Based on the current survey results and recommendations, Project impacts analysis will be further developed and refined based on the future findings.

5.3.2 Avoidance and Minimization Efforts

Based on the presence of habitat capable of supporting special status species, specifically

- Burrowing Owl
- Desert tortoise
- Mohave ground squirrel

Coordination with CDFW and USFWS is recommended as to the need to conduct focused protocol presence/absence surveys. Based on the results of the consultation and possible surveys avoidance and minimization efforts may be further developed, such as pre-construction surveys conducted within 30 days prior to initial ground disturbance.

5.3.3 Compensatory Mitigation

Coordination with CDFW and USFWS is recommended as to the need to conduct focused protocol presence/absence surveys. Based on the results of the consultation and possible surveys avoidance and minimization efforts may be further developed.

5.3.4 Cumulative Impacts

Development will be consistent with the Town's planning documents (i.e., Specific Plan EIR) and ordinances, and with the implemented avoidance and minimization measures, all impacts are anticipated to be reduced to less than significant with mitigation. There are no known cumulative impacts as existing adjacent land is vacant.

SECTION 6 MITIGATION MEASURES

The following mitigation measures are recommended to reduce any project impacts to less than significant levels.

6.1.1 BIO-1 Nesting Bird Surveys

Prior to vegetation removal or initial ground disturbance during the nesting bird season (February 1st through August 31st) a pre-construction nesting bird survey must be conducted by a Project biologist prior to the start of work. The nesting bird survey must include the Project area plus a 300-foot buffer. Within 2 weeks of the nesting bird survey, all areas surveyed by the biologist must be cleared by the contractor or a supplemental nesting bird survey is required. A minimum 300-foot no work buffer will be established around any active nests of a raptor species. A 100-foot no work buffer will be established around any active nests for other migratory birds. If an active nest is discovered during construction, the contractor must immediately stop work in the nesting area until the appropriate buffer is established. The contractor is prohibited from conducting work that could disturb the birds (as determined by a project biologist and in coordination with wildlife agencies) in the buffer area until a qualified biologist determines that the young have fledged. A reduced buffer can be established if determined appropriate by a project biologist and approved by CDFW.

6.1.2 BIO-2 Desert Tortoise Surveys

The project site is within the known range of the federally listed Mohave desert tortoise. Protocol desert tortoise surveys should be completed, and a report submitted to the appropriate agencies before the commencement of clearing and grading.

6.1.3 BIO-3 Burrowing Owl Surveys

The project site is within the known range of the state-listed Western burrowing owl. Protocol surveys should be completed, and a report submitted to the appropriate agencies before the commencement of clearing and grading.

6.1.4 BIO-4 Mohave Ground Squirrel

The project site is within the potential habitat of the Mohave ground squirrel. Appropriate agencies should be contacted to determine if there is a need for Mohave ground squirrel surveys (trapping).

6.1.5 BIO-5 Rare Plant Survey

The project site is within the potential habitat of various listed rare plants. A rare plant survey (s) should be completed at the appropriate blooming times (late winter/spring). Rare plant surveys

should be conducted, and a report should be submitted to the relevant agencies before the commencement of clearing and grading.

6.1.6 BIO-6 Jurisdictional Delineation

A jurisdictional delineation of the wash should be conducted to confirm federal and state jurisdiction if there is spatial overlap with the proposed project site plans.

SECTION 7 CONCLUSION

This biological report focused on a single parcel within Apple Valley, San Bernardino, California. Methods and results of both literature research and field surveys were discussed. While potential habitat exists, no listed species, except for two Joshua trees were observed. A single wash was observed within the southeast portion of the parcel. The wash footprint appears to overlap with elements in the site plan (please see **Figures 3** and **4**).

We recommend a jurisdictional delineation of the wash as there appears to be spatial overlap with the proposed project site plans. We also recommended other mitigation measures to determine the presence/absence of various listed species, including desert tortoise, burrowing owl, and rare plants. With the proposed avoidance and minimization measures detailed in Section 6, all project impacts are anticipated to be reduced to less than significant with mitigation.

SECTION 8 REFERENCES

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Photo 1. Joshua Tree #1 within the Project Area

Photo 2. Joshua Tree #2 within the Project Area.

Photo 3. Creosote Bush Scrub within the Project Area

Photo 4. Horned Lark within the Project Area.

Photo 5. Wash running through the southeastern portion of the parcel.

Common Name	Scientific Name
Plants	
Creosote bush	*Larrea tridentata*
Joshua tree	*Yucca brevifolia*
Prickly pear cactus	*Opuntia* sp.
Animals	
California whiptail	*Aspidoscelis tigris munda*
Cactus Wren	*Campylorhynchus brunneicapillus*
Horned Lark	*Eremophila alpestris actia*
Kangaroo rat sp.	*Dipodomys* sp.
White-tailed antelope squirrel	*Ammospermophilus leucurus*

APPENDIX C Potentially Occurring Special Status Biological Resources

Common Name	Scientific Name	Status		General Habitat Description	Habitat Present /Absent	Rationale
Plants						
Barrel cactus	*Ferocactus acanthodes*	FESA: CESA: CNPS: Town:	None None CBR Protected	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	HP	Creosote Bush Scrub is present throughout the project with the potential to support this species.
Creosote rings (ten feet or greater in diameter)	*Larrea tridentata*	FESA: CESA: CNPS: Town:	None None None Protected	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	HP	Creosote Bush Scrub is present throughout the project with the potential to support this particular formation.
Desert cymopterus	*Cymopterus deserticola*	FESA: CESA: CNPS: Town:	None None 1B.2 None	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	HP	Creosote Bush Scrub with the sandy washes present in the Project have the potential to support this species.
Joshua tree	*Yucca brevifolia*	FESA: CESA: CNPS: Town:	None Candidate CBR Protected	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	P	Two individual trees were observed within the Project.
Mesquites (All species of the genus Prosopis)	*Prosopis* sp.	FESA: CESA: CNPS: Town:	None None None Protected	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	HP	Creosote Bush Scrub with the sandy washes present in the Project have the potential to support this species.

APPENDIX C Potentially Occurring Special Status Biological Resources

Common Name	Scientific Name	Status		General Habitat Description	Habitat Present /Absent	Rationale
Mohave yucca	*Yucca schidigera*	FESA: CESA: CNPS: Town:	None None None Protected	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	HP	Creosote Bush Scrub is present throughout the project that has the potential to support this species.
Mojave monkeyflower	*Diplacus mohavensis*	FESA: CESA: CNPS: Town:	None None 1B.2 None	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	HP	Creosote Bush Scrub with the sandy washes present in the Project have the potential to support this species.
Our Lord's candle	*Hesperoyucca whipplei* (syn. *Yucca whipplei*)	FESA: CESA: CNPS: Town:	None None None Protected	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	HP	Creosote Bush Scrub with the sandy washes present in the Project have the potential to support this species.
Smoke tree	*Psorothamnus spinosus* (syn. *Dalea spinosa*)	FESA: CESA: CNPS: Town:	None None None Protected	Joshua Tree Woodland Mojavean Desert Scrub Creosote Bush Scrub	HP	Creosote Bush Scrub with the sandy washes present in the Project have the potential to support this species.

APPENDIX C Potentially Occurring Special Status Biological Resources

Common Name	Scientific Name	Status		General Habitat Description	Habitat Present /Absent	Rationale
Animals						
Burrowing Owl	*Athene cunicularia*	FESA: CESA: Other:	None None CDFW: SSC, USFWS: BCC	Per CDFW, "Open, dry grassland and desert habitats, and in the grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats."	HP	Habitat is present, capable of supporting this species, primarily foraging; however, there may also be opportunities to nest as well.
California Condor	*Gymnogyps californianus*	FESA: CESA: Other	Endangered Endangered CDFW: FP	Per USFWS, "Vast expanses of varying habitats for foraging, roosting, and nesting. Condors roost on large trees, snags, or rocky outcrops and cliffs."	A	There is negligible foraging habitat and no nesting habitat to support this species. Furthermore, the Project location is not located near existing known populations.
Crotch bumble bee	*Bombus crotchii*	FESA: CESA: Other:	None None None	Grasslands and shrublands requires a hotter and drier environment than other bumblebee species—food source including milkweeds, lupines, phacelias, sages, clarkias, poppies, and wild buckwheats.	HP	The Project contains habitat, including food sources that may support this species.
Desert tortoise	*Gopherus agassizii*	FESA: CESA: Other:	Threatened Threatened None	Per USFWS. "Mojave population of desert tortoise lives in a variety of habitats from sandy flats to rocky foothills, including alluvial fans, washes, and canyons."	HP	The Project contains a habitat capable of supporting this species, including arid desert land with washes.

APPENDIX C Potentially Occurring Special Status Biological Resources

Common Name	Scientific Name	Status		General Habitat Description	Habitat Present /Absent	Rationale
Golden Eagle	*Aquila chrysaetos*	FESA: CESA: Other:	None None CDFW: FP CDFW: WL	Typically found in open country, including deserts in the vicinity of hills, cliffs, and bluffs. Golden eagles are known to be sensitive to human activity and are known to avoid developed areas.	HP	The Project supports foraging habitat only, not nesting.
Horned Lark	*Eremophila alpestris actia*	FESA: CESA: Other	None None CDFW: WL	Per CDFW, "A common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent."	P	Habitat is present, capable of supporting this species, primarily foraging; however, there may also be opportunities to nest as well.
Le Conte's Thrasher	*Toxostoma lecontei*	FESA: CESA: Other:	None None CDFW: SSC	Per CDFW, "open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats; also occurs in Joshua tree habitat with scattered shrubs."	HP	Habitat can support both foraging and nesting in the form of open desert wash and scrub.
Loggerhead Shrike	*Lanius ludovicianus*	FESA: CESA: Other:	None None CDFW: SSC	Open habitats, including desert riparian, and Joshua tree habitats, with scattered shrubs, trees, posts, fences, utility lines, or other perches.	HP	Habitat is present and able to support both foraging and nesting in the form of open desert wash and scrub.
Monarch butterfly	*Danaus plexippus*	FESA: CESA: Other	Candidate None None	Per USFWS, "Milkweed and flowering plants are needed for monarch habitat. Adult monarchs feed on the nectar of many flowers during	A	The Project lacks the presence of any milkweed, thus precluding the species from utilizing the existing

Common Name	Scientific Name	Status		General Habitat Description	Habitat Present /Absent	Rationale
				breeding and migration, but they can only lay eggs on milkweed plants."		habitat.
Mohave ground squirrel	*Xerospermophilus mohavensis*	FESA: CESA: Other:	None Endangered None	Per CDFW, "Restricted to the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo counties. This species is rare throughout its range; populations in the western Antelope Valley (west of SR-14) appear to be extirpated. Optimal habitats are open desert scrub, alkali desert scrub, Joshua tree, and annual grasslands. Has been found from 505 - 1,525 m. (1,800 - 5,000 ft.)elevation."	HP	Habitat is present and associated with this species. Based on current range maps, the habitat is located near the southeastern end of the range and may be less likely to support the species.
Pallid San Diego pocket mouse	*Chaetodipus fallax pallidus*	FESA: CESA: Other:	None None CDFW: SSC	Per San Diego Management & Monitoring Program, the habitat consists of sandy herbaceous areas, usually associated with rocks or coarse gravel in southwestern California. Occurs mainly in arid coastal and desert borders. Habitats tend to be stony soils above sandy desert fans and rocky areas within shrub	HP	While habitat is associated with the species is in the form of desert wash and scrub, the statistical model outputs for the range of the species show it outside of the Project per Data Basin provided by The Conservation Biology Institute (CBI).

APPENDIX C Potentially Occurring Special Status Biological Resources

Common Name	Scientific Name	Status		General Habitat Description	Habitat Present /Absent	Rationale
Prairie Falcon	*Falco mexicanus*	FESA: CESA: Other:	None None CDFW: WL	Per CDFW, "Annual grasslands to alpine meadows, but associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub areas. Usually, nests in a scrape on a sheltered ledge of a cliff overlooking a large, open area. Sometimes nests on old raven or eagle stick nest on cliffs, bluffs, or rock outcrops."	HP	While observed flying over in the vicinity of the Project Area, the habitat present only supports foraging, not nesting.
Swainson's Hawk	*Buteo swainsoni*	FESA: CESA: Other:	None Threatened None	Per CDFW, "Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands, suitable grain, alfalfa fields, or livestock pastures."	A	There is a lack of foraging and nesting habitat to support this species within and immediately adjacent to the Project.
Western Yellow-billed Cuckoo	*Coccyzus americanus occidentalis*	FESA: CESA: Other:	Threatened Endangered None	Per USFWS - "Wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland and dense thickets along streams and marshes."	A	There is a lack of foraging and nesting habitats to support this species.