

# MEAD VALLEY COMMERCE CENTER

## RIVERSIDE COUNTY, CALIFORNIA

STEELE PEAK USGS 7.5-MINUTE TOPOGRAPHIC QUADRANGLE

SECTION 16, TOWNSHIP 5 SOUTH, RANGE 3 WEST

NORTHERN PARCELS APNS: 317-080-003, -004, -005, -006, -007, -008, -013, -014, -019, -020, -021, -022,  
-023, -027, -028, AND -029.

SOUTHERN PARCELS APNS: 317-090-002, 003, -004, -005, -006, -007 AND -008.

### Delineation of State and Federal Jurisdictional Waters

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July 2024

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RIVERSIDE COUNTY, CALIFORNIA

## Delineation of State and Federal Jurisdictional Waters

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The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.



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Travis J. McGill  
Biologist/Director



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Thomas J. McGill, Ph.D.  
Managing Director

July 2024

# Executive Summary

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ELMT Consulting (ELMT) has prepared this Delineation of State and Federal Jurisdictional Waters Report for the proposed Mead Valley Commerce Center located in unincorporated Riverside County, California. The jurisdictional delineation documents the regulatory authority of the U.S. Army Corps of Engineers (Corps), the Regional Water Quality Control Board (Regional Board), and the California Department of Fish and Wildlife (CDFW) pursuant to Section 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act, and Sections 1600 *et. seq.* of the California Fish and Game Code.<sup>1</sup>

Two ephemeral drainage features, Drainage A and associated Tributary A-1, were observed on-site during the field delineation. Both Drainage A and Tributary A-1 are located in the southern portion of the project site, proposed for development of a community park, with Drainage A generally flowing eastward in the southern limits and Tributary A-1 generally flowing southwest from an unnamed access road to its confluence with Drainage A. After flowing off-site, Drainage A flows east, eventually terminating at a Metropolitan Water District facility approximately 0.25 miles to the east.

The onsite ephemeral drainage features are not relatively permanent, standing, or a continuously flowing bodies of water and, therefore, will not qualify as waters of the United States under the regulatory authority of the Corps (*Sackett v. EPA* (2022) 143 S. Ct. 1322, 1336). However, the onsite drainage feature will qualify as waters of the State and fall under the regulatory authority of the Regional Board and CDFW. Table ES-1 identifies the on-site jurisdiction including the total acreage of jurisdiction and anticipated impacts for each regulatory agency within the boundaries of the project site.

**Table ES-1: Jurisdictional Area and Impact Analysis**

Jurisdictional Feature	Regional Board Jurisdiction		CDFW Jurisdictional Streambed	
	On-Site Jurisdiction Acreage (Linear Feet)	Jurisdictional Impacts Acreage (Linear Feet)	On-Site Jurisdiction Acreage (Linear Feet)	Jurisdictional Impacts Acreage (Linear Feet)
Drainage A	0.057 (877)	0.057 (877)	0.27 (877)	0.27 (877)
Tributary A-1	0.003 (108)	0.003 (108)	0.003 (108)	0.003 (108)
<b>TOTAL</b>	<b>0.06 (985)</b>	<b>0.06 (985)</b>	<b>0.27 (985)</b>	<b>0.27 (985)</b>

The project applicant will likely be required to obtain the following regulatory approvals prior to impacts occurring within the identified jurisdictional areas: Corps Approved Jurisdictional Determination or Waiver; Regional Board CWA Section Report of Waste Discharge; and CDFW Section 1602 Streambed

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<sup>1</sup> The field surveys for this jurisdictional delineation were conducted on May, 19, 2023 and February 16, 2024 pursuant to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps 2008); and *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (Corps 2017); *The MESA Field Guide: Mapping Episodic Stream Activity* (CDFW 2014); and a *Review of Stream Processes and Forms in Dryland Watersheds* (CDFW 2010).

Alteration Agreement (SAA). Refer to Sections 1-7 for a detailed analysis of site conditions and regulatory requirements.

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# Section 1 Introduction

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This jurisdictional delineation has been prepared for the Mead Valley Commerce Center and off-site street improvement areas site in order to document the potential jurisdictional authority of the U.S. Army Corps of Engineers (Corps), the Regional Water Quality Control Board (Regional Board), and the California Department of Fish and Wildlife (CDFW) pursuant to Section 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act and Sections 1600 *et seq.* of the California Fish and Game Code. The analysis presented in this report is supported by field surveys and verification of site conditions conducted on February 16, 2024.

A jurisdictional delineation report was previously prepared for the project by Glenn Lukos Associates, Inc. (GLA) in 2023. The findings and determinations presented in the GLA report were summarized and included herein.

This report explains the methodology undertaken by ELMT Consulting (ELMT) to define the regulatory authority of the aforementioned regulatory agencies and documents the findings made by ELMT. This report documents the jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies.

## 1.1 PROJECT LOCATION

The project site and off-site street improvement areas are generally located south and west and south of Interstate 215, east of Lake Matthews, and north of State Route 74 in unincorporated Riverside County, California (Exhibit 1, *Regional Vicinity*). The project site and off-site street improvement areas are depicted on the Steele Peak quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map within Sections 11 through 14 of Township 4 South, Range 4 West (Exhibit 2, *Site Vicinity*). Specifically, the Warehouse area of the project site is bounded to the north by Cajalco Road, to the west by Decker Road, and to the east by Seaton Avenue within Assessor Parcel Numbers: 317-080-003, -004, -005, -006, -007, -008, -013, -014, -019, -020, -021, -022, -023, -027, -028, and -029.

The Park area is in the southwestern portion of the project site and is separated from the Warehouse development area at its northern boundary by a Metropolitan Water District (MWD) owned parcel. The Park area is bounded to the east, west, and south by undeveloped, vacant and residential land within 317-090-002, -003, -004, -005, -006, -007, and -008. Off-site street improvement areas associated with the project include areas along existing portions of Cajalco Road, Seaton Avenue, Rider Street, and Decker Road, and a new terminus for Decker Road in the southwest portion of the site (Exhibit 3, *Project Site*).

The Park area is bounded to the east, west, and south by undeveloped, vacant and residential land within 317-090-003, -004, -005, -006, and -007. Off-site street improvement areas associated with the project include areas along existing portions of Cajalco Road, Seaton Avenue, Rider Street, and Decker Road, and a new terminus for Decker Road in the southwest portion of the site (Exhibit 3, *Project Site*).

A full list of all the APNs within the four project components areas (i.e., Warehouse Facility, Public Park, Street Improvements, and Stream Impact Area) are provided below:

317050024	317050041	317080007	317080023	317090006	317150021
317050025	317050045	317080008	317080027	317090007	317150033
317050028	317050052	317080013	317080028	317090008	317150041
317050029	317050053	317080014	317080029	317090009	317150051
317050034	317080002	317080016	317080030	317090023	317150052
317050035	317080003	317080019	317090002	317100029	317150053
317050038	317080004	317080020	317090003	317140041	317150054
317050039	317080005	317080021	317090004	317140055	317150060
317050040	317080006	317080022	317090005	317150002	317180008

## 1.2 PROJECT DESCRIPTION

For this report, the term Project site and off-site street improvement areas are defined as that area proposed for direct impact by the proposed Project, including on-site development, and off-site (road improvement) areas (refer to Appendix B, *Site Plan*). Additionally, the southwest corner of the park site, where the drainage features flow onsite, are assumed to be impacted. The proposed project does not propose any temporary impacts. Staging for the project will occur onsite.

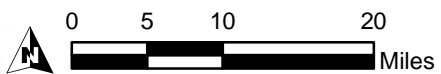
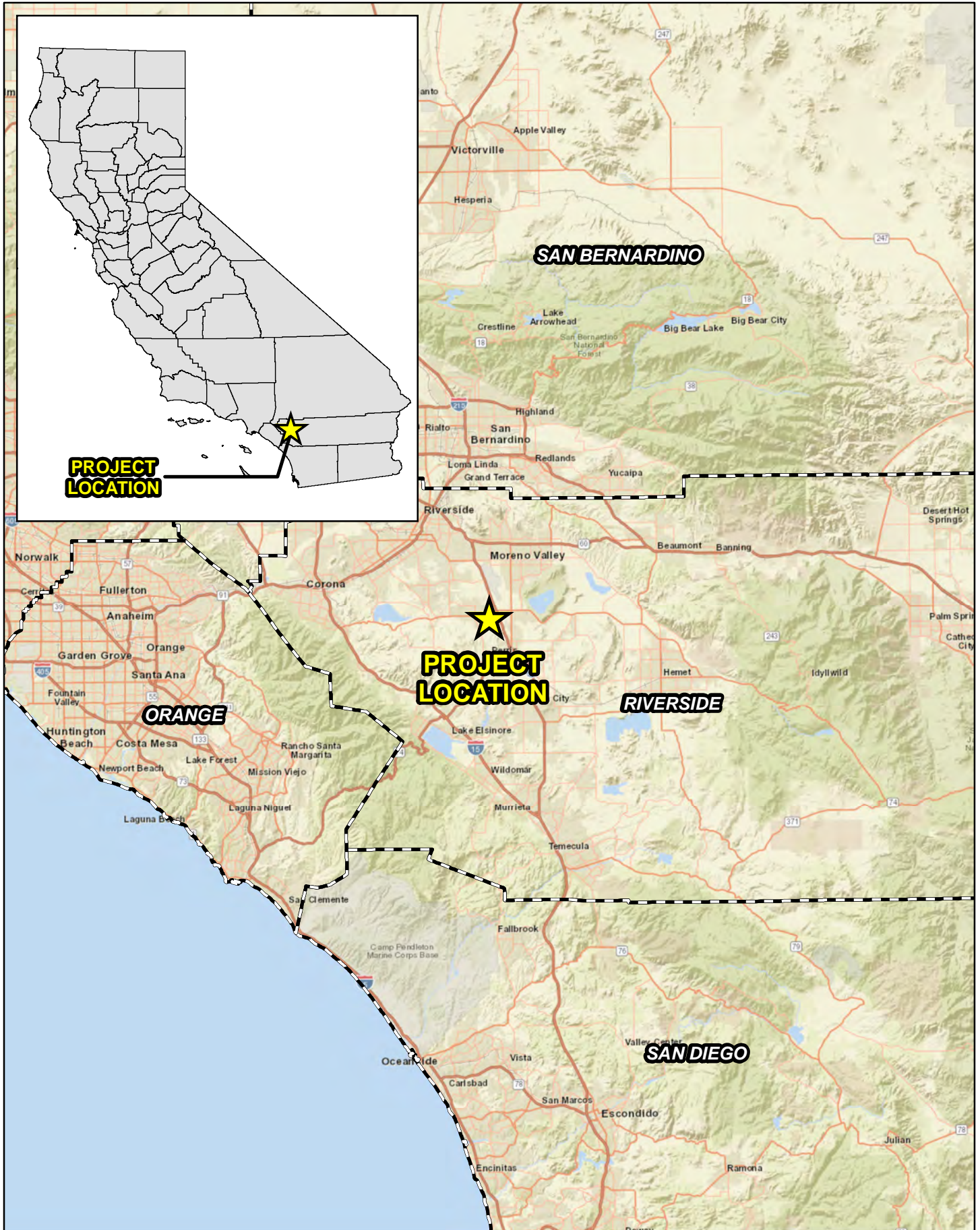
The Project consists of the following components:

- A warehouse facility ( $\pm 50$  acres) located south of Cajalco Road, west of Seaton Avenue and east of Decker Road.
- A public park ( $\pm 13.6$  acres) located south of a Metropolitan Water District (MWD) fee-owned parcel at the future terminus of Decker Road.
- Off-site street improvements ( $\pm 21.8$  acres) to portions of Cajalco Road, Seaton Avenue, and Decker Road.
- Within the public park, an onsite stream area has been depicted ( $\pm 1.3$  acres). The stream area consists of approximately 0.27 acre of riparian/riverine resources, and 1.03 acre of upland buffer. Refer to Attachment B, *Site Plan*.
- Fuel modification zones associated with the proposed project include a 100-foot Fuel Modification Buffer and On-site Fuel Modification Equivalent for the northern portion of the  $\pm$ site and a 100-foot Fuel Modification Buffer, On-site Fuel Modification Equivalent, and Off-site Fuel Modification Equivalent for the southern portion of the project site. Refer to Appendix E, *Fuel Modification Plan*.

**Table 1: Summary of Project Components**

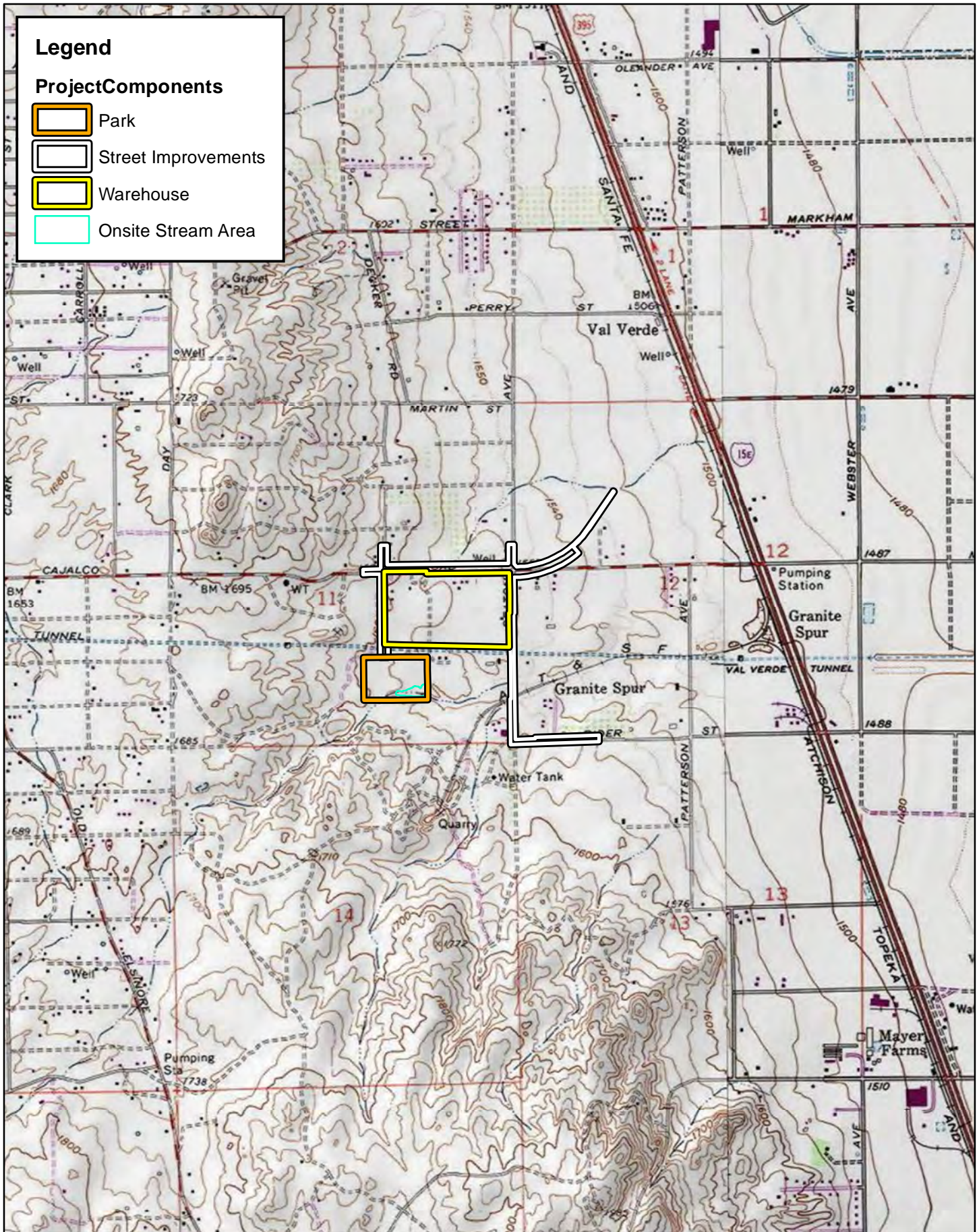
<b>Project Component</b>	<b>Area (Acres)</b>
Warehouse Facility	$\pm 50$
Public Park	$\pm 13.6$
Street Improvements	$\pm 21.8$
Onsite Stream Area	$\pm 1.3$
<b>Total</b>	<b>86.7</b>

Facilities fronting the proposed building will be maintained by Riverside County Transportation. Larger facilities (greater than 36") such as the Storm Drain within the project park boundary will require maintenance by Riverside County Flood Control. The proposed three-12'x12' RCB culvert and headwalls will require maintenance to maintain flow progression. This maintenance will be conducted by either Riverside County Flood Control or Riverside County Transportation via one or more access roads to the facilities.



Source: World Street Map, Riverside County

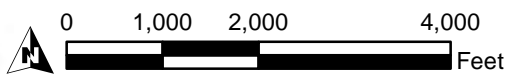
CAJALCO COMMERCE CENTER  
**Regional Vicinity**



**Legend**

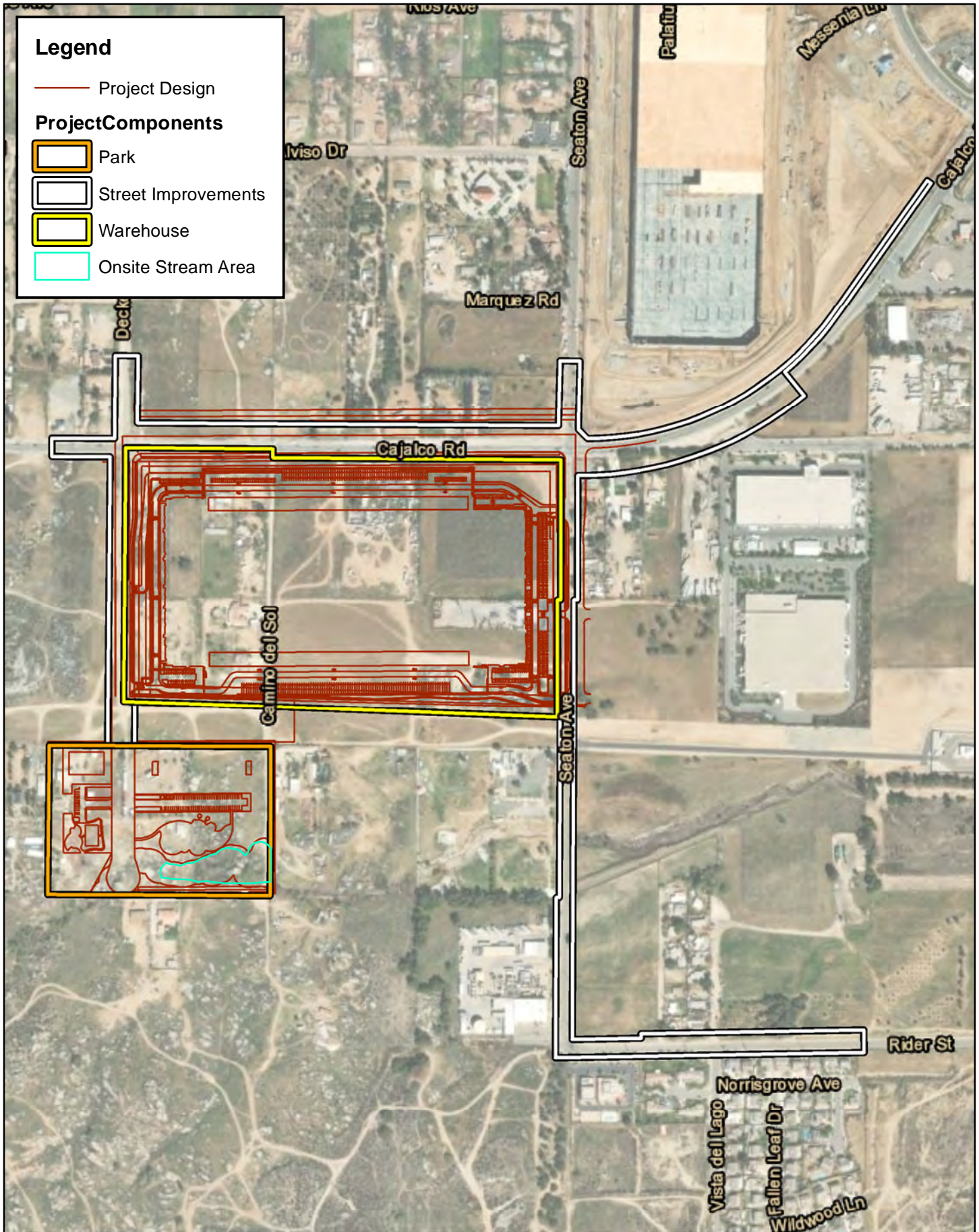
**Project Components**

-  Park
-  Street Improvements
-  Warehouse
-  Onsite Stream Area



MEAD VALLEY COMMERCE CENTER  
**Site Vicinity**

Source: USA Topographic Map, Riverside County



**Legend**

— Project Design

**ProjectComponents**

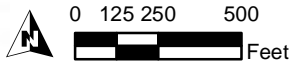
▭ Park

▭ Street Improvements

▭ Warehouse

▭ Onsite Stream Area

CAJALCO COMMERCE CENTER  
**Project Site**



Source: ESRI Aerial Imagery, Riverside County

## Section 2 Regulations

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There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Division regulates activities pursuant to Section 404 of the CWA, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research, and Sanctuaries Act. The Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates activities under Sections 1600 *et seq.* of the California Fish and Game Code.

### 2.1 U.S. ARMY CORPS OF ENGINEERS

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the discharge of dredged or fill material into waters of the United States, including wetlands, pursuant to Section 404 of the CWA. The Corps and EPA define “fill material” to include any “material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States.” Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and “materials used to create any structure or infrastructure in the waters of the United States.” The terms *waters of the United States* and *wetlands* are defined under CWA Regulations 33 Code of Federal Regulations (CFR) §328.3 (a) through (b).

### 2.2 REGIONAL WATER QUALITY CONTROL BOARD

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits and helps ensure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Boards that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board (SWRCB) assumes this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

Additionally, the California Porter-Cologne Water Quality Control Act gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Water Quality Control Act has become an important tool post *Solid Waste Agency of Northern Cook County vs. United States Corps of Engineers*<sup>2</sup> (SWANCC) and *Rapanos v. United States*<sup>3</sup> (Rapanos) court cases with respect to the State’s regulatory authority over isolated and insignificant waters. Generally, any applicant proposing to discharge waste into a water body must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although “waste” is partially defined as any

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<sup>2</sup> Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, 531 U.S. 159 (2001)

<sup>3</sup> Rapanos v. United States, 547 U.S. 715 (2006)

waste substance associated with human habitation, the Regional Board also interprets this to include discharge of dredged and fill material into water bodies.

Under the State Water Resources Control Board State Wetland Definition, an area is a wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

### **2.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

Sections 1600 *et seq.* of the California Fish and Game Code establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not substantially adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided. Pursuant to Section 1602 of the California Fish and Game Code, a notification must be submitted to the CDFW for any activity that will divert or obstruct the natural flow or alter the bed, channel, or bank (which may include associated biological resources) of a river or stream or use material from a streambed. One CDFW guidance document, although not a formally adopted rule or policy, requires notification for activities taking place within rivers or streams that flow perennially or episodically and that are defined by the area in which surface water currently flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical and biological indicators. If the project will not “substantially adversely affect an existing fish or wildlife resource,” following notification to CDFW, the project may commence without an agreement with CDFW. (Fish & G. Code, § 1602(a)(4)(A)(i).)

## Section 3 Methodology

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The analysis presented in this report is supported by field surveys and verification of site conditions conducted on May 19, 2023 and February 16, 2024. ELMT conducted a field delineation to determine the jurisdictional limits of the “waters of the United States”, “waters of the State” and jurisdictional streambed (including potential wetlands), located within the boundaries of the survey area. While in the field, jurisdictional features were recorded on an aerial base map at a scale of 1" = 50' using topographic contours and visible landmarks as guidelines. Data points were obtained with a Garmin Map62 Global Positioning System to record and identify specific widths for ordinary high water mark (OHWM) indicators and the locations of photographs, soil pits, and other pertinent jurisdictional features, if present. This data was then transferred as a .shp file and added to the Project's jurisdictional exhibits. The jurisdictional exhibits were prepared using ESRI ArcInfo Version 10 software.

### 3.1 WATERS OF THE UNITED STATES

In the absence of adjacent wetlands, the limits of the Corps jurisdiction in non-tidal waters extend to the OHWM, which is defined as “. . . *that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*”<sup>4</sup> Indicators of an OHWM are defined in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Corps 2008). In addition to characteristics listed above, wracking; vegetation matted down, bent, or absent; sediment sorting; leaf litter disturbed or washed away; scour; deposition; multiple observed flow events; bed and banks; water staining; and/or change in plant community.

In accordance with the Revised Definition of “Waters of the United States”; Conforming (September 8, 2023), “waters of the United States” are defined as follows:

- (a) *Waters of the United States* means:
- (1) Waters which are:
    - (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
    - (ii) The territorial seas; or
    - (iii) Interstate waters;
  - (2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
  - (3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
  - (4) Wetlands adjacent to the following waters:
    - (i) Waters identified in paragraph (a)(1) of this section; or

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<sup>4</sup> CWA regulations 33 CFR §328.3(e).

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- (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
  - (5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section
  - (b) The following are not “waters of the United States” even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:
    - (1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;
    - (2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;
    - (3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
    - (4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
    - (5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
    - (6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
    - (7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and
    - (8) Swales and erosional features (*e.g.*, gullies, small washes) characterized by low volume, infrequent, or short duration flow.
  - (c) In this section, the following definitions apply:
    - (1) **Wetlands** means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
    - (2) **Adjacent** means having a continuous surface connection
    - (3) **High tide line** means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

- (4) **Ordinary high water mark** means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
- (5) **Tidal waters** means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.

Pursuant to the Corps Wetland Delineation Manual (Corps 1987), the identification of wetlands is based on a three-parameter approach involving indicators of hydrophytic vegetation, hydric soils, and wetland hydrology. In order to qualify as a wetland, a feature must exhibit at least minimal characteristics within each of these three parameters. It should also be noted that both the Regional Board and CDFW follow the methods utilized by the Corps to identify wetlands. For this Project, Corps jurisdictional wetlands are delineated using the methods outlined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps 2008).

## **3.2 WATERS OF THE STATE**

### **3.2.1 REGIONAL WATER QUALITY CONTROL BOARD**

The California *Porter-Cologne Water Quality Control Act* gives the Regional Board very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Regional Board shares the Corps' methodology for delineating the limits of jurisdiction based on the identification of OHWM indicators and utilizing the three parameter approach for wetlands. The Regional Board shares the Corps' jurisdictional methodology, unless SWANCC or Rapanos conditions are present. In the latter case, the Regional Board considers such drainage features to be jurisdictional waters of the State.

### **3.2.2 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

Sections 1600 *et seq.* of the California Fish and Game Code applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. Generally, the CDFW's jurisdictional limit is not defined by a specific flow event, nor by the presence of OHWM indicators or the path of surface water as this path might vary seasonally. Instead, CDFW's jurisdictional limit is based on the topography or elevation of land that confines surface water to a definite course when the surface water rises to its highest point. Further, the CDFW's jurisdictional limit extends to include any habitat (e.g. riparian), including wetlands and vernal pools, supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. For this project location, CDFW jurisdictional limits were delineated using the methods outlined in the *MESA Field Guide* (Brady, III and Vyverberg 2013) and *A Review of Stream Processes and Forms in Dryland Watersheds* (Vyverberg 2010), which were developed to provide guidance on the methods utilized to describe and delineate episodic streams within the inland deserts region of southern California.

## Section 4 Literature Review

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ELMT conducted a thorough review of relevant literature and materials to preliminarily identify areas that may fall under the jurisdiction of the regulatory agencies. A summary of materials utilized during ELMT's literature review is provided below and in Appendix B, *Documentation*. In addition, refer to Section 8 for a complete list of references used throughout the course of this delineation.

### 4.1 WATERSHED REVIEW

The project site and off-site street improvement areas are located within the San Jacinto River Watershed (Hydrologic Unit Code 18070202), which encompasses approximately 770 square miles and extends from the San Jacinto Mountains in the north and east to Lake Elsinore in the west. The majority of the watershed falls within Riverside County; however, the western boundary extends into a small undeveloped portion of Orange County. Elevations range from less than 1,250 feet above mean sea level at Lake Elsinore to approximately 1,400 to 1,700 feet on the valley floor to 10,834 feet at Mount San Jacinto in the San Jacinto Mountains. The Box Springs Mountains are located in the northwest, the San Jacinto Mountains in the north and east, and the Santa Ana Mountains in the southwest. Generally, the watershed can be divided into three distinct geomorphic regions: the San Jacinto Mountain Block, the Perris Block, and the Elsinore Trough. The San Jacinto Mountain Block includes granitic mountains characterized by shallow and stony soils. The Perris Block consists of relatively stable crystalline rock covered in deep alluvium derived from the San Jacinto Mountains. Southwest of the Perris Block is the Elsinore Trough, which is bounded on three sides by faults and the Elsinore Mountains.

The San Jacinto River, Mystic Lake, Perris Valley Storm Drainage, Salt Creek, Perris Reservoir, Canyon Lake, and Lake Elsinore are the dominant hydrologic features within the San Jacinto River Watershed. The headwaters to the San Jacinto River exhibit perennial flows while the valley reaches are characterized by intermittent flows. During significant storm events, periods of intense rainfall result in rapid increases in stream flow throughout the steep, mountainous portions of the watershed. Runoff from the upper reaches of the San Jacinto River generally flows towards the northwest and is eventually directed to Mystic Lake where flows are impounded during average/low flow years. Mystic Lake is relatively shallow and has a large surface area resulting in increased losses to infiltration, groundwater recharge, and evaporation. The storage capacity of Mystic Lake is only expected to be exceeded during significant storm events, resulting in the flows being returned to the San Jacinto River.

Downstream of Mystic Lake, the lower reaches of the San Jacinto River flow through Railroad Canyon before draining into Canyon Lake. Canyon Lake was created through the construction of the Railroad Canyon Dam and collects runoff from as far as Moreno Valley, San Jacinto, Hemet, and Perris. It is estimated that more than 90 percent of the San Jacinto River Watershed drains to Canyon Lake. In addition to the San Jacinto River, Salt Creek is one of the main tributaries to Canyon Lake. The headwaters of Salt Creek are located in the City of Hemet and flows are primarily the result of surface water runoff from surrounding urban areas. Lake Elsinore is approximately 3 miles downstream of Canyon Lake at the lowest elevation of the San Jacinto River Watershed. Surface flow from the San Jacinto River Watershed reaches Lake Elsinore only through the direct release, overflow, or seepage from the Canyon Lake Dam. Lake

Elsinore acts as a natural sump for the San Jacinto River Watershed; however, in rare situations the lake has overflowed into Temescal Creek, which ultimately drains to the Santa Ana River.

The project site and off-site street improvement areas are occurs in the northwest portion of the San Jacinto Watershed near the western boundary. Upstream flows entering the project site originate in the hills to the south and southwest and are conveyed eastward after leaving site boundaries. Downstream flows are conveyed eastward by a series of natural and manmade ephemeral drainages and culverts and are directed below ground into the local storm drain system via a series of inlets and culverts.

## **4.2 LOCAL CLIMATE**

Western Riverside County features a somewhat cooler version of a Mediterranean climate, or semi-arid climate, with warm, sunny, dry summers and cool, rainy, mild winters. Relative to other areas in Southern California, winters are colder chilly to cold morning temperatures with frost common. Climatological data obtained for the nearby City of Riverside indicates the annual precipitation averages 11.11 inches per year. Almost all of the precipitation in the form of rain occurs in the months between December and April, with hardly any occurring between the months of May and September. The wettest months are January and February, with monthly average totals precipitation of 2.24 and 3.29 inches, respectively, and the driest months are June and July, both with monthly average total precipitation of 0.04 inches. The average maximum and minimum temperatures are 86- and 46-degrees Fahrenheit (°F), respectively, with July and August (monthly average high 100°F) being the hottest months and December and January (monthly average lows 34 and 35°F) being the coldest. The temperature during the site visit was in the high-80s°F with moderately (>50%) cloudy skies and calm winds.

## **4.3 USGS TOPOGRAPHIC QUADRANGLE**

The USGS 7.5 Minute Series Topographic Quadrangle maps show geological formations and their characteristics, describing the physical setting of an area through contour lines and major surface features including lakes, rivers, streams, buildings, landmarks, and other factors that may fall under an agency's jurisdiction. Additionally, the maps depict topography through color and contour lines, which are helpful in determining elevations and latitude and longitude within the project site.

The project site and off-site street improvement areas are located within the Steele Peak quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series in within Section 11 of Township 4 South, Range 4 West. According to the topographic map, the northern portion consists almost entirely of vacant/undeveloped land with a north-south oriented road in the middle portion and several wells in the northern portion, and the southern portion consists of vacant/undeveloped land with a blue line stream entering the southwest corner and exiting the southeast corner. On-site elevation ranges from approximately 1,550 to 1,600 feet above mean sea level and generally slopes from southwest to northeast.

## **4.4 AERIAL PHOTOGRAPHS**

Prior to conducting the field delineation, ELMT reviewed current and historical aerial photographs. Aerial photographs can be useful during the delineation process, as they often indicate the presence of drainage

features and riverine habitat within the boundaries of the project site and off-site street improvement areas are, if any.

At present, the northern portion of the site consists of previously disturbed/developed areas transected by moderately maintained dirt roads. Occupied parcels support a mechanical equipment yard, a tenant-occupied recreational vehicle (RV) parking lot, and several residential homes. The southern portion supports a residential development with livestock infrastructure in the northwest portion and mostly undeveloped, vacant land including rocky outcrops and disturbed sage scrub in the remainder. The majority of the project site supports developed/disturbed land and has been subject to a variety of anthropogenic disturbances associated with current development, historic agricultural activities, routine weed abatement, and illegal dumping. Historic aerials show these activities have been ongoing since at least 1959. Refer to Appendix A, *Site Photographs*, for representative site photographs. The majority of the project site has undergone minimal changes since 2005.

Prior to conducting the field investigation, aerial photography was reviewed to document existing site conditions and changes to the project site and surrounding area.

- 1959: The northern portion supports active agricultural fields and two residential homes. The southern portion supports primarily undeveloped, vacant land supporting natural plant communities. The site is surrounded by additional agricultural plots as well as undeveloped, vacant land to the south and west. Cajalco Road and Seaton Avenue are present but unpaved.
- 1967: Additional development is present in the northern portion. The southern portion of the site has been disturbed in association with surrounding land uses and modifications.
- 1959-1978: Cajalco Road to the north and Seaton Avenue to the east are paved. New developments are present to the north and east.
- 1978-1994: Additional disturbance to the site and surrounding land is present, including multiple unpaved roads.
- 1994-2005: Additional scattered developments are present on-site and off-site to the north and east. The northwest portion of the southern portion has been graded.
- 2005-Present: No major changes.

The disturbances outlined above have disturbed, if not eliminated, the natural plant communities that historically occurred on the project site and off-site street improvement areas. As a result, only disturbed native plant communities occur on-site, and only disturbed native plant communities will be impacted from implementation of the proposed project. Refer to Appendix B, *Site Photographs*, for representative site photographs of the project site.

## 4.5 SOILS

Soils within and adjacent to the project site and off-site street improvement areas were researched prior to the field delineation using the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Custom Soil Resource Report for Western Riverside Area, California. The NRCS furnishes soil maps and interpretations originally needed in providing technical assistance to farmers and ranchers; in guiding other decisions about soil selection, use, and management; and in planning, research, and disseminating the results of the research. In addition, soil surveys are utilized to obtain soil information with respect to potential wetland environments and jurisdictional areas (i.e., soil characteristics, drainage, and color).

According to the Custom Soil Resource Report, the project site and off-site street improvement areas are underlain by the following soil units:

- Arlington fine sandy loam (deep, 2 to 8 percent slopes)  
The Arlington series consists of mildly alkaline soils with weakly cemented duripans. These soils are well-draining and formed on alluvial fans and terraces.
- Cieneba rocky sandy loam (8 to 15 and 15 to 50 percent slopes, eroded)  
The Cieneba series consists of shallow and very shallow, somewhat excessively drained soils formed from weathered granite.
- Fallbrook sandy loam (shallow, 5 to 8 and 8 to 15 percent slopes, eroded)  
The Fallbrook series consists of deep, well-drained soils formed from material weathered from granite.
- Hanford coarse sandy loam (2 to 8 percent slopes)  
The Hanford series consists of very deep, well-drained soils formed from moderately coarse textured alluvium, predominantly formed from granite.
- Monserate sandy loam (0 to 5 and 5 to 8 and 8 to 15 percent slopes, eroded)  
The Monserate series consists of moderately well to well-drained soils with slow to rapid runoff. This series is formed in alluvium derived predominantly from granite.
- Ramona sandy loam (2 to 5 percent slopes, eroded, and 8 to 15 percent slopes, severely eroded)  
The Ramona series consists of well-draining soils with slow to rapid runoff and moderately slow permeability. This series is formed in alluvium derived predominantly from granite.
- Vista coarse sandy loam (2 to 8 and 8 to 15 percent slopes, eroded)  
The Vista series consists of moderately deep, well-drained soils formed in material from decomposed granite.
- Vista rocky coarse sandy loam (2 to 35 percent slopes, eroded)  
See above.

#### 4.6 HYDRIC SOILS LIST OF CALIFORNIA

ELMT reviewed the USDA NRCS Hydric Soils List of California in an effort to verify whether on-site soils are considered to be hydric<sup>5</sup>. It should be noted that lists of hydric soils along with soil survey maps provide off-site ancillary tools to assist in wetland determinations, but they are not a substitute for field investigations. The presence of hydric soils is initially investigated by comparing the mapped soil series for the site to the County list of hydric soils. According to the hydric soils list, none of the soils mapped as underlying the project site and off-site street improvement areas are mapped as hydric in Western Riverside Area, California.

#### 4.7 NATIONAL WETLANDS INVENTORY

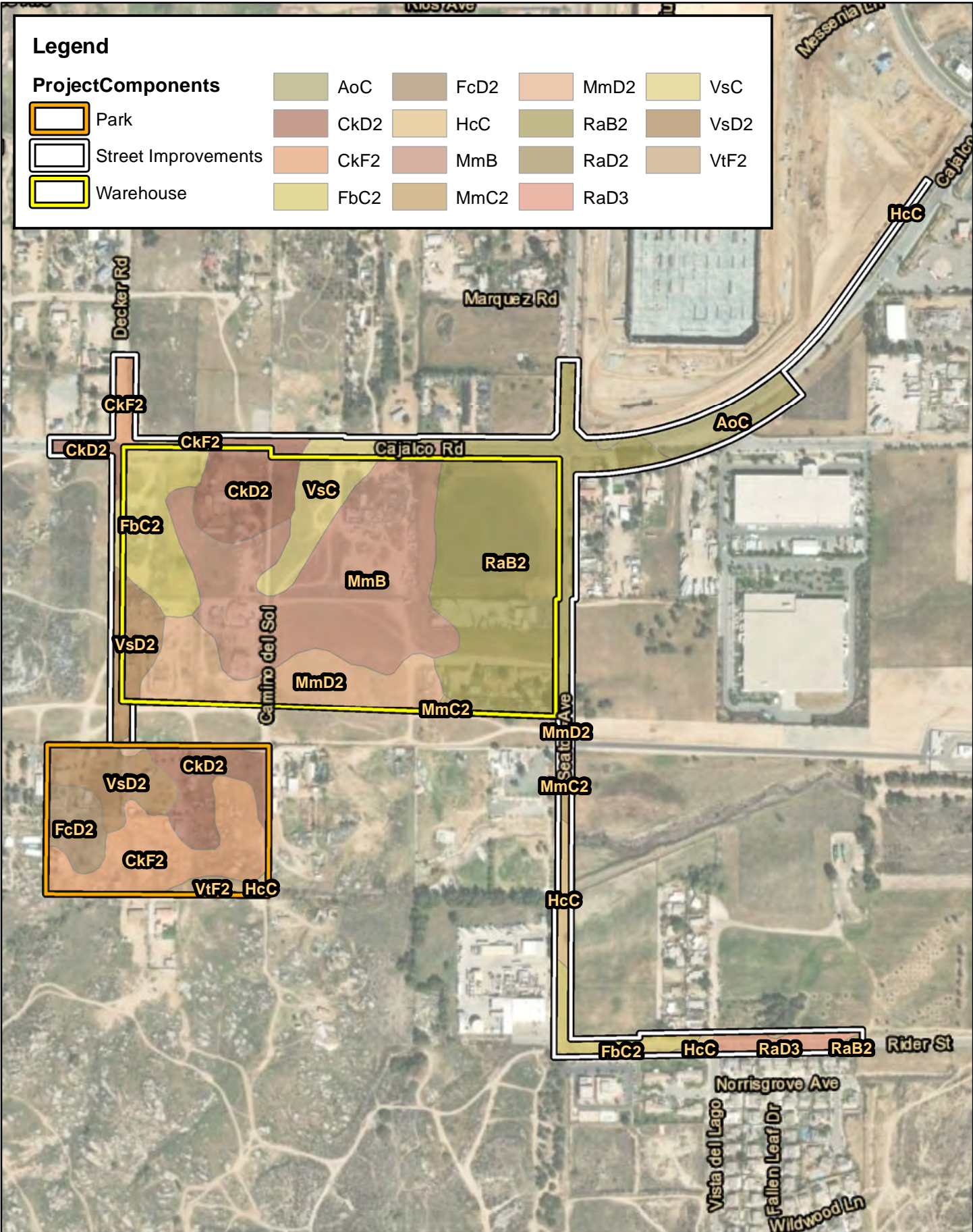
ELMT reviewed the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory maps. The NWI map depicts one (1) riverine resource flowing generally west to east in the southern portion of the of the project site. This feature was interpreted using 1:80,000 scale, black and white imagery from 1974. The feature is labeled R4SBA, indicating Riverine System (R), Subsystem Intermittent (I), Class Streambed (SB), and Water Regime Temporarily Flooded (A). Refer to Appendix B, *Documentation*.

#### 4.8 FLOOD ZONE

The Federal Emergency Management Act (FEMA) website was searched for flood data for the project site. Based on Flood Insurance Rate Map No. 06065C1410G the project site and off-site street improvement areas are located within Zone X – Area of Minimal Flood Hazard.

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<sup>5</sup> A hydric soil is 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.



Source: ESRI Aerial Imagery, Riverside County

CAJALCO COMMERCE CENTER  
**Soils**

## Section 5 Site Conditions

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ELMT biologist Megan E. Peukert conducted a field delineation to verify existing site conditions and document the extent of potential jurisdictional areas within the boundaries of the project site and off-site street improvement areas. ELMT field staff encountered no limitations during the field delineation.

### 5.1 ON-SITE FEATURES

ELMT carefully assessed the site and off-site street improvement areas for depressions, inundation, presence of hydrophytic vegetation, staining, cracked soil, ponding, and indicators of active surface flow and corresponding physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris. Suspected jurisdictional areas were checked for the presence of definable channels, soils, and hydrology.

#### 5.1.1 DRAINAGE FEATURES

Two riverine features were observed in the southern portion of the project site during the field investigation: one unnamed stream (Drainage A) and one associated tributary (Tributary A-1). These features are ephemeral features that only convey surface water in direct response to storm events. No drainage features were observed within the northern portion of the project site or within the off-site street improvement areas.

Drainage A enters the site from an elevated undeveloped rocky outcrop to the southwest. Drainage A conveys flows eastward towards two eight-inch culverts that convey flows beneath the unnamed access road that bounds the southern portion of the site to the east. Off-site, Drainage A continues conveying flows eastward towards two 36-inch corrugated metal pipe culverts, ultimately terminating at a MWD facility located approximately 0.25 miles to the east. Within site boundaries, Drainage A conveys flows for approximately 877 linear feet and has an OHWM that varies in width from approximately 2 to 4 feet. No wetland vegetation or hydric soils were observed. Surface water was present throughout Drainage A due to a storm that had passed through the area in the days preceding the survey. During the field delineation, approximately 286 feet of moderately disturbed riparian stream was observed. Riparian vegetation associated with Drainage A consisted of black willow (*Salix gooddingii*), mule fat (*Baccharis salicifolia*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), and tamarisk (*Tamarix ramosissima*). Vegetation within the understory of the riparian vegetation consisted of disturbed Riversidean sage scrub and non-native/ruderal grasses and annual species. No hydrophytic vegetation was observed within the riparian understory.

Tributary A-1 originates at a small rip-rap apron adjacent to the unnamed access road that bounds the southern portion of the site to the east. The rip-rap was assumed to have been installed to decrease erosion along the north/south dirt access road. Tributary A-1 conveys flows to the southwest for approximately 108 feet until converging with Drainage A. The OHWM for Tributary A-1 was approximately 2 feet in width. Vegetation associated with Tributary A-1 consisted of upland non-native grasses and ruderal annuals such as London rocket (*Sisymbrium irio*), red-stemmed filaree (*Erodium cicutarium*), cheeseweed (*Malva parviflora*), common fiddleneck (*Amsinckia intermedia*), riggut grass (*Bromus diandrus*), stink net (*Oncosiphon piluliferum*), summer mustard (*Hirschfeldia incana*), and Russian thistle (*Salsola australis*).




The conditions observed within Drainage A and Tributary A-1 are consistent with the documentation presented in the 2023 GLA report.

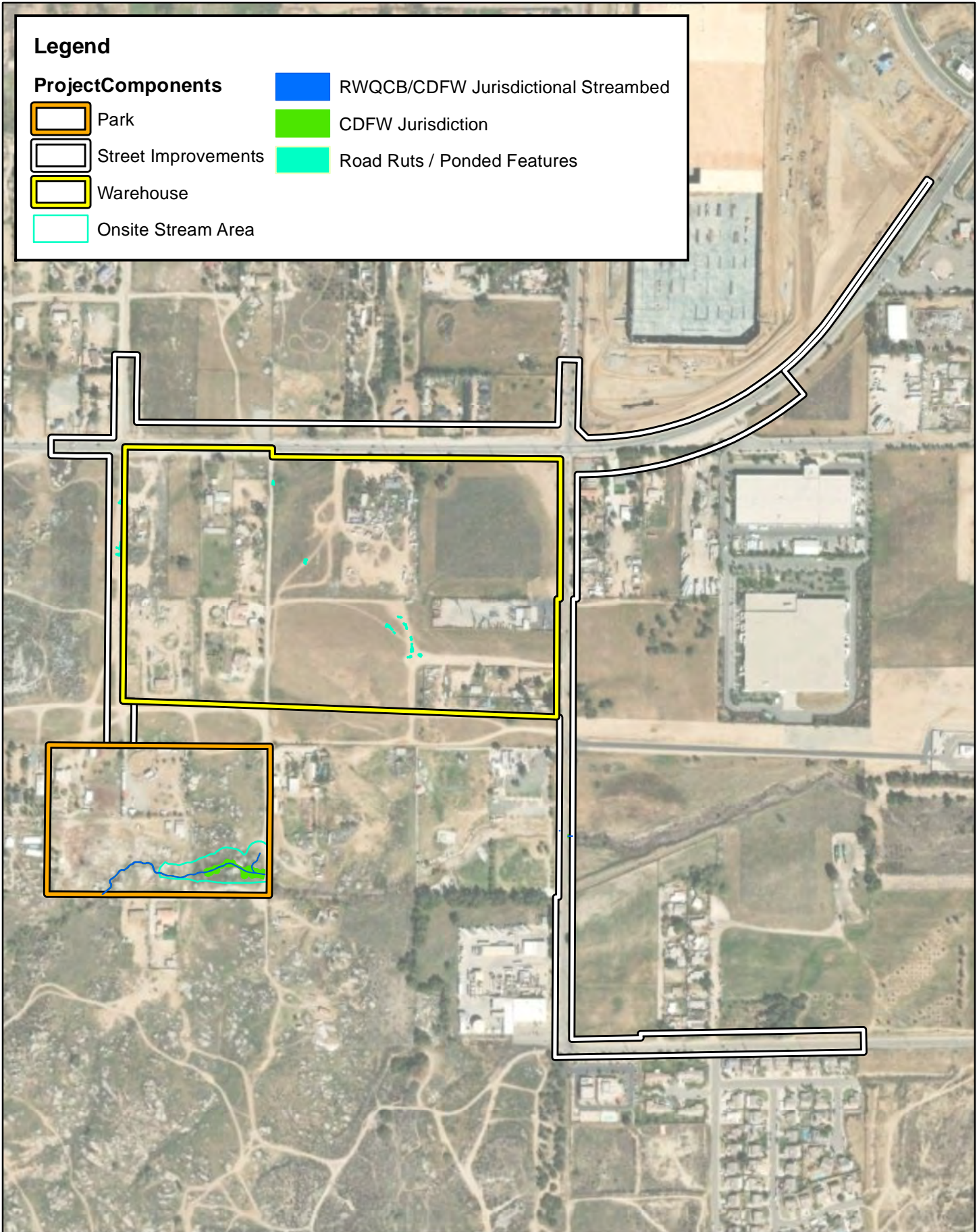
### **5.1.2 WETLAND FEATURES**

In order to qualify as a wetland, a feature must exhibit all three wetland parameters (i.e., vegetation, soils, and hydrology) described in the Corps Arid West Regional Supplement. Although evidence of hydrology (i.e., scour, changes in substrate, shelving) was present within the on-site drainages, these areas were dominated by upland plant species. Further, water does not persist long enough on the Project site to create hydric soil (anaerobic) conditions, and none of the on-site drainages supported a dominance of hydrophytic vegetation. As a result, no features on-site meet the Corps' or Regional Board's wetland definition to qualify as jurisdictional wetlands.

# Legend

## ProjectComponents

-  Park
-  Street Improvements
-  Warehouse
-  Onsite Stream Area
-  RWQCB/CDFW Jurisdictional Streambed
-  CDFW Jurisdiction
-  Road Ruts / Ponded Features



Source: ESRI Aerial Imagery, Riverside County

## CAJALCO COMMERCE CENTER Jurisdictional Areas

## Section 6 Findings

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This report presents the extent of jurisdictional features using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. Please refer to the following sections for a summary of jurisdictional areas within the Project site.

### 6.1 U.S. ARMY CORPS OF ENGINEERS DETERMINATION

#### 6.1.1 WATERS OF THE UNITED STATES DETERMINATION

The on-site ephemeral drainage features are not relatively permanent, standing, or continuously flowing body of water and, therefore, will not qualify as waters of the United States under the regulatory authority of the Corps (*Sackett v. EPA* (2022) 143 S. Ct. 1322, 1336).

#### 6.1.2 FEDERAL WETLAND DETERMINATION

An area must exhibit all three wetland parameters described in the Corps Arid West Regional Supplement to be considered a jurisdictional wetland. Based on the results of the field delineation, it was determined that no areas within the Project site met all three wetland parameters. Therefore, no jurisdictional wetland features exist within the Project site.

### 6.2 REGIONAL WATER QUALITY CONTROL BOARD

#### 6.2.1 WATERS OF THE STATE DETERMINATION

Drainage A and Tributary A-1 exhibit characteristics consistent with the Regional Board’s methodology and will be considered jurisdictional waters of the State. Regional Board jurisdiction associated with the project site totals 0.06 acre (985 linear feet), none of which is State wetland waters.

Based on the proposed project footprint, 0.06 acre (985 linear feet) of Regional Board waters of the State will be impacted from project implementation. Refer to Table 1 for a summary of on-site jurisdictional areas, and Exhibit 5, *Jurisdictional Areas*, and Exhibit 6, *Jurisdictional Impacts*, for illustrations of on-site Regional Board jurisdictional areas and anticipated impacts.

**Table 2: Regional Board Jurisdictional Waters**

Jurisdictional Feature	Regional Board Jurisdiction	
	On-Site Jurisdiction Acreage (Linear Feet)	Jurisdictional Impacts Acreage (Linear Feet)
Drainage A	0.057 (877)	0.057 (877)
Tributary A-1	0.003 (108)	0.003 (108)
<b>TOTAL</b>	<b>0.06 (985)</b>	<b>0.06 (985)</b>

## 6.2.2 STATE WETLAND DETERMINATION

Under the State Water Resources Control Board State Wetland Definition, an area is a wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Based on the results of the field delineation, it was determined that no areas within the Project site meet the State Wetland Definition. Therefore, no state wetland features exist within the Project site.

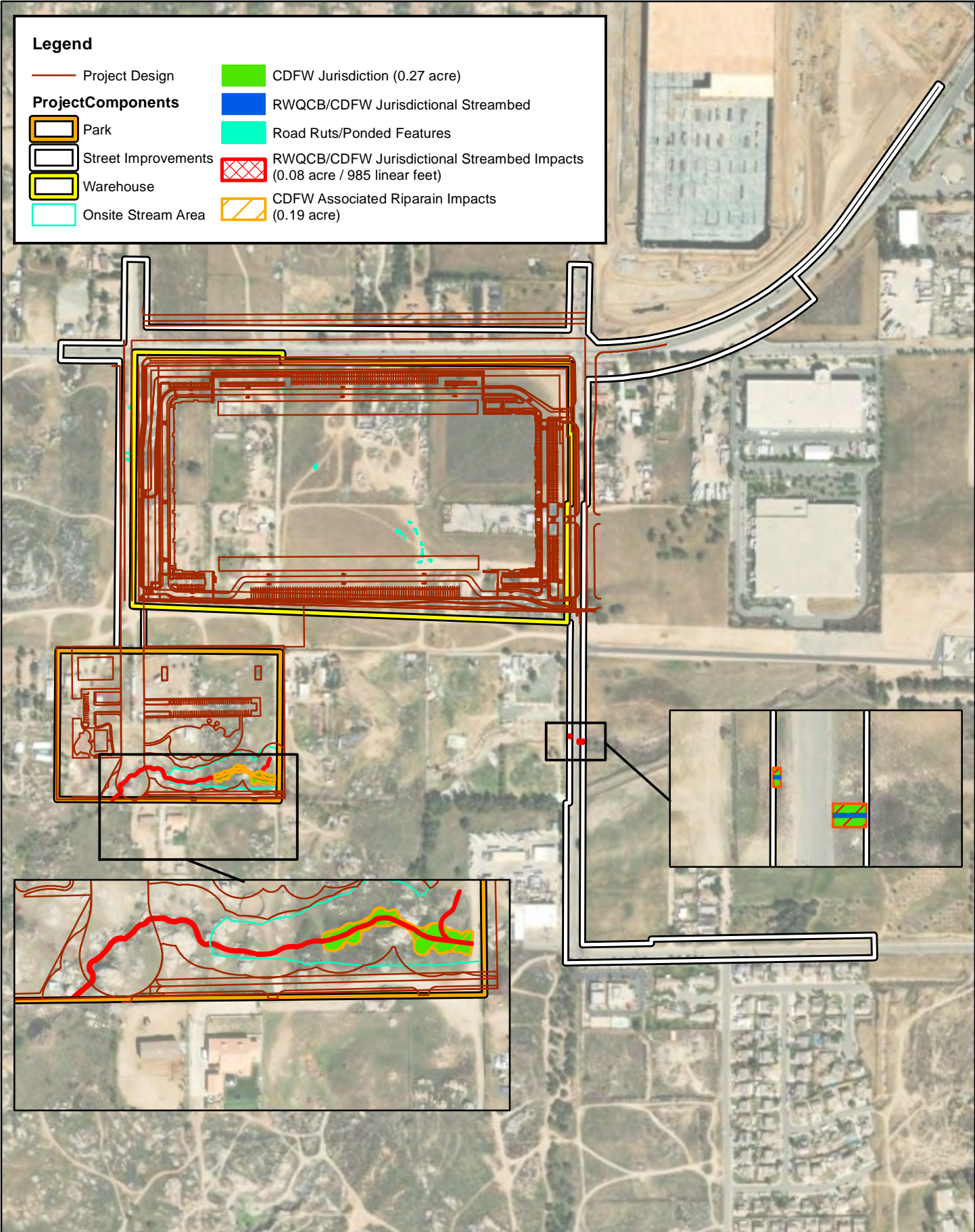
## 6.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The on-site drainage features and associated riparian habitat exhibits characteristics consistent with CDFW's methodology and would be considered CDFW jurisdictional streambed. Approximately 0.27 acre (985 linear feet) of CDFW jurisdiction was mapped within boundaries of the project site, consisting of 0.06 acre of jurisdictional streambed and 0.21 acre of associated habitat. CDFW's jurisdiction within Drainage A extends beyond the OHWM or streambed to the outer canopy of the riparian vegetation (disturbed southern willow scrub).

Based on the proposed project footprint, approximately 0.27 acre (985 linear feet) of CDFW jurisdictional streambed/riparian habitat will be impacted from project implementation. Refer to Table 2 for a summary of on-site jurisdictional areas, and Exhibit 5 and Exhibit 6, for illustrations of on-site CDFW jurisdictional areas and anticipated impacts.

**Table 3: CDFW Jurisdictional Waters**

Jurisdictional Feature	CDFW Jurisdiction	
	On-Site Jurisdiction Acreage (Linear Feet)	Jurisdictional Impacts Acreage (Linear Feet)
Drainage A	0.27 (877)	0.27 (877)
Tributary A-1	0.003 (108)	0.003 (108)
<b>TOTAL</b>	<b>0.27 (985)</b>	<b>0.27 (985)</b>



**Legend**

- Project Design
- CDFW Jurisdiction (0.27 acre)
- RWQCB/CDFW Jurisdictional Streambed
- Road Ruts/Ponded Features
- RWQCB/CDFW Jurisdictional Streambed Impacts (0.08 acre / 985 linear feet)
- CDFW Associated Riparian Impacts (0.19 acre)
- Warehouse
- Street Improvements
- Onsite Stream Area

**Project Components**

- Park
- Street Improvements
- Warehouse
- Onsite Stream Area

## **Section 7      Regulatory Approval Process**

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The following is a summary of the various permits, certifications, and agreements that may be necessary prior to construction and/or alteration within jurisdictional areas. Ultimately the regulatory agencies make the final determination of jurisdictional boundaries and permitting requirements.

### **7.1      UNITED STATES ARMY CORPS OF ENGINEERS**

The Corps regulates discharges of dredged or fill materials into waters of the United States and wetlands pursuant to Section 404 of the CWA. No Corps jurisdictional areas were identified within the project site and a CWA Section 404 permit would not be required for the proposed project.

### **7.2      REGIONAL WATER QUALITY CONTROL BOARD**

The Regional Board regulates discharges to surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act. Impacts to on-site jurisdictional areas will require a Report of Waste Discharge prior to project implementation. Therefore, it will be necessary for the applicant to acquire a Report of Waste Discharge prior to impacts occurring within Regional Board jurisdictional areas. The Regional Board also requires that California Environmental Quality Act (CEQA) compliance be obtained prior to obtaining the 401 Certification. A Regional Board Application fee is required with the application package and is calculated based on the acreage and linear feet of jurisdictional impacts.

### **7.3      CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

Pursuant to Section 1602 of the California Fish and Game Code, the CDFW regulates any activity that will divert or obstruct the natural flow or alter the bed, channel, or bank (which may include associated biological resources) of a river or stream. Therefore, impacts to the on-site jurisdictional areas will require a Section 1602 Streambed Alteration Agreement from the CDFW prior to project implementation. The notification will require a processing fee which is based on the term and cost of the proposed Project. It should also be noted that the CDFW requires that the payment of the process fee be paid and CEQA compliance be obtained prior to the issuance of the final Section 1602 Streambed Alteration Agreement.

## Section 8      References

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## **Appendix A      Site Photographs**

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**Photograph 1:** Looking north across the origin of Drainage A as it occurs on-site.



**Photograph 2:** Looking northeast across the middle portion of Drainage A.



**Photograph 3:** Looking north across the terminus of on-site portions of Drainage A. The confluence of Drainage A and Tributary A-1 occurs in the center of the photograph.



**Photograph 4:** Drainage A terminates at two culverts that convey flows beneath the unnamed access road that bounds the eastern boundary of the southern portion of the project site.

## **Appendix B      Documentation**

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April 2, 2024

### Wetlands

- |  |   |  |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland       |  Lake     |
|  Estuarine and Marine Wetland   |  Freshwater Forested/Shrub Wetland |  Other    |
|  |  Freshwater Pond                   |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

## **Appendix C      Methodology**

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## WATERS OF THE UNITED STATES

### *Section 404 of the Clean Water Act*

In accordance with the Revised Definition of “Waters of the United States”; Conforming (September 8, 2023), “waters of the United States” are defined as follows:

(a) *Waters of the United States* means:

(1) Waters which are:

- (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (ii) The territorial seas; or
- (iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under [paragraph \(a\)\(5\)](#) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:

- (i) Waters identified in [paragraph \(a\)\(1\)](#) of this section; or
- (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section

(b) The following are not “waters of the United States” even where they otherwise meet the terms of [paragraphs \(a\)\(2\)](#) through [\(5\)](#) of this section:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

- (4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
- (5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
- (6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
  
- (7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and
  
- (8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

(c) In this section, the following definitions apply:

- (1) **Wetlands** means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
  
- (2) **Adjacent** means having a continuous surface connection
  
- (3) **High tide line** means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.
  
- (4) **Ordinary high water mark** means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
  
- (5) **Tidal waters** means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.

## WETLANDS

For this project location, Corps jurisdictional wetlands are delineated using the methods outlined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps 2008). This document is one of a series of Regional Supplements to the Corps Wetland Delineation Manual (Corps 1987). The identification of wetlands is based on a three-parameter approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. In order to be considered a wetland, an area must exhibit at least minimal characteristics within these three (3) parameters. The Regional Supplement presents wetland indicators, delineation guidance, and other information that is specific to the Arid West Region. In the field, vegetation, soils, and evidence of hydrology are examined using the methodology listed below and documented on Corps wetland data sheets, when applicable. It should be noted that both the Regional Board and the CDFW jurisdictional wetlands encompass those of the Corps.

### Vegetation

Nearly 5,000 plant types in the United States may occur in wetlands. These plants, often referred to as hydrophytic vegetation, are listed in regional publications by the U.S. Fish and Wildlife Service (USFWS). In general, hydrophytic vegetation is present when the plant community is dominated by species that can tolerate prolonged inundation or soil saturation during growing season. Hydrophytic vegetation decisions are based on the assemblage of plant species growing on a site, rather than the presence or absence of particular indicator species. Vegetation strata are sampled separately when evaluating indicators of hydrophytic vegetation. A stratum for sampling purposes is defined as having 5 percent or more total plant cover. The following vegetation strata are recommended for use across the Arid West:

- ◆ *Tree Stratum:* Consists of woody plants 3 inches or more in diameter at breast height (DBH), regardless of height;
- ◆ *Sapling/shrub stratum:* Consists of woody plants less than 3 inches DBH, regardless of height;
- ◆ *Herb stratum:* Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size; and,
- ◆ *Woody vines:* Consists of all woody vines, regardless of size.

The following indicator is applied per the test method below.<sup>1</sup> Hydrophytic vegetation is present if any of the indicators are satisfied.

<sup>1</sup> Although the Dominance Test is utilized in the majority of wetland delineations, other indicator tests may be employed. If one indicator of hydric soil and one primary or two secondary indicators of wetland hydrology are present, then the Prevalence Test (Indicator 2) may be performed. If the plant community satisfies the Prevalence Test, then the vegetation is hydric. If the Prevalence Test fails, then the Morphological Adaptation Test may be performed, where the delineator analyzes the vegetation for potential morphological features.

### Indicator 1 – Dominance Test

Cover of vegetation is estimated and is ranked according to their dominance. Species that contribute to a cumulative total of 50% of the total dominant coverage, plus any species that comprise at least 20% (also known as the “50/20 rule”) of the total dominant coverage, are recorded on a wetland data sheet. Wetland indicator status in California (Region 0) is assigned to each species using the *National Wetland Plant List, version 2.4.0* (Corps 2012). If greater than 50% of the dominant species from all strata were Obligate, Facultative-wetland, or Facultative species, the criteria for wetland vegetation is considered to be met. Plant indicator status categories are described below:

- ◆ *Obligate Wetland (OBL)*: Plants that almost always occur in wetlands;
- ◆ *Facultative Wetland (FACW)*: Plants that usually occur in wetlands, but may occur in non-wetlands;
- ◆ *Facultative (FAC)*: Plants that occur in wetlands and non-wetlands;
- ◆ *Facultative Upland (FACU)*: Plants that usually occur in non-wetlands, but may occur in wetlands; and,
- ◆ *Obligate Upland (UPL)*: Plants that almost never occur in wetlands.

### **Hydrology**

Wetland hydrology indicators are presented in four (4) groups, which include:

#### Group A – Observation of Surface Water or Saturated Soils

Group A is based on the direct observation of surface water or groundwater during the site visit.

#### Group B – Evidence of Recent Inundation

Group B consists of evidence that the site is subject to flooding or ponding, although it may not be inundated currently. These indicators include water marks, drift deposits, sediment deposits, and similar features.

#### Group C – Evidence of Recent Soil Saturation

Group C consists of indirect evidence that the soil was saturated recently. Some of these indicators, such as oxidized rhizospheres surrounding living roots and the presence of reduced iron or sulfur in the soil profile, indicate that the soil has been saturated for an extended period.

#### Group D – Evidence from Other Site Conditions or Data

Group D consists of vegetation and soil features that indicate contemporary rather than historical wet conditions, and include shallow aquitard and the FAC-neutral test.

If wetland vegetation criteria is met, the presence of wetland hydrology is evaluated at each transect by recording the extent of observed surface flows, depth of inundation, depth to saturated soils, and depth to free water in the soil test pits. The lateral extent of the hydrology indicators are used as a guide for locating soil pits for evaluation of hydric soils and jurisdictional areas. In portions of the stream where the flow is divided by multiple channels with intermediate sand bars, the entire area between the channels is considered within the OHWM and the wetland hydrology indicator is considered met for the entire area.

## Soils

A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper 16-20 inches.<sup>2</sup> The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. It should also be noted that the limits of wetland hydrology indicators are used as a guide for locating soil pits. If any hydric soil features are located, progressive pits are dug moving laterally away from the active channel until hydric features are no longer present within the top 20 inches of the soil profile.

Once in the field, soil characteristics are verified by digging soil pits along each transect to an excavation depth of 20 inches; in areas of high sediment deposition, soil pit depth may be increased. Soil pit locations are usually placed within the drainage invert or within adjoining vegetation. At each soil pit, the soil texture and color are recorded by comparison with standard plates within a *Munsell Soil Chart* (2009). Munsell Soil Charts aid in designating color labels to soils, based by degrees of three simple variables – hue, value, and chroma. Any indicators of hydric soils, such as organic accumulation, iron reduction, translocation, and accumulation, and sulfate reduction, are also recorded.

Hydric soil indicators are present in three groups, which include:

### All Soils

“All soils” refers to soils with any United States Department of Agriculture (USDA) soil texture. Hydric soil indicators within this group include histosol, histic epipedon, black histic, hydrogen sulfide, stratified layers, 1 cm muck, depleted below dark surface, and thick dark surface.

### Sandy Soils

“Sandy soils” refers to soil materials with a USDA soil texture of loamy fine sand and coarser. Hydric soil indicators within this group include sandy mucky mineral, sandy gleyed matrix, sandy redox, and stripped matrix.

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<sup>2</sup> According to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (Corps 2008), growing season dates are determined through on-site observations of the following indicators of biological activity in a given year: (1) above-ground growth and development of vascular plants, and/or (2) soil temperature.

### Loamy and Clayey Soils

“Loamy and clayey soils” refers to soil materials with a USDA soil texture of loamy very fine sand and finer. Hydric soil indicators within this group include loamy mucky mineral, loamy gleyed matrix, depleted matrix, redox dark surface, depleted dark surface, redox depressions, and vernal pools.

### **SWANCC WATERS**

The term “isolated waters” is generally applied to waters/wetlands that are not connected by surface water to a river, lake, ocean, or other body of water. In the presence of isolated conditions, the Regional Board and CDFW take jurisdiction through the application of the OHWM/streambed and/or the 3 parameter wetland methodology utilized by the Corps.