



Aquatic Resource Delineation Report
for the Los Coches Low Flow Urban Runoff
Diversion to Sewer Project
San Diego County, California
DPW Project Number 1023735

Prepared for
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July 6, 2022

A handwritten signature in black ink, appearing to read "J. R. Sundberg".

J. R. Sundberg, Biologist

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Acronyms and Abbreviations

APT	Antecedent Precipitation Tool
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
FAC	Facultative
GPS	global positioning system
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
project	Los Coches Low Flow Urban Runoff Diversion to Sewer Project
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
TNW	Traditional Navigable Water
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey

1.0 Site Description and Landscape Setting

This report describes methodologies and results of an aquatic resources delineation conducted by RECON Environmental, Inc. for the County of San Diego Department of Public Works for the Los Coches Low Flow Urban Runoff Diversion to Sewer Project (project). The project proposes to capture and divert dry weather flows from an existing storm drain outfall to an existing County of San Diego sanitary sewer by using a gravity flow system. The purpose of the delineation is to map aquatic resources within the project area and assign potential jurisdictions.

1.1 Site Description

The project is located in Lakeside, California (Figure 1), within the El Cajon land grant of the U.S. Geological Survey (USGS) 7.5-minute topographic map, El Cajon quadrangle (USGS 1996; Figure 2). All figures referenced in this report are located in Attachment 1. The Review Area includes a project area starting near the crossing of Los Coches Creek and Los Coches Creek Road extending approximately 400 feet southeastward along Los Coches Road (Figure 3). The Assessor's Parcel Numbers within the Review Area are 3970607800, 3970607900, 3970608600, 3970609000, 3973700100, 3973700200, 3973700300, 3973700400, 3973700500, 3973700600, 3973700700, and 3973700800. For the purposes of this report, the Review Area consists of the project area and a 100-foot buffer (see Figure 3).

1.2 Contact Information

The applicant will accompany the U.S. Army Corps of Engineers (USACE) on all site visits. The USACE must contact the applicant prior to visiting the site. The contact information for the applicant is:

Property Owner:	Multiple. County of San Diego easement occurs along roadways
Applicant:	County of San Diego, Department of Public Works
Primary Contact:	Ms. Kimberly Jones
Telephone:	619-241-5059
E-mail:	Kimberly.Jones@sdcounty.ca.gov

2.0 Site Alterations, Current and Past Land Use

The Review Area mostly parallels and includes a portion of the Los Coches Road and the area around its intersection with Via Diego (see Figure 3). These areas contain paved roadbeds, adjacent engineered slopes, and the river valley of Los Coches Creek. Most of the area along Los Coches Road has been previously graded, with storm drain structures built along the roadway. The part of the Review Area within the river valley of Los Coches Creek is closer to natural grade but also has been subject to historic erosion and flood control (see Figure 3). The Review Area is mostly developed with some areas of native vegetation. All portions of the Review Area are subject to regular human visitation and many areas contain trash and/or ground disturbance.

2.1 Soils

Information on the soil types sampled in the Review Area (Figure 4) is summarized from the Soil Survey for San Diego County (U.S. Department of Agriculture [USDA] 1973), the San Diego Association of Governments' (SANDAG) 1995 geographic information system data (SANDAG 1995), and the Hydric Soils of California list obtained from the USDA Natural Resource Conservation Service (NRCS; 2022).

Tujunga sand, 0 to 5 percent slopes, is mapped within the northern portion of the Review Area, near Los Coches Creek and the intersection of Los Coches Creek Road and Via Diego (see Figure 4). Tujunga sand, 0 to 5 percent slopes, can be a hydric soil when occurring in drainageways and flood plains (NRCS 2022).

Ramona sandy loam, 5 to 9 percent slopes, is mapped within the western portion of the Review Area, along Via Diego (see Figure 4). This soil type is not considered hydric (NRCS 2022).

Vista coarse sandy loam, 15 to 30 percent slopes, and Vista rocky coarse sandy loam, 15 to 30 percent slopes, is mapped in a majority of the eastern segment of the Review Area (see Figure 4). None of these soil types are listed as hydric (NRCS 2022).

2.2 Hydrology

Two drainages occur in the Review Area: the main channel of Los Coches Creek and a smaller drainage running parallel to Los Coches Road. Los Coches Creek crosses through the northern part of the Review Area flowing westward. From the south, along Los Coches Road, there is a smaller drainage that is tributary to Los Coches Creek. Los Coches Creek is found within the National Wetland Inventory (NWI) but not the smaller tributary (U.S. Fish and Wildlife Service 2021; Figure 5). Within the Review Area, this drainage averages approximately three feet in width and appears to convey ephemeral flow. It flows into a culvert and through approximately 500 feet of storm drain before emptying into Los Coches Creek.

Los Coches Creek contains a natural bottom within the Review Area. It flows for approximately two miles north and drains into the San Diego River. The lower sections of Los Coches Creek become channelized and lined with concrete, extending north through residential areas.

2.3 Vegetation

Nine vegetation communities/land cover types—coast live oak woodland, southern willow scrub, disturbed southern riparian scrub, non-native riparian, non-vegetated channel, disturbed habitat, urban/developed, eucalyptus woodland, and non-native grassland—were identified within the review area. Areas containing disturbed habitat are generally associated with various roadways or adjacent to residential development, which also contain areas of ornamental plantings. The southern edge of the Review Area contains Diegan coastal sage scrub. Areas of southern riparian woodland occur along Los Coches Creek.

3.0 Precipitation Data and Analysis

Climate data, including precipitation totals, for the nearest recording station to the project site was gathered from the NRCS National Water and Climate Center databases. The climate data obtained are discussed below.

3.1 Climate and Growing Season

The project is located within an inland valley of southern California, in an area characterized by moderate temperature fluctuations throughout the year, with hot and dry summers and cooler and wetter winters. The majority of precipitation typically falls between December and March as somewhat frequent low- to moderate-intensity rainfall. The growing season typically lasts into late summer when little to no precipitation occurs and as temperatures increase. Rainfall amounts can vary from year to year, with the potential for periods of extended drought.

3.2 Antecedent Precipitation Tool Summary

The Antecedent Precipitation Tool (APT) was used to analyze the 30-day rolling total and the 30-year normal range of precipitation data for the nearest recording weather stations to the project. The data presented in the APT results graphics (Attachment 2) indicate that normal conditions occurred at the time of the April 7, 2022, survey. These results show that normal precipitation (approximately three inches) occurred in the vicinity of the Review Area in the three months prior to the April 7, 2022, survey, with 1.29 inches of rain in the month prior to the survey.

3.3 Wetland Hydrology and Analysis

The drainage of Los Coches Creek exhibits features of intermittent flow such as the presence of water more than a week after rainfall, lack of perennial vegetation in the channel, and ripples in the sediment. The small ephemeral drainage, running along Los Coches Road, only conveys flow in direct response to rain events. Although no quantitative flow regime analysis was conducted for these drainages, it lacks indicators of intermittent or perennial flow. This includes a lack of plant species with a wetland indicator status of FAC (Facultative) or wetter, a lack of algae, and a lack of surface water observed on aerial photography. As this portion of Los Coches Creek drains a large watershed, it has the capacity to support significant flooding during years of high rainfall. This type of flooding may alter the habitats along the creek as a result of substantial scouring and sediment transfer.

According to the results of the APT, no significant single rain events occurred in the weeks prior to the April 7, 2022, survey, and cumulative rainfall during the 2022 rainy season was close to average. These conditions were considered when analyzing the hydrology of the on-site features as discussed in Sections 4.0 and 5.0 below.

4.0 Investigation Methods

A routine waters/wetland delineation, following the guidelines set forth by USACE (1987 and 2008), was performed by RECON Environmental, Inc. biologist J.R. Sundberg on April 7, 2022, to gather field data at locations where aquatic resources occur in the Review Area. Once on-site, the potential federal and state jurisdictional areas were examined to determine the presence and extent of any aquatic resources.

4.1 Wetland Parameters

4.1.1 Hydrophytic Vegetation

Vegetation communities comprising partially or entirely of hydrophytic plant species were examined, and data for each vegetation stratum (i.e., tree, shrub, herb, and vine) were recorded on the datasheet provided in the 2008 Arid West Regional Supplement (USACE 2008). The percent absolute cover of each species present was visually estimated and recorded.

The wetland indicator status of each species recorded within a vegetation community was determined by using the arid west portion of the National Wetland Plant List (USACE 2020). Dominant species with an indicator status of NI (No Indicator) or not listed in the 2020 National Wetland Plant List were evaluated as either wetland or upland indicator species based on local professional knowledge of where the species are most often observed in habitats that are characteristic in southern California.

The dominance test was then used to determine which vegetation community qualified as hydrophytic vegetation at each site. In situations where a site failed the dominance test, the prevalence index was used to verify whether the hydrophytic vegetation standard was met. The presence or absence of morphological adaptations was noted; however, none of the sampled wetland areas required an analysis of morphological adaptations to determine if the vegetation was hydrophytic.

4.1.2 Hydric Soils

Sample points were selected within potential wetland areas and where the apparent boundary between wetland and upland was inferred based on changes in the composition of the vegetation and topography (Figure 6). Soil pits were dug to a depth of at least 18 inches to determine soil color, evidence of soil saturation, depth to groundwater, and indicators of a reducing soil environment (i.e., mottling, gleying, and hydrogen sulfide odor). A Munsell Soil Color Book (2009) was used to determine soil colors, and the 2008 Arid West Regional Supplement (USACE 2008) and the Field Indicators of Hydric Soils in the United States guide (USDA 2017) was used to determine the presence of hydric soil indicators.

4.1.3 Wetland Hydrology

Hydrologic information for the site was obtained by reviewing USGS topographic maps, analyzing climate conditions prior to the field survey, and by directly observing hydrology indicators in the field. All portions of any potentially occurring wetlands or non-wetland waters within the Review Area were inspected for signs of hydrology as defined in the 2008 Arid West Regional Supplement (USACE 2008).

4.2 Pre-Field Review

Prior to conducting the delineation, an aerial photograph, USGS topographic maps of the site, including the 7.5-minute El Cajon quadrangle (USGS 1996; see Figure 2), USDA soil maps of the site, and the NWI (see Figure 6) were examined to aid in the determination of potential waters of the U.S. on-site.

4.3 On-site Wetland Investigation

Once on-site, the Review Area was examined to determine the presence of any indicators of wetlands, including wetland vegetation, hydric soils, and hydrology. Field data, including hand drawn maps and recorded global positioning system (GPS) points and lines, were later digitized/downloaded into ArcGIS. Mapped aquatic resources created using these data were analyzed in ArcGIS to provide acreages or target aquatic resource and vegetation boundaries. USACE wetland determination data forms are included as Attachment 3 and photographs of the Review Area are provided in Attachment 4. Descriptions of the potential wetland vegetation communities sampled are provided below.

Portions of the Review Area support coast live oak woodland, southern willow scrub, disturbed southern riparian scrub, and non-native riparian all of which were found not to meet the hydrophytic vegetation standard (Photographs 1 and 2). This habitat is characterized by mature coast live oak with scattered willow and cottonwood trees that create a discontinuous canopy cover. Shrub cover within the understory is generally low or absent but herbaceous cover can range from low to more than 50 percent. Plant species dominating the herbaceous layer can range from facultative to upland species.

4.4 On-site Ordinary High Water Mark Investigation

The lateral extent of the ordinary high-water mark (OHWM) was delineated along the various drainages in the Review Areas using the observed hydrology indicators in accordance with *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008). The OHWM data forms are included as Attachment 5. Indicators observed and used to determine the extent of the OHWM include a change in vegetation, change in sediment texture, a break in slope, drift and sediment deposits, and ripples (see Photographs 1, 3, and 4). Los Coches Creek contained the most indicators with fewer observed

in the small drainage along the roadway. Los Coches Creek contained flowing water at the time of the survey (see Photographs 1 and 3).

5.0 Description of Aquatic Resources

The aquatic resources delineated include riparian habitats and non-wetland waters mapped in the unvegetated active floodplain of Los Coches Creek and the smaller drainage. These riparian and non-wetland water aquatic resources total 0.83 acre within the Review Area. The location of these resources in relation to the Review Area boundaries is provided on Figure 6. The potential for these features to be considered waters under the jurisdiction of the California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), and/or USACE is discussed in Section 8.0 below.

5.1 Wetlands

As described above, none of the sample points within the Review Area met the three wetland parameters.

5.2 Riparian

Areas mapped as riparian total 0.62 acre and include those areas mapped as southern willow scrub, disturbed southern riparian scrub, coast live oak woodland, and non-native riparian occurring outside the OHWM of the two drainages (see Figure 6). As discussed in Section 4.3, these habitats are characterized by upland herbaceous vegetation, with scattered willow trees and coast live oak trees, with varying understory composition. Since these southern riparian woodland and disturbed riparian areas all occur in the vicinity of waterway features, they have ecological connections to those features. Therefore, coast live oak woodland, southern willow scrub, disturbed southern riparian scrub, and non-native riparian patches are mapped as riparian. There is a 0.07-acre portion of coast live oak woodland that consists of planted oaks on a steep hillside that was not considered riparian due to its lack of association with a stream channel.

5.3 Non-wetland Waters

Non-wetland waters were delineated within the Review Area along the unvegetated portions of the Los Coches Creek active floodplain and the smaller drainage along Los Coches Road, totaling 0.21 acre and 387 linear feet (see Figure 6). These areas are comprised of the naturally occurring low flow channel that contained flowing water at the time of the survey in Los Coches Creek and the dry channel of the smaller tributary drainage. The lateral extent of the non-wetland waters areas was delineated at the OHWM. The OHWM here coincides with a break in slope, a change in vegetation and sediment composition, and other OHWM indicators mentioned in Section 4.4 above. This portion of Los Coches Creek appears to support an intermittent flow regime.

6.0 Deviation from National Wetland Inventory

The results of this analysis did not vary from those classified in the NWI (see Figure 5). Los Coches Creek is classified as intermittent riverine (R4SBC) and appears to exhibit an intermittent flow regime. The smaller drainage is not mapped in the NWI and has an ephemeral flow regime. The location of this channel may have been altered during development of the surrounding residential areas and road construction.

7.0 Mapping Method

The maps of the delineated aquatic resources within the Review Areas are based on the above analysis (see Figure 6). The boundary of the majority of aquatic resource was obtained from a combination of GPS data collected in the field, aerial photography, and recent topographic survey data. Geographic information system mapping software (ArcMap) was used to produce the graphical maps contained in this report.

8.0 Potential Jurisdictional Waters

This section provides a discussion of the potential for on-site aquatic resources to be considered waters under the jurisdiction of three agencies: USACE, RWQCB, and CDFW.

8.1 Potential USACE Waters of the U.S.

Under the Clean Water Act (CWA) Section 404, the USACE is authorized to regulate Waters of the U.S. including both wetland waters and non-wetland waters. The areas of potential Waters of the U.S. within the Review Area include non-wetland waters shown in Figure 6. Non-wetland waters along Los Coches Creek occur within the active floodplain delineated at the OHWM.

The different aquatic resource features have been numbered (see Figure 6) and a summary of these features is provided in Table 1. Los Coches Creek (feature 1 in Figure 6 and Table 1) appears to contain at least intermittent water flow. Los Coches Creek continues downstream from its confluence with this drainage, eventually draining into the San Diego River, a Traditional Navigable Water (TNW). In accordance with the CWA part 328.3, this moderate-sized drainage meets the definition of a relatively permanent water because it is a naturally occurring (at least) intermittent channel that contributes surface water flow to a TNW in a typical year. The unnamed smaller tributary in the south of the Review Area (feature 3 in Figure 6 and Table 1) would be considered a non-relatively permanent water of the U.S. having a significant nexus to a TNW. This nexus is the direct flow of the water into a storm drain system which empties into Los Coches Creek, then draining into the San Diego River, a TNW. The extent of these two features within the Review Area totals 0.21 acre and 387 linear feet and would likely be considered Non-wetland Waters of the U.S. under the jurisdiction of the USACE (Figure 7; Table 2).

Table 1 List of Aquatic Resources									
Waters ID	Cowardin Code	HGM Code	Area (acres)*	Linear Feet	Waters Type	Latitude (dd WGS84)	Longitude (dd WGS84)	Local Waterway	Dominant Vegetation
1	R4SB	Riverine	0.20	257	RPW	32.840053	-116.913481	Riverine	N/A
2	RP	Riparian	0.50	--	Non-wetland	32.839980	-116.913380	Riverine	<i>Quercus agrifolia</i>
3	R6	Riverine	0.01	50	NRPW	32.838911	-116.9116911	Riverine	N/A
4	RP	Riparian	0.12	--	Non-wetland	32.838914	-116.9116895	Riverine	<i>Fraxinus uhdei</i>
R6 = Ephemeral, Riverine; R4SB = Streambed, Intermittent; Riverine RP = Riparian; HGM = hydrogeomorphic; RPW = relatively permanent waters; NRPW = non-relatively permanent waters									
*Acreages are subject to rounding									

Table 2 Potential Jurisdictional Resources within Review Area (acres)	
Jurisdictional Resource	Acreage in Review Area (linear feet)
USACE Waters of the U.S.	0.21 (387)
Non-wetland Waters of the U.S.	0.21 (387)
RWQCB Waters of the State	0.21 (387)
Non-wetland Waters of the State	0.21 (387)
CDFW Jurisdictional Resources	0.83 (387)
Riparian	0.62
Streambed	0.21 (387)

The riparian areas (features 2 and 4 in Figure 6 and Table 1) occurring in the Review Area would likely not be USACE jurisdiction because they occur outside the OHWM and active floodplain of any drainage, and do not meet the three parameter USACE definition of a wetland.

8.2 Potential RWQCB Waters of the State

All Waters of the U.S. described above fall within the CWA Section 401 authority of the RWQCB and would likely be considered Waters of the State (Figure 8). Potential RWQCB jurisdiction within the Review Area totals 0.21 acre and 387 linear feet of Non-wetland Waters of the State (see Table 2).

8.3 Potential CDFW Jurisdictional Waters

Under sections 1600–1607 of the Fish and Game Code, the CDFW regulates activities that would divert or obstruct the natural flow or would substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. The CDFW has jurisdiction over riparian habitats associated with watercourses. Jurisdictional areas are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. Within the Review Area, areas likely under the jurisdiction of CDFW include Non-wetland Waters of the U.S. described above. These areas would likely be considered CDFW Streambed. In addition, the extent of riparian habitat,

as shown on Figure 8, would likely be considered CDFW Riparian. Potential on-site CDFW jurisdiction totals 0.62 acre of CDFW Riparian and 0.21 acre and 387 linear feet of CDFW streambed (see Table 2).

9.0 Results and Conclusions

Non-wetland riparian, and non-wetland waters were delineated within the Review Area. These features total 0.83 acre. Of this total, it is likely that the USACE would take jurisdiction of a total of 0.21 acre and 387 linear feet as Non-wetland Waters of the U.S., the RWQCB would take jurisdiction of a total of 0.21 acre and 387 linear feet as Non-wetland Waters of the State, and the CDFW would take jurisdiction of a total of 0.62 acre as CDFW Riparian and 0.21 acre and 387 linear feet as CDFW Streambed (see Table 2).

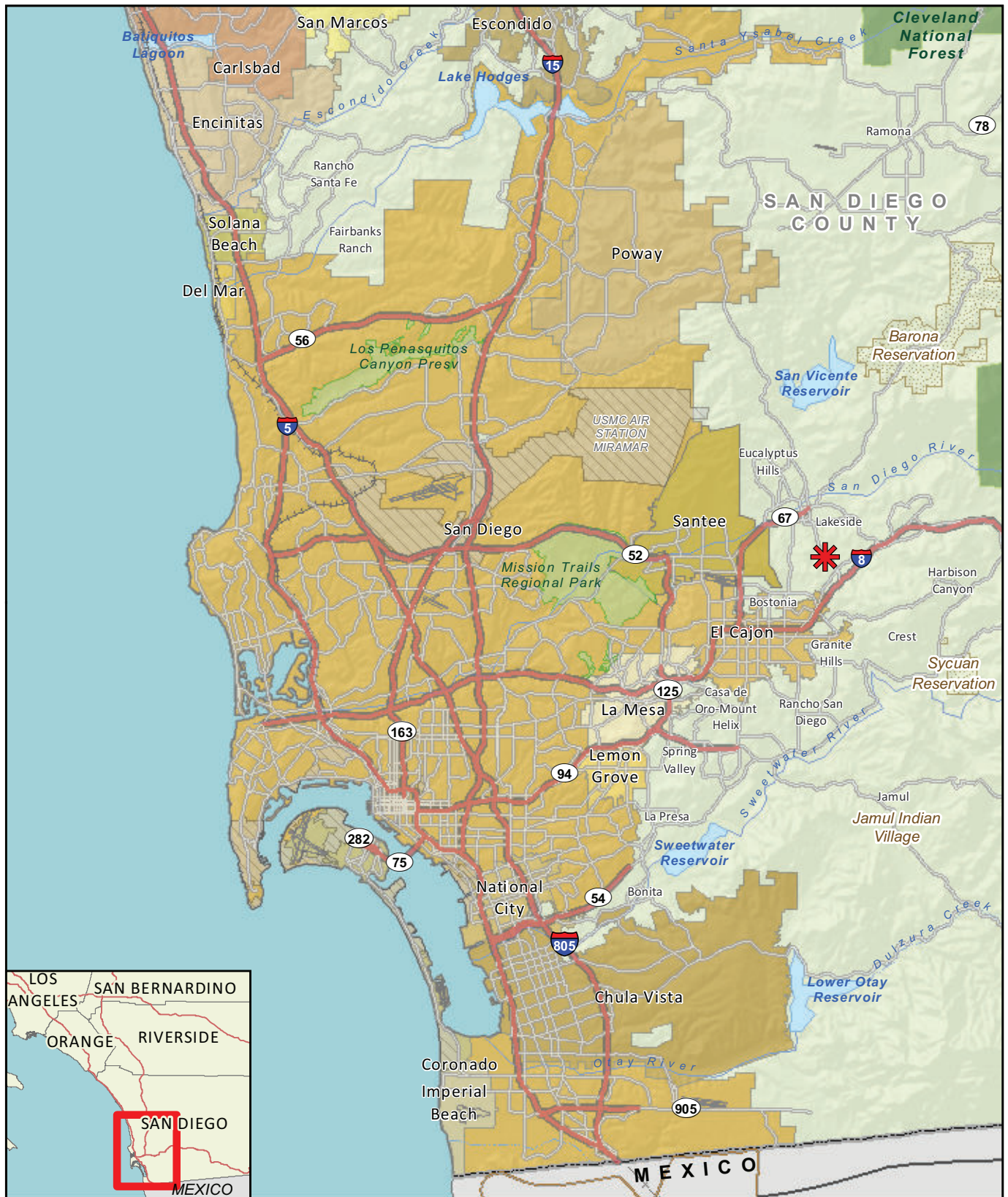
10.0 Disclaimer Statement

This report describes the results of an aquatic resource delineation conducted within the Review Areas, totaling approximately six acres. It was prepared in accordance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017). The aquatic resource delineation is used to identify and map the potential extent of the jurisdictional waters. The purpose of this study was to identify and map the limits of any aquatic resources on the property to provide necessary background information for analysis by the resource agencies in making a jurisdictional determination. The USACE, RWQCB, and CDFW will review the content of this report and ultimately decide jurisdiction for any waters that may be present in the Review Areas. References used in the preparation of this report are included in Attachment 6.

ATTACHMENTS

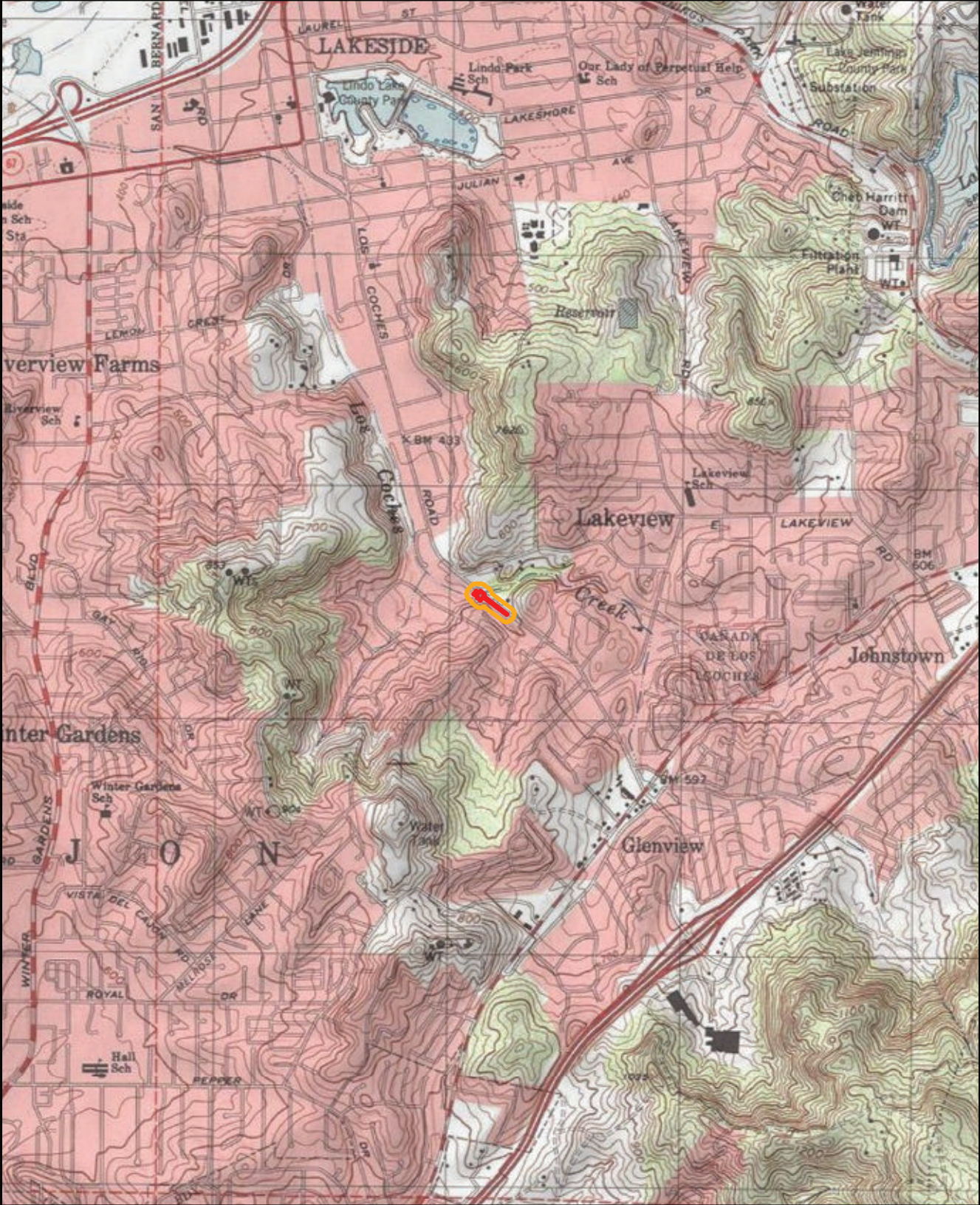
ATTACHMENT 1



Maps



 Project Location

FIGURE 1
Regional Location



-  Project Boundary
-  Review Area

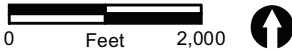


FIGURE 2
Review Area on USGS Map



-  Project Boundary
-  Review Area

FIGURE 3
Review Area on Aerial Photograph

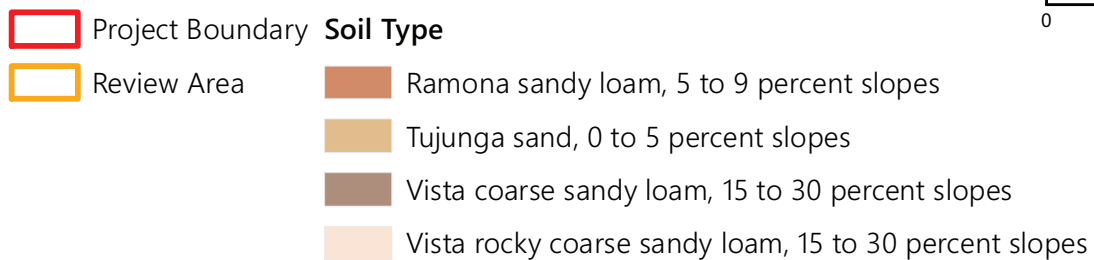
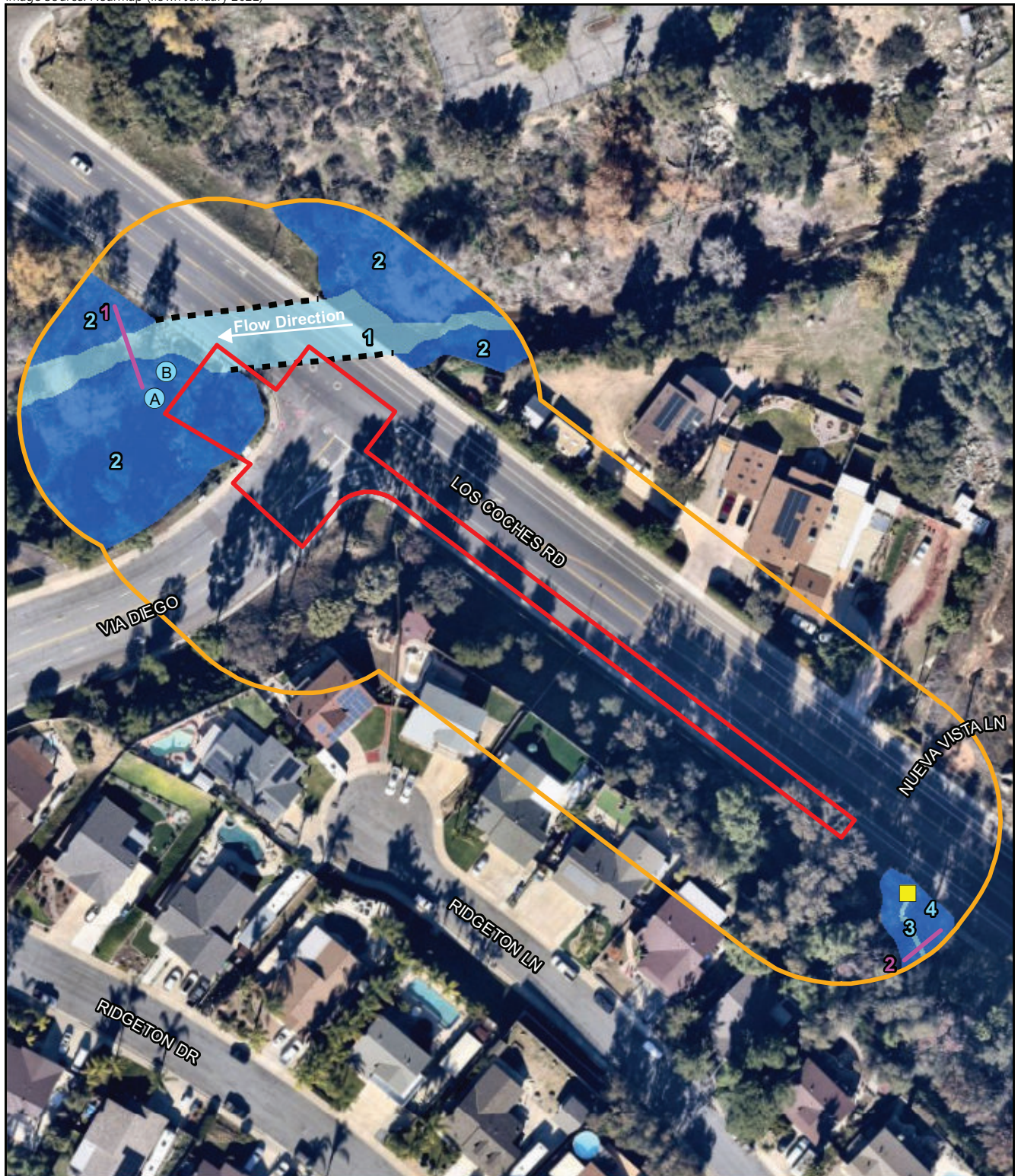


FIGURE 4
Review Area on Soils Map



- Project Boundary
- Review Area
- NHD/NWI Wetlands
- Stream/River



Project Boundary

Review Area

Approximate Bridge Width

OHWM Sample Line

Culvert (3-foot diameter)

Wetland Sample Point

Aquatic Resources

Non-wetland Waters

Non-wetland Riparian

Resource ID

0 Feet 100



FIGURE 6

Aquatic Resources Delineated
within the Review Area



Project Boundary

Review Area

Approximate Bridge Width

OHWM Sample Line

Culvert (3-foot diameter)

● Wetland Sample Point

Potential Jurisdictional Resources

USACE Non-wetland Waters of the U.S.

Resource ID

0 Feet 100



FIGURE 7

Potential USACE Waters of the U.S.
within the Review Area



Project Boundary



Review Area



Approximate Bridge Width



OHWM Sample Line



Culvert (3-foot diameter)



Wetland Sample Point

Potential RWQCB and CDFW Resources



RWQCB Non-wetland Waters of the State, CDFW Streambed



CDFW Riparian



Resource ID



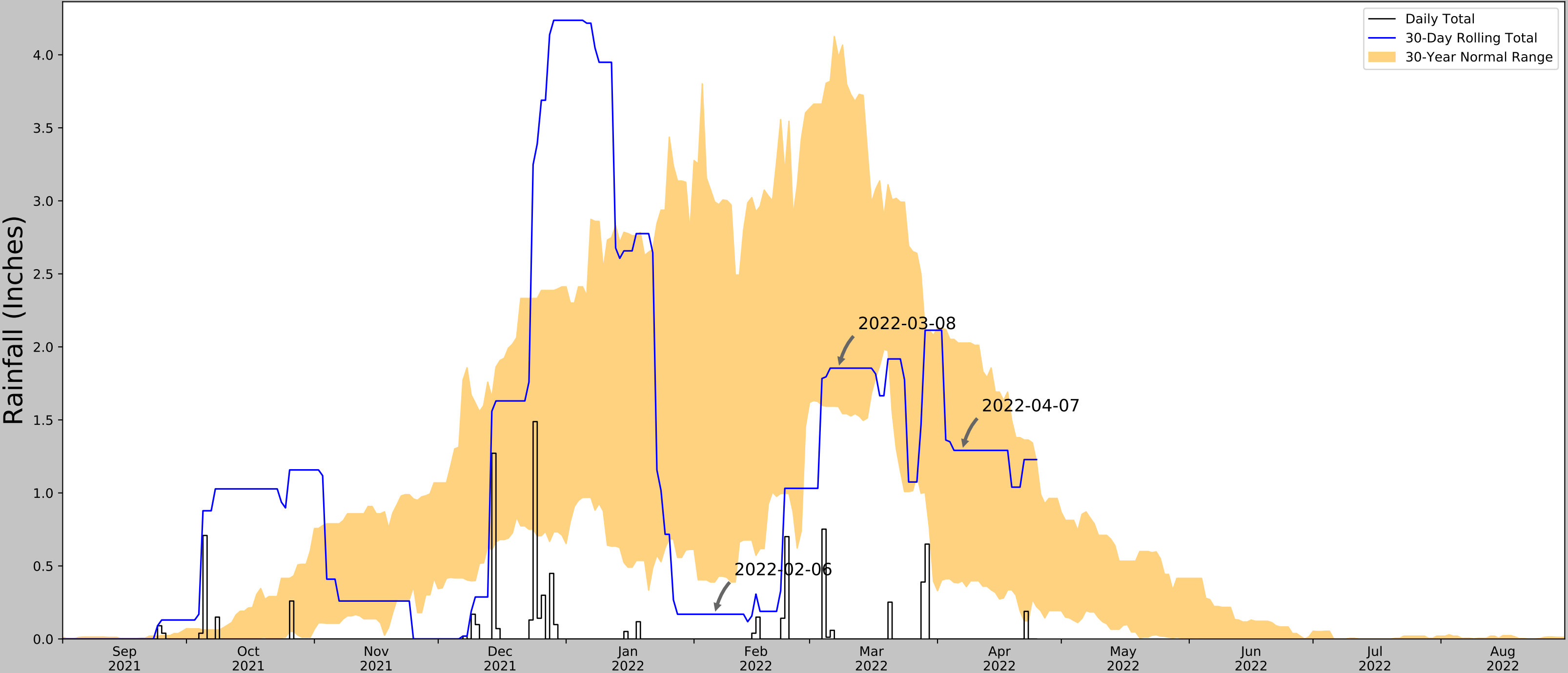
FIGURE 8

Potential RWQCB Waters of the State and
CDFW Riparian/Streambed within the Review Area

ATTACHMENT 2

Antecedent Precipitation Tool Results

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	32.83993, -116.91341
Observation Date	2022-04-07
Elevation (ft)	458.5
Drought Index (PDSI)	Not available
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-04-07	0.397638	2.026772	1.291339	Normal	2	3	6
2022-03-08	1.591339	3.984646	1.854331	Normal	2	2	4
2022-02-06	0.389764	2.993307	0.169291	Dry	1	1	1
Result							Normal Conditions - 11

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
EL CAJON	32.8006, -116.9281	495.079	2.848	36.579	1.386	10288	85
LAKESIDE 2 E	32.8536, -116.8947	689.961	1.439	231.461	0.981	966	0
EL CAJON 2.2 ENE	32.8153, -116.9269	637.139	1.873	178.639	1.178	0	5
EL CAJON 2.3ENE	32.8112, -116.9254	609.908	2.104	151.408	1.265	2	0
EL CAPITAN DAM	32.8856, -116.815	600.066	6.525	141.566	3.86	31	0
LA MESA	32.7675, -117.0233	529.856	8.11	71.356	4.228	35	0
SAN DIEGO MONTGOMERY FLD	32.8158, -117.1394	416.995	13.226	41.505	6.501	31	0

ATTACHMENT 3

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Los Cocheros Dry Weather Diversion City/County: Lakeside, San Diego Co Sampling Date: 2022 Apr 7
 Applicant/Owner: County of San Diego State: CA Sampling Point: A
 Investigator(s): J. R. Sundberg Section, Township, Range: Unsectioned, El Cajon Land Grant
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Flat Slope (%): 1
 Subregion (LRR): LRR C-19 Lat: 32.83993 Long: -116.91341 Datum: WGS 84
 Soil Map Unit Name: Tujunga sand, 0-5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: <u>Sample location not a Wetland. It is located on a flat bench in the river valley of Los Cocheros Creek.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
Sapling/Shrub Stratum				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>85</u> x 5 = <u>425</u> Column Totals: <u>85</u> (A) <u>425</u> (B) Prevalence Index = B/A = <u>5.0</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
Herb Stratum				
1. <u>Bromus diandrus</u>	<u>30</u>	<u>Yes</u>	<u>NI</u>	
2. <u>Urtica urens</u>	<u>25</u>	<u>Yes</u>	<u>NI</u>	
3. <u>Phacelia imbricata</u>	<u>10</u>	<u>No</u>	<u>NI</u>	
4. <u>Carduus pycnocephalus</u>	<u>10</u>	<u>No</u>	<u>NI</u>	
5. <u>Hirschfeldia incana</u>	<u>5</u>	<u>No</u>	<u>NI</u>	
6. <u>Raphanus sativus</u>	<u>5</u>	<u>No</u>	<u>NI</u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>85</u>				
Woody Vine Stratum				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
% Bare Ground in Herb Stratum: <u>15</u> % Cover of Biotic Crust: <u>0</u>				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>				

Remarks: Vegetation dominated by upland herbaceous species

SOIL

Sampling Point: A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	5YR 4/3	100					Sand	Very consistent

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No redox features observed. Uniform texture and color.

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Los Cocheros Day Weather Diversion City/County: Lakeside, San Diego Co. Sampling Date: 2022 Apr 7
 Applicant/Owner: County of San Diego State: CA Sampling Point: B
 Investigator(s): J. R. Sundberg Section, Township, Range: Unsectioned, El Cajon Land Grant
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): 3
 Subregion (LRR): LRR C 19 Lat: 32.83998 Long: -116.91338 Datum: NGS84
 Soil Map Unit Name: Tujunga sand, 0-5 percent slopes NWI classification: R4SBC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X
 Wetland Hydrology Present? Yes No X

Is the Sampled Area within a Wetland? Yes No X

Remarks: Sample location not a wetland. It is located immediately adjacent to the low-flow channel of Los Cocheros Creek on a low terrace.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>

Total Cover:

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Baccharis salicifolia</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Ricinus communis</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Salix lasiolepis</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
4. <u>Acundo donax</u>	<u>2</u>	<u>No</u>	<u>FACW</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>

Total Cover: 37

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carduus pycnocephalus</u>	<u>25</u>	<u>Yes</u>	<u>NI</u>
2. <u>Ambrosia psilostachya</u>	<u>7</u>	<u>No</u>	<u>FACU</u>
3. <u>Xanthium strumarium</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
4. <u>Hirschfeldia incana</u>	<u>10</u>	<u>No</u>	<u>NI</u>
5. <u>Cyperus involucreatus</u>	<u>1</u>	<u>No</u>	<u>FACW</u>
6. <u>Galium aparine</u>	<u>2</u>	<u>No</u>	<u>FACU</u>
7. <u>Erigeron canadensis</u>	<u>1</u>	<u>No</u>	<u>FACU</u>
8. <u>Nasturtium officinale</u>	<u>1</u>	<u>No</u>	<u>OBL</u>

Total Cover: 54

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>

Total Cover:

% Bare Ground in Herb Stratum 46 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 % (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>1</u>	x 1 = <u>1</u>
FACW species <u>8</u>	x 2 = <u>16</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>79</u> (A)	<u>302</u> (B)

Prevalence Index = B/A = 3.82

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- Prevalence Index is ≤3.0¹
- Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No X

Remarks: Although some wetland indicator species are present, The vegetation does not meet the hydrophytic vegetation criteria.

Sampling Point: B

[illegible]

No redox features. Uniform texture and color.

Some drift present near the edge of the channel but not uniformly present in sample area.

ATTACHMENT 4

Ground Level Color Photographs



PHOTOGRAPH 1

View of Main Channel of Los Coches Creek West of the Bridge



PHOTOGRAPH 2

View of Southern Riparian Woodland along Los Coches Creek



PHOTOGRAPH 3
View of Los Coches Creek East of the Bridge and
Disturbed Riparian Vegetation



PHOTOGRAPH 4
View of Tributary Drainage along Los Coches Road,
Facing Upstream from the Culvert

ATTACHMENT 5

Ordinary High Water Mark Data Sheets

Arid West Ephemeral and Intermittent Streams OHW M Datasheet

1

Project: Los Cocheros Dry Weather Diversion Project Number: 9009.22 Stream: Los Cocheros Creek Investigator(s): J. R. Sundberg	Date: 2022 Apr 7 Town: Lakeside Photo begin file#: Time: 9:07 State: CA Photo end file#:
---	---

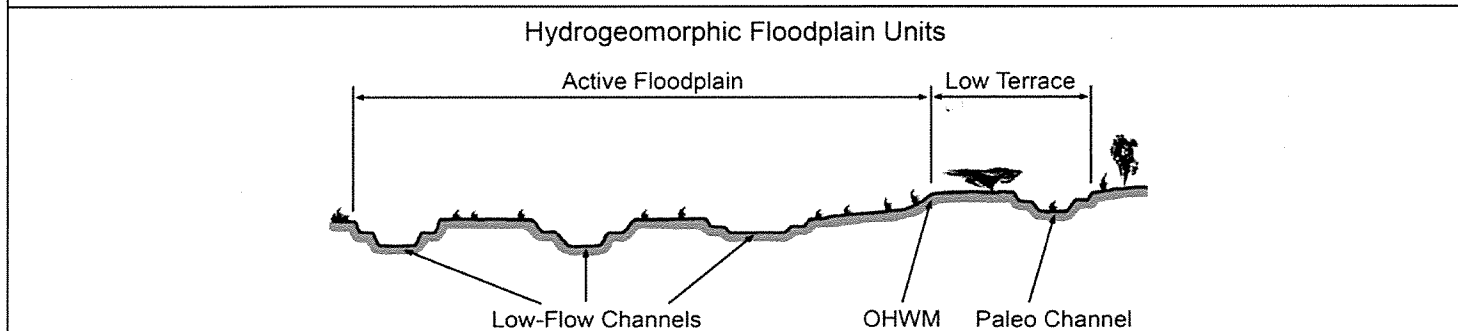
Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Is the site significantly disturbed?	Location Details: Projection: Datum: Coordinates: 32.840053 -116.913481
--	--

Potential anthropogenic influences on the channel system:
 Box culvert 40 ft upstream

Brief site description:

Checklist of resources (if available):

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



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

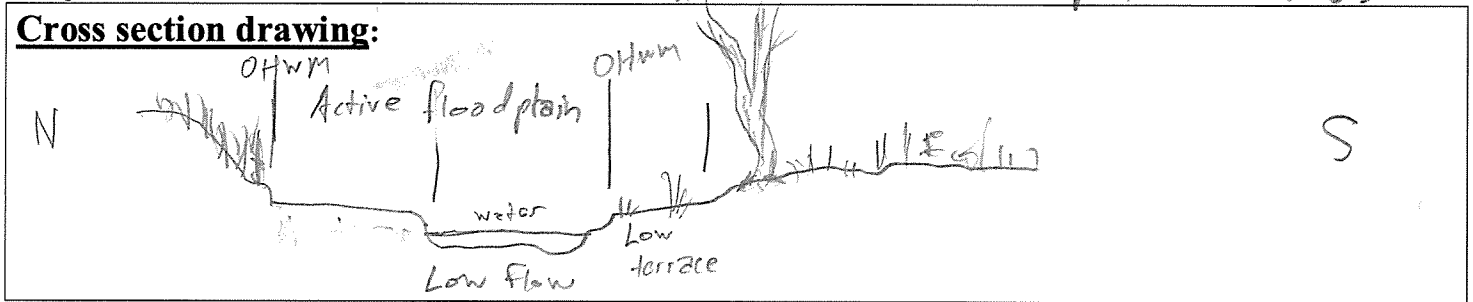
1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is 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 OHW M and record the indicators. Record the OHW M position via:

<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS
<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:

Project ID: 9009.22 Cross section ID: 1

Date: 2022 Apr 7 Time: 7:09

Cross section drawing:



OHWM

GPS point: 32.840053 -116.913481

Indicators:

- ☒ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover

- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments: Recent flow made OHWM Fresh and distinctly visible

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

GPS point: 32.840051 -116.913480

Characteristics of the floodplain unit:

Average sediment texture: Sand

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

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: Water
- ☐ Other: _____
- ☐ Other: _____

Comments:

Stream at low flow state

Project ID: 9009.2

Cross section ID: 1

Date: 2022 Apr 7 Time: 9:09

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

GPS point: 32.840050 -116.913479

Characteristics of the floodplain unit:

Average sediment texture: Sand

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

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:**

Sediment ripples apparent from recent flow.

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

GPS point: 32.840007, -116.913463

Characteristics of the floodplain unit:

Average sediment texture: fine sand

Total veg cover: 40 % Tree: 10 % Shrub: 15 % Herb: 15 %

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:**Recent drift. May have been deposited last peak flow.
No sediment sorting, Herbaceous vegetation.

Arid West Ephemeral and Intermittent Streams OHW M Datasheet

2

Project: Los Cocheros Dry Weather Diversion		Date: 2022 Apr 7		Time: 11:30	
Project Number: 9009.22		Town: Lakeside		State: CA	
Stream: Los Cocheros Creek		Photo begin file#:		Photo end file#:	
Investigator(s): J. R. Sundberg		Time stamp			

Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site?	Location Details: Drainage
Y <input type="checkbox"/> / N <input checked="" type="checkbox"/> Is the site significantly disturbed?	Projection: Datum: WGS 84 Coordinates: 32.838911 -116.911691

Potential anthropogenic influences on the channel system:
 Runoff from roadway increases peak flows.

Brief site description:
 Drainage runs parallel to Los Cocheros Road then flows into a culvert.

Checklist of resources (if available):

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

Hydrogeomorphic Floodplain Units

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

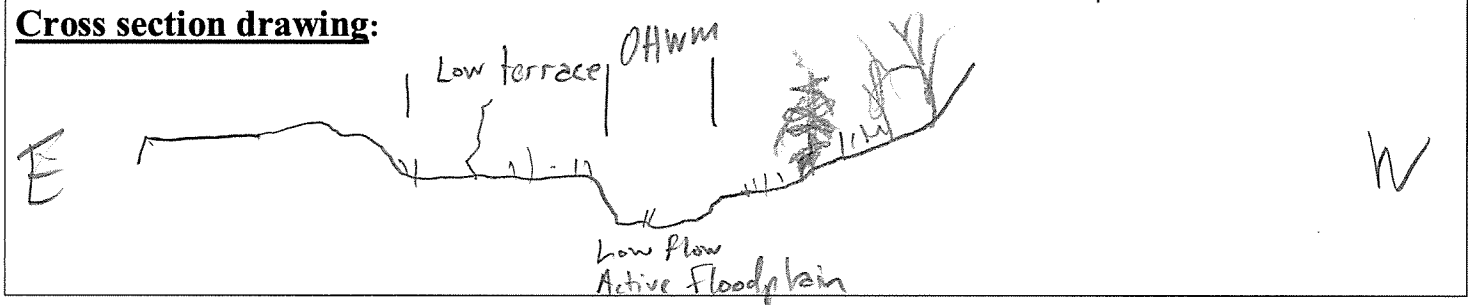
1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is 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 OHW M and record the indicators. Record the OHW M position via:

<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS
<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:

Project ID: 9009.22

Cross section ID: 2

Date: 2022 Apr 7 Time: 11:30

Cross section drawing:**OHWM**

GPS point: 32.838911 -116.911691

Indicators:

- ☒ Change in average sediment texture
☐ Change in vegetation species
☒ Change in vegetation cover

- ☒ Break in bank slope
☒ Other: Lack of leaf litter
☐ Other: _____

Comments:

Channel defined by lower vegetation cover, break in slope, and lack of leaf litter.

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

GPS point: 32.838908 -116.911689

Characteristics of the floodplain unit:Average sediment texture: SandTotal veg cover: 5 % Tree: 0 % Shrub: 0 % Herb: 5 %

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:

Exposed tree roots are present in the banks of the channel.

Project ID: 9009.22 Cross section ID: 2 Date: 2022 Apr 7 Time: 11:30

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

GPS point: 32.838910 -116.911693

Characteristics of the floodplain unit:

Average sediment texture: loam

Total veg cover: 50 % Tree: 30 % Shrub: 10 % Herb: 10 %

Community successional stage:

- | | |
|---|---|
| <input type="checkbox"/> NA | <input type="checkbox"/> Mid (herbaceous, shrubs, saplings) |
| <input type="checkbox"/> Early (herbaceous & seedlings) | <input checked="" type="checkbox"/> Late (herbaceous, shrubs, mature trees) |

Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Mudcracks | <input type="checkbox"/> Soil development |
| <input type="checkbox"/> Ripples | <input type="checkbox"/> Surface relief |
| <input checked="" type="checkbox"/> Drift and/or debris | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Presence of bed and bank | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Benches | <input type="checkbox"/> Other: _____ |

Comments:

Recent high flows may have deposited drift just above the floodplain.

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:

- | | |
|---|--|
| <input type="checkbox"/> NA | <input type="checkbox"/> Mid (herbaceous, shrubs, saplings) |
| <input type="checkbox"/> Early (herbaceous & seedlings) | <input type="checkbox"/> Late (herbaceous, shrubs, mature trees) |

Indicators:

- | | |
|---|---|
| <input type="checkbox"/> Mudcracks | <input type="checkbox"/> Soil development |
| <input type="checkbox"/> Ripples | <input type="checkbox"/> Surface relief |
| <input type="checkbox"/> Drift and/or debris | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Presence of bed and bank | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Benches | <input type="checkbox"/> Other: _____ |

Comments:

ATTACHMENT 6

References Cited

References Cited

Lichvar, R. W., and S. M. McColley

- 2008 *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual*. ERDC/CRREL TR-08-12. August.

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- 2022 Hydric Soils of California. Available at <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>

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- 1995 Soil Series GIS Data. Data digitized from USDA-1973. Soil Survey, San Diego area. Obtained from http://www.sandag.org/resources/maps_and_gis/gis_downloads/senlu.asp

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