



Aquatic Resource Delineation Report for the
Riverford Road Roundabouts Project
San Diego County, California

Prepared for
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A handwritten signature in black ink, appearing to read "AS", is positioned above the name Andrew Smisek.

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Acronyms and Abbreviations

APT	Antecedent Precipitation Tool
CDFW	California Department of Fish and Wildlife
County	County of San Diego
DPW	Department of Public Works
FAC	Facultative
FACW	Facultative-Wetland
GPS	global positioning system
NI	No Indicator
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
PIA	Project Impact Area
project	Riverford Road Roundabouts Project
RECON	RECON Environmental, Inc.
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SR-67	State Route 67
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

The County of San Diego (County), Department of Public Works (DPW) is proposing the Riverford Road Roundabouts Project (project), located within the unincorporated community of Lakeside in eastern San Diego County, at the State Route 67 (SR-67)/Riverford Road interchange, north of Interstate 8 (assessor's parcel numbers are included in Table 1; Figures 1, 2, and 3). All figures provided with this report are compiled as Attachment 1 and all tables are compiled as Attachment 2. The project area is located within the El Cajon Land Grant of the U.S. Geological Survey (USGS) 7.5-minute topographic map, El Cajon quadrangle (USGS 1994; see Figure 2). The project boundary (also referred to as Project Impact Area [PIA]) encompasses 17.64 acres and is comprised of two separate but closely-spaced intersections, one at the intersection of Woodside Avenue and Riverford Road, just south of SR-67, and one at the intersection of Riverford Road and the SR-67 southbound on- and off-ramps and North Woodside Avenue just north of SR-67 (see Figure 3). For the purposes of this report, the Review Area encompasses the proposed project boundary plus a buffer generally 100 feet in width, totaling 40.21 acres (see Figure 3). The Review Area includes portions of freeways, roadways, embankments, a Park & Ride lot, and other disturbed areas associated with developed areas surrounding the project boundary.

The County DPW staff would like to accompany the U.S. Army Corps of Engineers (USACE) on all site visits, and requests that the USACE must contact the County DPW staff prior to visiting the site. The contact information for the County is:

Property Owner: County of San Diego
Applicant: County of San Diego, Department of Public Works
Primary Contact: Jeff Kashak
Telephone: (858) 288-5740
E-mail: Jeff.Kashak@sdcounty.ca.gov

2.0 Site Alterations, Current and Past Land Use

The Review Area has undergone significant modification over time as a result of increased development. It consists primarily of developed highways and roadways, associated intersections and medians, parking lots, and commercial developments (see Figure 3). More specifically, the Review Area encompasses portions of SR-67, portions of Riverford Road, Woodside Avenue, North Woodside Avenue, and Woodside Terrace. The alignment and extent of these roadways have remained relatively unchanged over the recent decades. Undeveloped land, disturbed land, and commercial development occur north and southwest of SR-67. Disturbed land with ornamental vegetation occurs on the southern edge of SR-67 along Riverford Road, while residential developments and single-family homes are located further to the southeast and southwest, respectively.

The San Diego River, whose downstream area nearer to the Pacific Ocean is a designated Traditional Navigable Water (TNW), occurs in the northern portion of the Review Area, approximately 0.10 mile north of SR-67 southbound. The San Diego River flows east-to-west and runs underneath the Riverford Road bridge outside of the project footprint. The river appears to occur along its natural

pathway; however, the slopes on either side of the active floodplain have been manufactured as part of adjacent development. A number of culverts, brow ditches, and other stormwater structures occur in association with the developed roadways within the Review Area. Runoff from the surrounding areas generally flows through these structures and eventually into the nearby San Diego River.

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; 2023).

Four soil series—Riverwash, Tujunga sand, Visalia sandy loam, and Vista coarse sandy loam—were mapped within the Review Area (USDA 1973; see Figure 4). Riverwash is considered a hydric soil and has been mapped beneath SR-67 in the center of the Review Area as shown in Figure 4. Tujunga sand (0 to 5 percent slopes) occurs in the northern and southern portions of the Review Area. Tujunga sand, 0 to 5 percent slopes, can be a hydric soil when occurring in drainageways and floodplains (NRCS 2023). Visalia sandy loam (0 to 2 percent slopes) occurs in the southwestern corner of the Review Area and Vista coarse sandy loam (30 to 65 percent slopes) occurs along the southern edge of the Review Area. Neither of these soil types are considered hydric (NRCS 2023).

2.2 Hydrology

As mentioned above, most of the hydrology within the Review Area has been altered to collect and convey a majority of runoff through stormwater structures and into the San Diego River. The entire review area occurs within the San Diego River watershed. For instance, runoff in the southern portion of the Review Area is directed generally northward through a series of existing culverts under Woodside Avenue and under SR-67, eventually draining into the San Diego River. A shallow ditch has been constructed at the outfall of a culvert in the northeastern portion of the Review Area where water appears to pond temporarily, supporting a small patch of disturbed southern cottonwood-willow riparian forest. Additionally, a ditch occurs parallel and southeast of the SR-67 northbound offramp. This ditch appears to collect runoff from the surrounding developed roadways and undeveloped slopes, conveying water southwest along a natural-bottom channel and eventually into a culvert outside the Review Area that extends north to empty into the San Diego River. The river appears to occur along its natural pathway and contains a natural bottom. However, there is a substantial amount of trash and the banks have been manufactured to confine flow within the active floodplain. From the Review Area, the San Diego River travels generally west and southwest for approximately 20 miles and empties into the Pacific Ocean.

2.3 Vegetation

Six vegetation communities/land cover types were mapped within the Review Area: southern cottonwood-willow riparian forest, disturbed southern cottonwood-willow riparian forest, Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, disturbed land, and urban/developed land.

Figure 5 provides locations of each vegetation community/land cover type within the Review Area and Table 2 lists the vegetation communities/land cover types and their acreages within the Review Area.

Southern Cottonwood-Willow Riparian Forest

Southern cottonwood-willow riparian forest is characterized by tall, open, broad-leaved winter-deciduous riparian forests dominated by native cottonwoods and willows along rivers and streams (Oberbauer et al. 2008). This habitat occurs in the north and northwestern portions of the Review Area (Photograph 1). All photographs are comprised as Attachment 3. This vegetation community is dominated by Fremont cottonwood (*Populus fremontii* ssp. *fremontii*) and Goodding's black willow (*Salix gooddingii*), with an understory dominated by mule fat (*Baccharis salicifolia* ssp. *salicifolia*), desert wild grape (*Vitis girdiana*), and stickywilly (*Galium aparine*).

Disturbed Southern Cottonwood-Willow Riparian Forest

Disturbed southern cottonwood-willow riparian forest habitat occurs in the north and northeast portions of the Review Area (Photograph 2). This vegetation community is dominated by Fremont cottonwood and mule fat, but contains non-native saltcedar (*Tamarix ramosissima*), with an understory dominated by non-native grasses.

Diegan Coastal Sage Scrub

Diegan coastal sage scrub consists of low, soft-woody subshrubs that are most active in winter and early spring, typically on low moisture-availability sites (Oberbauer et al. 2008). This habitat occurs along the southern border of the Review Area, south of Woodside Avenue (Photograph 3) and along the northern border of the Review Area, north of North Woodside Avenue. This vegetation community is dominated by California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*), with intermixed non-native grasses present in the herb layer.

Disturbed Diegan Coastal Sage Scrub

Disturbed Diegan coastal sage scrub habitat occurs as small patches in the northern, northwestern, and southern portions of the Review Area, along Woodside Avenue and North Woodside Avenue (Photograph 4). This vegetation community is dominated by California sagebrush and California buckwheat, but these native shrubs occur at a lower density than that of the undisturbed form of Diegan coastal sage scrub described above. Additionally, this disturbed form supports a higher cover of non-native grasses, including rattail sixweeks grass (*Festuca myuros*).

Disturbed Habitat

Disturbed habitat consists of areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate (Oberbauer et al. 2008). This habitat occurs along developed roadways and in highway medians in the central and southern portions of the Review Area (Photograph 5). This vegetation community is dominated by non-native grasses, smooth cat's-ear (*Hypochaeris glabra*), and Italian thistle (*Carduus pycnocephalus*) occurring in the median south of SR-67.

Urban/Developed

Urban/developed consists of areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported (Oberbauer et al. 2008). Urban/developed occurs as the dominant land cover type within the Review Area (Photograph 6). Urban/developed includes paved roads and highways, such as SR-67, Riverford Road, Woodside Avenue, North Woodside Avenue, and Woodside Terrace, as well as residences, commercial developments, and associated ornamental vegetation (Figure 6 and Photograph 6).

3.0 Precipitation Data and Analysis

Climate data, including precipitation totals, was gathered from the NRCS National Water and Climate Center databases using the Antecedent Precipitation Tool (APT). This climate data, and the weather stations from which it was obtained, is presented in Attachment 4. Details regarding climate data for the project site are discussed below.

3.1 Climate and Growing Season

The project is located within an inland valley of southern California, in an area generally 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 early summer after winter and spring rainfall and ends in mid to late summer when little to no precipitation occurs and as temperatures increase. Rainfall amounts can vary substantially from year to year, with the potential for periods of extended drought.

3.2 Antecedent Precipitation Tool Summary

The 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 4) indicate that wetter than normal conditions occurred at the time of the September 12, 2023 survey.

3.3 Wetland Hydrology and Analysis

Hydrology within the Review Area consists of the San Diego River, which supports a perennial flow regime. Other hydrology features include the natural-bottom channel within the ditch that runs parallel and southeast of the SR-67 northbound offramp in the southwestern portion of the Review Area, as well as the ditch in the northeastern portion of the Review Area that supports temporary ponding and the various concrete brow ditch and stormwater culvert features associated with the developed roadways. The channel in the southwestern portion of the Review Area appears to support an ephemeral flow regime.

According to the results of the APT, one substantial rain event occurred within the 30-day period prior to the September 12, 2023, survey. The event was the result of landfall of tropical storm Hilary that produced approximately two inches of rain in the vicinity of the project about 3.5 weeks prior to the survey. As a result, conditions were considered “wetter than normal” for this time of year; however, the majority of the runoff from that event is expected to have ceased by the time the survey was conducted. 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

An aquatic resources delineation, following the guidelines set forth by USACE, including the *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (2008), was performed by RECON Environmental, Inc. (RECON) biologists Andrew Smisek and Julia Gaudio on September 12, 2023, within the Review Area to gather field data at locations where aquatic resources occur. Once on-site, the potential federal and state jurisdictional areas were examined to determine the presence and extent of any aquatic resources. Figure 5 depicts the location of each sample point within the Review Area. The results of this investigation can be found in Section 5.0.

4.1 Wetland Parameters

4.1.1 Hydrophytic Vegetation

Vegetation communities comprising partially or entirely 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.

First, the wetland indicator status of each species recorded within a vegetation community was determined by using the National Wetland Plant List (USACE 2020). Dominant species considered to have an indicator status of NI (No Indicator) because they are 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 sample point. In situations where a site failed the dominance test but contained positive indicators of hydric soils and/or wetland hydrology, the prevalence index was used. 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 vegetation and topography (see Figure 5). A total of seven soil pits were dug to a depth of at least 18 inches (except where restrictive layers were encountered) to determine soil color, evidence of soil saturation, depth to groundwater, and indicators of a reduced 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 and recent topographic survey data 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). The results of this investigation can be found in Section 5.0.

4.2 Pre-Field Review

Prior to conducting the delineation, aerial photographs between 1994 and 2023 (Google 2023), USGS topographic maps of the site, including the 7.5-minute El Cajon quadrangle (USGS 1994; see Figure 2), USDA soil maps of the site, and the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) (U.S. Fish and Wildlife Service 2023; see Figure 6) were examined to aid in the determination of potential aquatic resources 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 potential jurisdictional waters created using these data were analyzed in ArcGIS to provide acreages or target potential jurisdictional and vegetation boundaries. USACE wetland determination data forms are included as Attachment 5 and photographs of the Review Areas are provided in Attachment 3. Descriptions of the potential wetland vegetation communities sampled are provided below.

The Review Area supports hydrophytic vegetation within the disturbed and undisturbed forms of southern cottonwood-willow riparian forest, which occur in the northern portion of the Review Area along the San Diego River and as a small patch south of the river in the northeastern portion of the Review Area (see Figure 5). Small patches of hydrophytic vegetation also occur in areas mapped as disturbed Diegan coastal sage scrub that support a predominance of the non-native Mexican palo verde (*Parkinsonia aculeata*; Facultative [FAC]), occurring in the central portion of the Review Area

(see WET 1 sample point on Figure 5). Southern cottonwood-willow riparian forest, dominated by Fremont cottonwood (NI, but assigned indicator of FAC based on local professional knowledge), Goodding's black willow (Facultative-wetland [FACW]), mule fat (FAC), and desert wild grape (FAC), is the most abundant vegetation community within the active floodplain of the San Diego River (see Photograph 1).

Within the northwestern portion of the Review Area, the floodplain of the San Diego River contains undulating topography that has resulted in a floodplain swale that was found to support standing water at the time of the survey. This long and narrow swale feature supports southern cottonwood-willow riparian forest like the surrounding areas that are slightly elevated above this swale. A small patch of the disturbed form of this habitat occurs approximately 120 feet south of the river, on the other side of an elevated and graded berm. This disturbed form supports one large Fremont cottonwood (FAC), scattered saltcedar (FAC), and a shrub layer dominated by mule fat (FAC; Photograph 7).

The remaining areas mapped as disturbed habitat, as well as areas of disturbed and undisturbed Diegan coastal sage scrub and urban/developed land, do not support a predominance of hydrophytic plant species. The areas are dominated by native upland shrubs and/or non-native upland grasses, with the urban/developed areas mostly lacking vegetation.

4.4 On-site Ordinary High Water Mark Investigation

The lateral extent of the ordinary high water mark (OHWM) was delineated along the on-site drainages, including the San Diego River and a small channel in the southwestern portion of the Review Area, 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 sample locations are depicted on Figure 5 and the OHWM data forms are included as Attachment 6. Indicators observed and used to determine the extent of the OHWM include change in average sediment texture, change in vegetation species and cover, a break in bank slope, and ancillary indicators, such as wracking and water staining (Photograph 8). The distribution and abundance of observed indicators varied between those within the San Diego River active floodplain and those along the small channel in the southwestern portion of the Review Area. The river supports a diverse suite of OHWM indicators that were abundant and consistent throughout the active floodplain (see Attachment 6: OHWM sheet #2). The river contained flowing water within the observed low-flow channel at the time of the survey (Photograph 9). While the small channel contained fewer indicators, those observed were consistent throughout, including a break in slope, change in sediment texture, and wracking, resulting in a consistently observed OHWM (Photograph 10; see Attachment 6: OHWM sheet #1).

5.0 Description of Aquatic Resources

The aquatic resources delineated occur within the active floodplain of the San Diego River in the northern portion of the Review Area, which supports wetland areas mapped as southern cottonwood-willow riparian forest as well as a small portion of non-wetland waters that does not support hydrophytic vegetation but occurs within the extent of the OHWM. The wetland areas have

been mapped to the extent of hydrology and hydric soil indicators. Where portions of the hydrophytic vegetation canopy extend outside of those indicators, this habitat has been mapped as riparian, but not as wetlands. Additionally, a patch of disturbed southern cottonwood-willow riparian forest outside of the active floodplain of the river has been mapped as riparian. The small channel in the southwestern portion of the Review Area has been mapped as non-wetland waters at the lateral extent of the observed OHWM. These wetland, riparian, and non-wetland aquatic resources total 3.43 acres and 410 linear feet within the Review Area. A summary of the aquatic resources and their location within the Review Area are provided in Table 3 and on Figure 7, respectively.

5.1 Wetlands

The delineated wetlands include the areas mapped as southern cottonwood-willow riparian forest located within the active floodplain of the San Diego River in the northern portion of the Review Area, totaling 1.96 acres (see Figure 7 and Table 3). Wetlands here were mapped to the extent of the areas meeting all three wetland criteria, which mostly coincides with the extent of the OHWM in the vicinity of the Riverford Road bridge. However, as described below, a small area within the OHWM does not support hydrophytic vegetation and, therefore, has been mapped as non-wetland waters. In the northwestern portion of the Review Area, a swale occurs within the broader river floodplain and supports wetlands. This wetland swale occurs southeast of the active floodplain of the river, which is situated to the north outside of the Review Area. Aside from meeting the hydrophytic vegetation standard, as described in Section 4.3 above, the delineated wetlands also met the hydric soil and wetland hydrology standards (see Attachment 5: Datasheets 4 and 5). Specifically, the wetlands met the black histic and sandy redox hydric soil indicators (Photograph 11) and contained the following wetland hydrology indicators: surface water, saturation, non-riverine sediment deposits, non-riverine drift deposits, oxidized rhizospheres along living roots, drainage patterns, and the FAC-Neutral Test.

5.2 Non-wetland Waters

As described above, non-wetland waters were delineated within the unvegetated portions of the active floodplain of the San Diego River in the north-central portion of the Review Area (see Figure 7). The area of non-wetland waters within the river includes a small portion mapped as disturbed habitat but occurring within the OHWM. As mentioned above, the river appears to occur along its natural path. Most of the active floodplain of the San Diego River, mapped at the OHWM, contains hydrophytic vegetation and meets the three wetland criteria. Therefore, these areas have been mapped as wetlands rather than non-wetland waters. The San Diego River appears to support a perennial flow regime.

Non-wetland waters were delineated along the extent of the small channel in the southwestern portion of the Review Area (see Figure 7). This feature also occurs in an area mapped as disturbed habitat and occurs along the bottom of a manufactured ditch between a slope leading up to the SR-67 northbound offramp and a developed asphalt lot (see Figure 7). The small southwestern channel does not support any hydrophytic vegetation and, therefore, does not support any wetlands. The extent of the mapped non-wetland waters was delineated at the OHWM, which coincides with a break in slope, a change in vegetation and sediment composition, and other OHWM indicators

mentioned in Section 4.4 above. The small southwestern channel feature appears to support an ephemeral flow regime. Together, the non-wetland waters within the San Diego River and within the small channel total 0.16 acre and 410 linear feet within the Review Area (see Figure 7 and Table 3).

5.3 Riparian

Areas mapped as riparian total 1.31 acres and include all portions of the Review Area mapped as southern cottonwood-willow riparian forest and a patch of disturbed southern cottonwood-willow riparian forest outside the extent of the wetland and non-wetland waters mentioned above (see Figure 7). As discussed in Section 4.3, these areas are characterized by Fremont cottonwood, Goodding's black willow, and saltcedar, with an understory dominated by mule fat, desert wild grape, and stickywilly. Because these areas occur adjacent to the active floodplain of the San Diego River, they likely have ecological connections to this feature. However, the riparian areas lack the hydrology and hydric soil indicators required to meet the USACE definition of a wetland.

6.0 Deviation from National Wetland Inventory

The results of this analysis vary from those classified in the NWI (see Figure 6). The NWI mapping does not include the small channel in the southwestern portion of the Review Area or the small patch of riparian mapped as disturbed southern cottonwood-willow riparian forest in the northeastern portion of the Review Area. Along the San Diego River corridor, the NWI includes mapping of mostly freshwater forested/shrub wetland, as well as freshwater emergent wetland mapped within the northern portion of the Review Area. The mapping of freshwater forested/shrub wetland is consistent with what was observed onsite, aside from the NWI showing a narrower wetland corridor compared to the observed onsite conditions.

7.0 Mapping Method

The maps of the delineated aquatic resources within the Review Area are based on the above analysis (see Figure 7). The boundary of most of the aquatic resources 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 Results and Conclusions

Wetlands, non-wetland waters, and riparian aquatic resources were delineated within the Review Area and include all areas mapped as southern cottonwood-willow riparian forest and disturbed southern cottonwood-willow riparian forest, as well as a small channel occurring within an area mapped as disturbed habitat. These features total 3.43 acres.

9.0 Disclaimer Statement

This report describes the results of an aquatic resource delineation conducted within the approximately 40.21-acre Review Area. 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 federal jurisdictional waters of the U.S. 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 USACE, Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) in making a jurisdictional determination. Those agencies will review the content of this report and ultimately make a determination of their jurisdiction for any waters of the U.S. and/or waters of the state that may be present in the Review Area. References used in the preparation of this report are included below in Attachment 7. A discussion about the potential jurisdictional limits of the USACE, RWQCB, and CDFW is included in Section 10 below.

10.0 Potential Jurisdictional Resources

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.

10.1 Potential USACE Waters of the U.S.

Under the Clean Water Act Section 404, the USACE is authorized to regulate waters of the U.S. The currently accepted regulations defining waters of the U.S. follow the September 8, 2023, publishing of the final U.S. Environmental Protection Agency (U.S. EPA) rule: *Revised Definition of "Waters of the U.S.", Conforming*. Notably, this new rule provides a new interpretation of the term "adjacent" whereas wetlands must contain a surface hydrologic connection to other waters of the U.S. to be considered adjacent waters of the U.S. Additionally, this new rule eliminates the applicability of the significant nexus standard for "non-relatively permanent waters", so any ephemeral features are no longer likely to be considered waters of the U.S.; however, waters with at least intermittent flow regimes may still be considered Waters of the U.S.

Within the Review Area, under the revised U.S. EPA rule, the areas of potential waters of the U.S. include the wetlands shown in Figure 7, as well as the small portion of the active floodplain of the San Diego River mapped as non-wetland waters. As described in Section 5.0 above, the wetlands and non-wetland waters within the San Diego River occur within the active floodplain, delineated at the extent of the OHWM. The areas mapped as wetlands contain sufficient cover of hydrophytic vegetation, being mapped as southern cottonwood-willow riparian forest dominated by Fremont cottonwood and Goodding's black willow. These areas meet the three wetland parameters for hydrophytic vegetation, hydric soils, and hydrology and, as discussed below, would likely be considered wetland waters of the U.S. The small portion of non-wetland waters within the San Diego River includes those areas within the OHWM that are primarily unvegetated. These areas do not meet the wetland criteria and are mapped as disturbed habitat in Figure 5. As discussed below, they would likely be considered non-wetland waters of the U.S.

The portion of the San Diego River within the Review Area supports a perennial flow regime and, as such, would be considered a “relatively permanent water” under the revised definition of Waters of the U.S. Additionally, this portion of the river has downstream connectivity to portions of the San Diego River that are considered a TNW (USACE 2023). Therefore, the wetland and non-wetland waters within the San Diego River corridor in the northern portion of the Review Area meet the definition of waters of the U.S. and would likely be under the jurisdiction of the USACE, totaling 2.08 acres and 110 linear feet (Figure 8 and Table 4). As discussed in Section 11 below, these potentially jurisdictional resources are limited to underneath and adjacent to the bridge outside of any works areas and thus would not be impacted by the project.

The small channel in the southwestern portion of the Review Area occurs outside the of the PIA, appears to support an ephemeral flow regime, and would be considered a “non-relatively permanent water.” Although it has connectivity to the San Diego River, the lack of at least intermittent flow would likely preclude it from being considered waters of the U.S. As mentioned above, the areas mapped as riparian lack hydric soil and wetland hydrology indicators to be considered a wetland and, therefore, riparian areas would not be considered waters of the U.S.

10.2 Potential RWQCB Waters of the State

The RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes all waters of the state and all waters of the U.S. as mandated by Section 401 in the Clean Water Act and the California Porter-Cologne Water Quality Control Act. The California Water Code defines “waters of the state” broadly to include “any surface water or groundwater, including saline waters, within the boundaries of the state.” Under the new State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, revised on April 6, 2021 by the State Water Resources Control Board, state wetlands are defined as, “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.” This new procedure and wetland definition also clarifies that waters of the state include any historic definition of waters of the U.S., which may include those features newly excluded from the new waters of the U.S. definition.

All waters of the U.S. described above, within the Review Area, fall within the Clean Waters Act Section 401 authority of the RWQCB and would likely be considered waters of the state. Additionally, the small channel in the southwestern portion of the Review Area, which occurs outside of the PIA, may have been historically considered waters of the U.S. prior to the new rule. As such, it would likely be considered non-wetland waters of the state under RWQCB jurisdiction. The areas of potential RWQCB waters of the state total 2.12 acres and 410 linear feet (see Figure 8 and Table 4). The areas of riparian are unlikely to be considered jurisdictional under the RWQCB because they do not meet the definition of “wetland” per the new *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Water Resources Control Board 2021).

10.3 Potential CDFW Jurisdictional Resources

Under Sections 1600–1607 of the California 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 those RWQCB wetland and non-wetland waters of the state described above. These areas would likely be considered CDFW Riparian and CDFW Streambed, respectively.

In addition, the extent of riparian areas depicted in Figure 7 would likely be considered CDFW Riparian. These areas are comprised of southern cottonwood-willow riparian forest adjacent to the active floodplain of the San Diego River and disturbed southern cottonwood-willow riparian forest occurring approximately 120 feet south of the river corridor. Although this small patch of riparian is not directly adjacent to the river, it occurs in the natural valley bottom of the broader historic floodplain of the San Diego River and likely shares subsurface connectivity. Therefore, it can be considered as riparian habitat associated with the San Diego River watercourse. The extent of riparian habitats associated with watercourses that would likely be considered CDFW Riparian and Streambed within the Review Area totals 3.43 acres and 410 linear feet (see Figure 8 and Table 4).

11.0 Impacts to Potential Jurisdictional Resources

This section provides a summary of the project's impacts to on-site aquatic resources with potential to be considered waters under the jurisdiction of three agencies: USACE, RWQCB, and CDFW. As described above, the Review Area includes the 17.64-acre PIA plus a 100-foot buffer. This section discusses the aquatic resources that occur within the PIA only and whether they will be impacted by the proposed project. The project would construct roundabouts at two intersections, which would be widened to accommodate these improvements. The project would also construct crosswalks and shared-use pathways, as well as relocate necessary public utilities. Permanent impacts would occur as a result of the construction of these permanent structures and temporary impacts would result from project-related temporary vegetation removal or trampling, access, and staging of equipment.

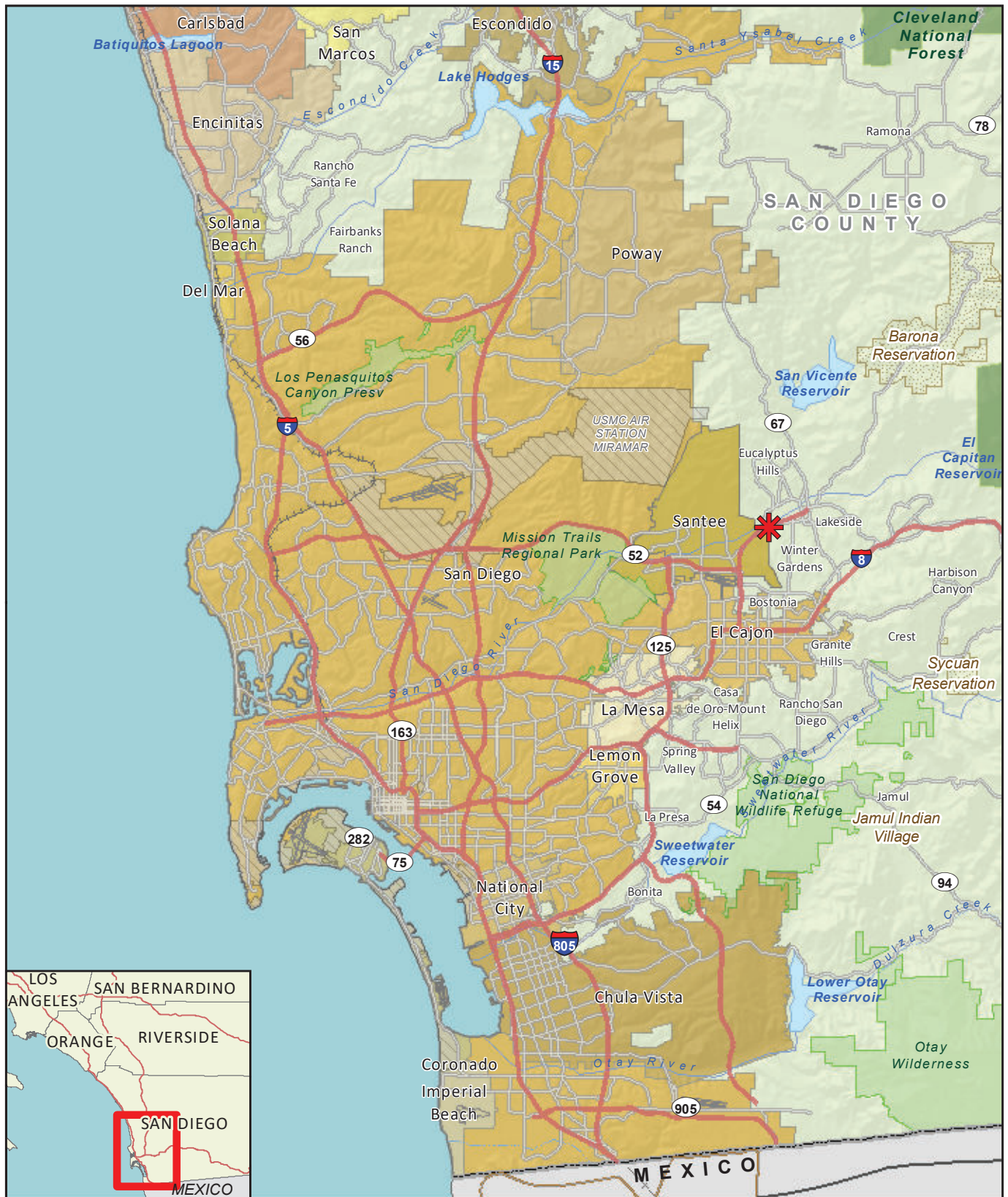
Figure 9 depicts the project's permanent and temporary impact boundaries based on the currently proposed project plans and Table 5 summarizes the areas where temporary and permanent impact areas overlap with the mapped aquatic resources. It should be noted that the area of temporary impacts along the Riverford Road bridge would only include construction activities along the surface of the bridge and no impacts would occur to the aquatic resources occurring below the bridge.

The proposed project would result in permanent impacts to 0.04 acre of potential CDFW Riparian and temporary impacts to 0.04 acre of potential CDFW Riparian (see Figure 9 and Table 5). No direct impacts would occur to potential USACE/RWQCB Wetland or Non-wetland Waters of the U.S./State as the work along the Riverford Road bridge would not result in direct impacts to the aquatic resources within the San Diego River below and the project would avoid direct impacts to all other onsite aquatic resource areas.

ATTACHMENTS

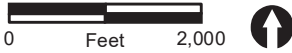
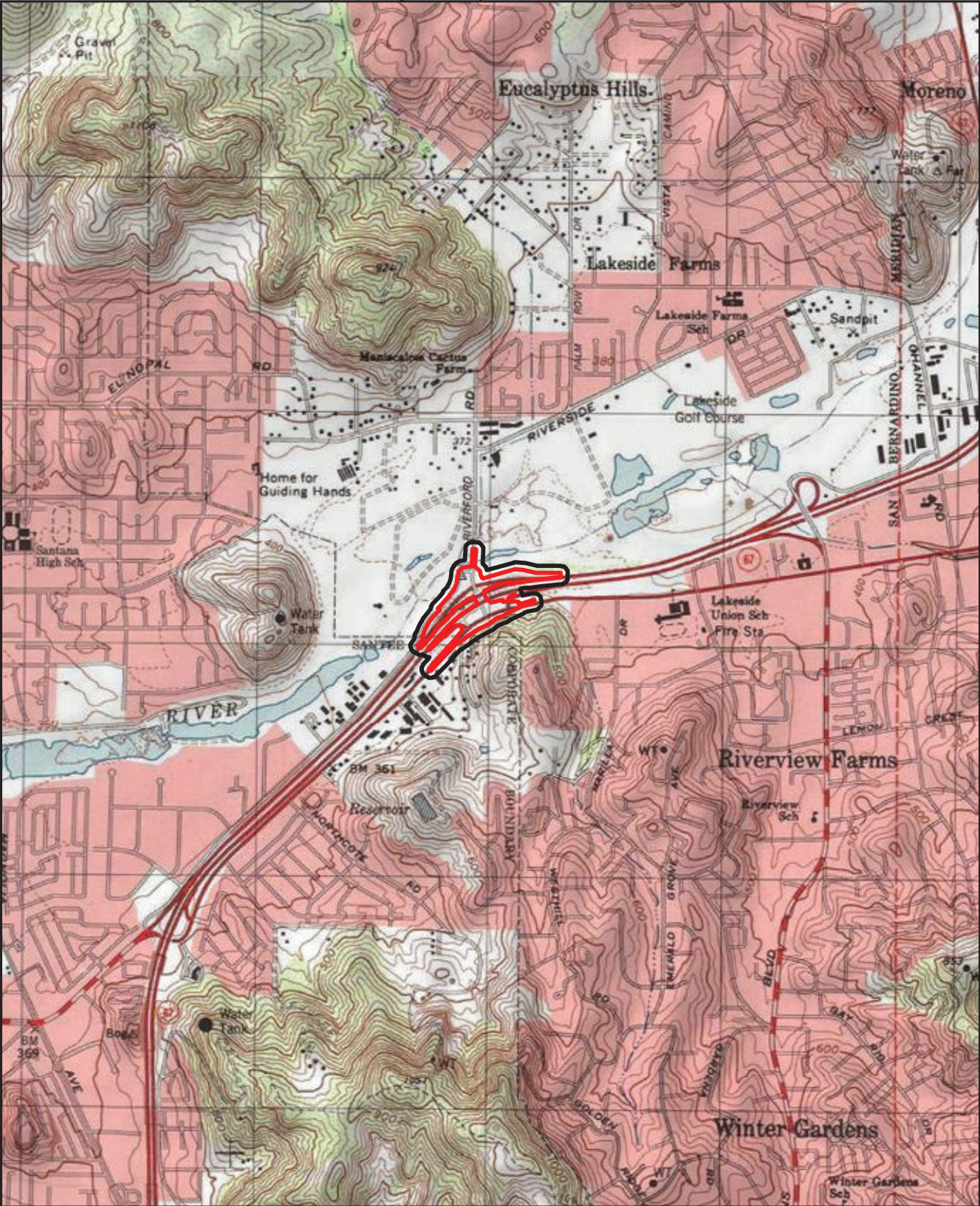
ATTACHMENT 1

Maps



 Project Location

FIGURE 1
Regional Location



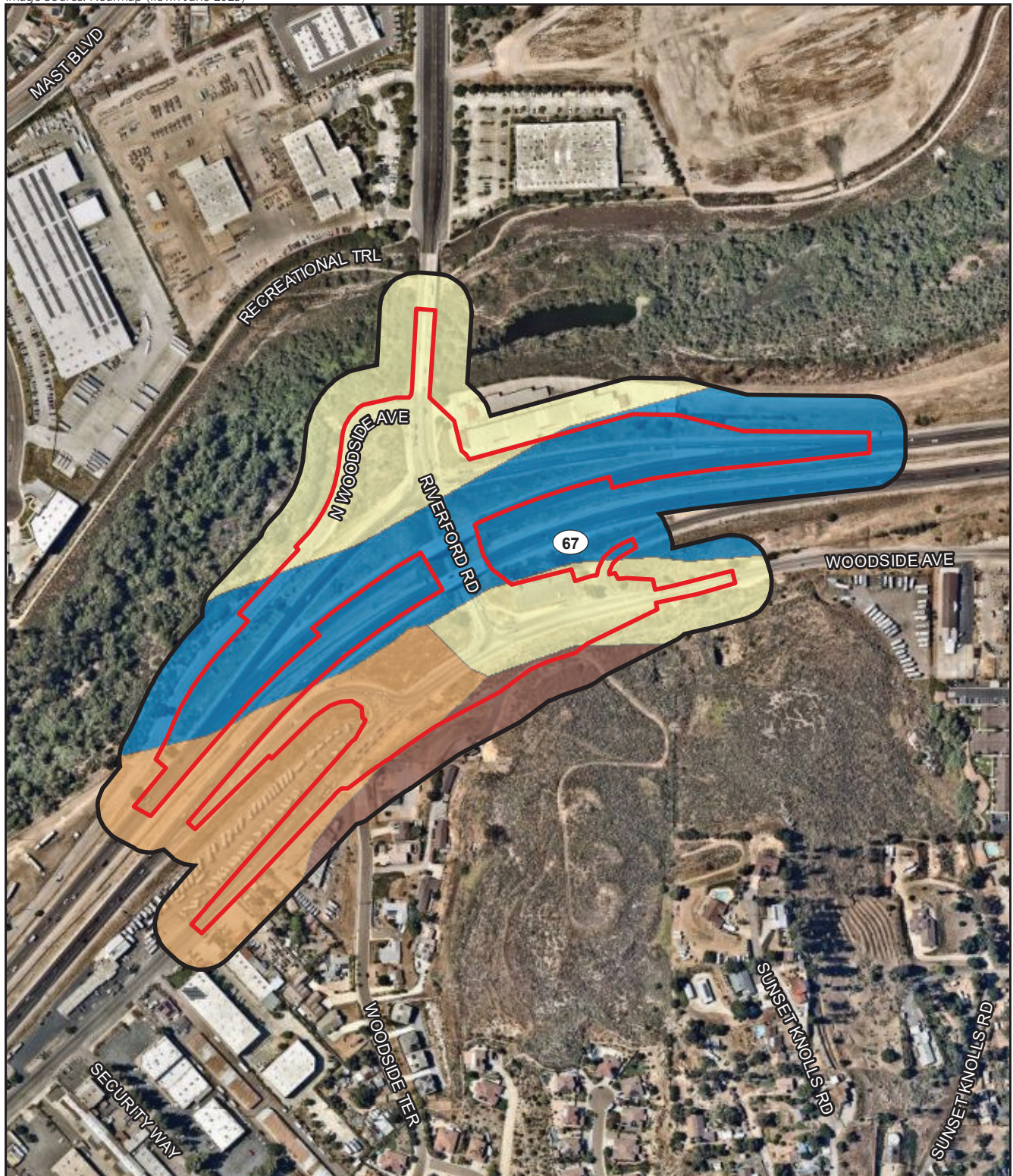
-  Project Boundary
-  Review Area

FIGURE 2
Project Location on USGS Topo



FIGURE 3

Project Location on Aerial Photograph



 Project Boundary **Soils**

 Review Area

Riverwash

Tujunga Sand, 0 to 5 Percent Slopes

Visalia Sandy Loam, 0 to 2 Percent Slopes

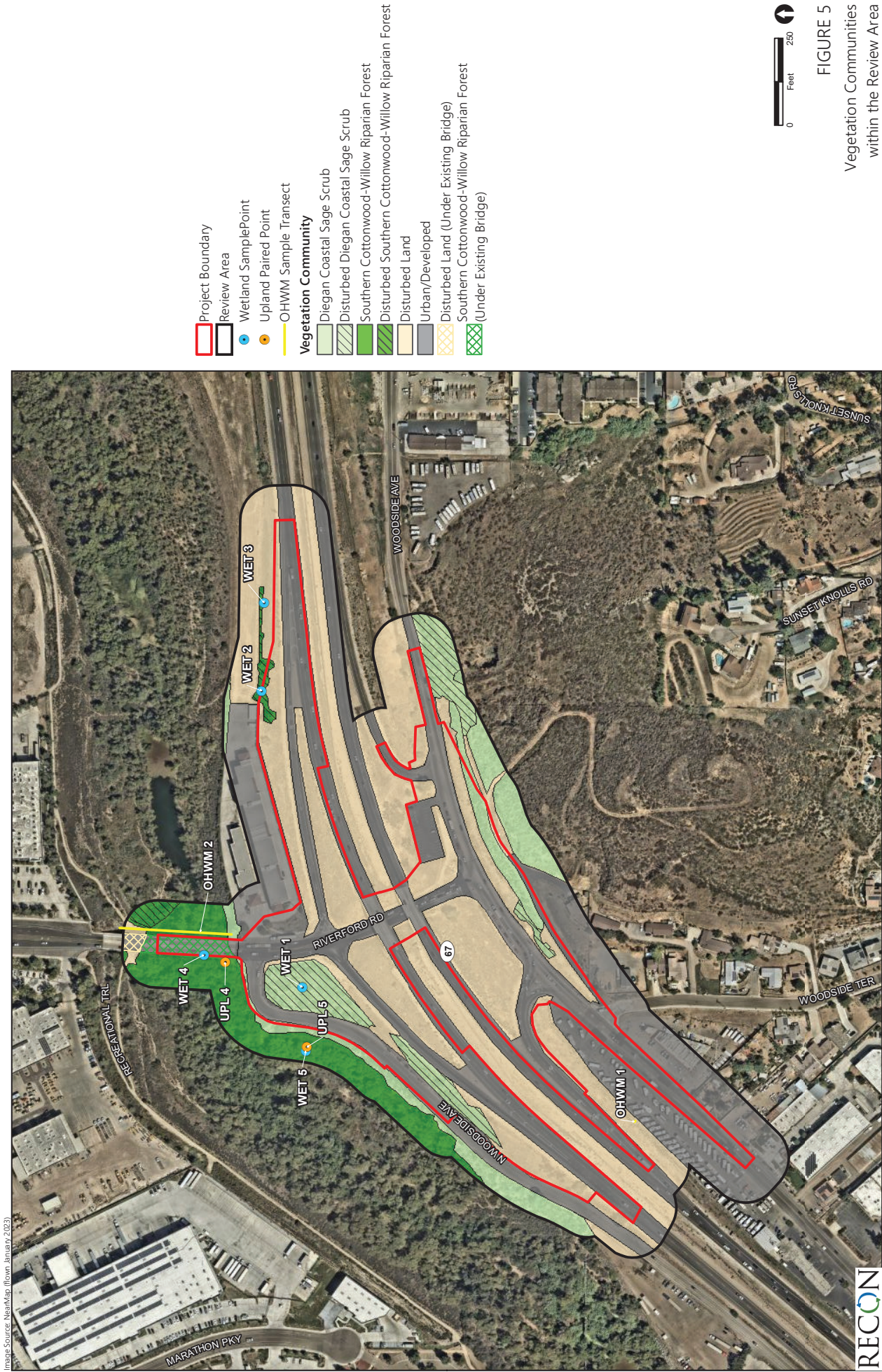
Vista Coarse Sandy Loam, 30 to 65 Percent Slopes

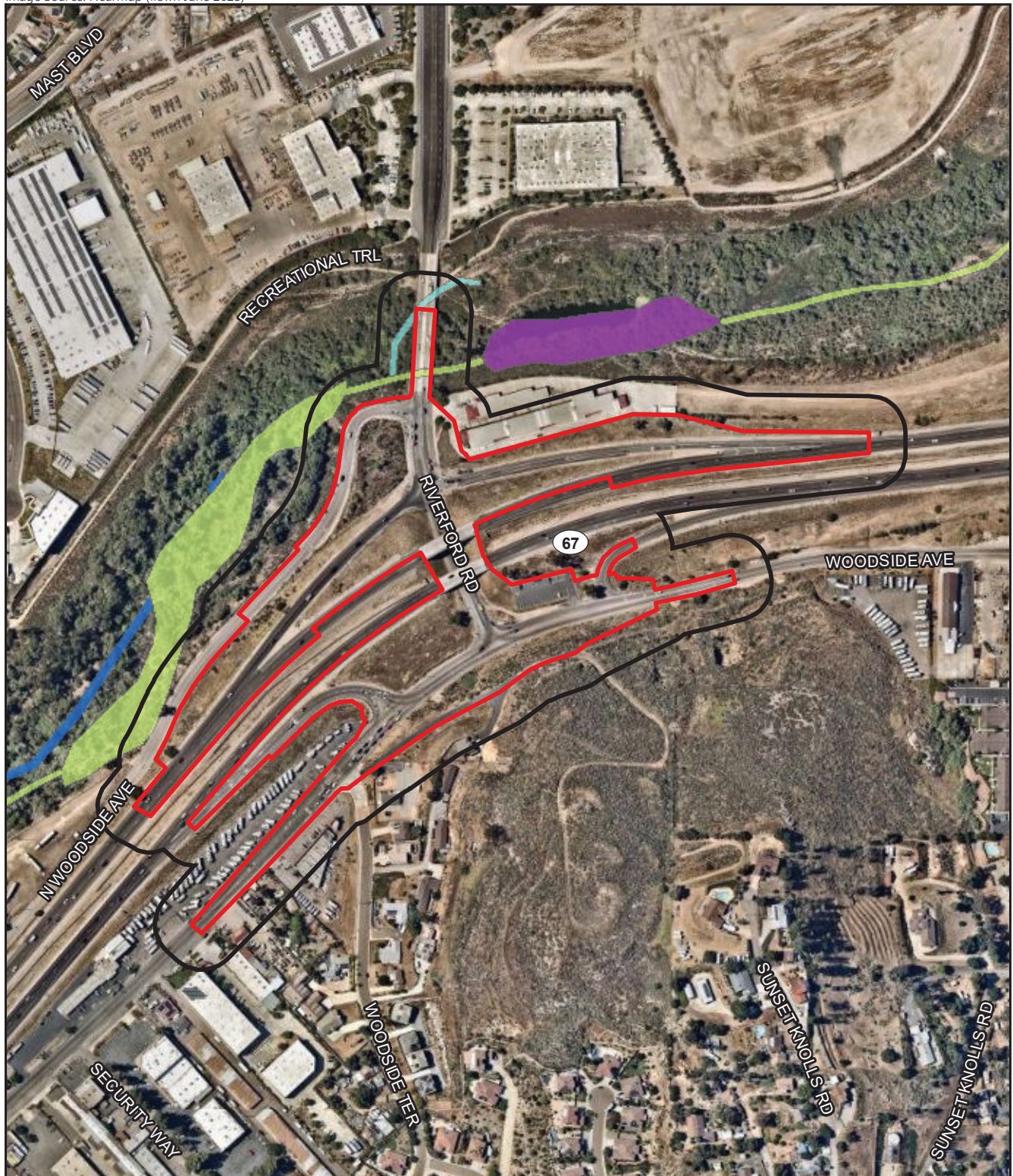
0 Feet 400



FIGURE 4

Soils Within the Biological Study Area





- | | |
|---|---|
| Project Boundary | National Wetland Inventory |
| Review Area | Freshwater Emergent Wetland |
| | Freshwater Forested/Shrub Wetland |
| | Freshwater Pond |
| | Riverine |

0 Feet 400



FIGURE 6
National Wetland Inventory

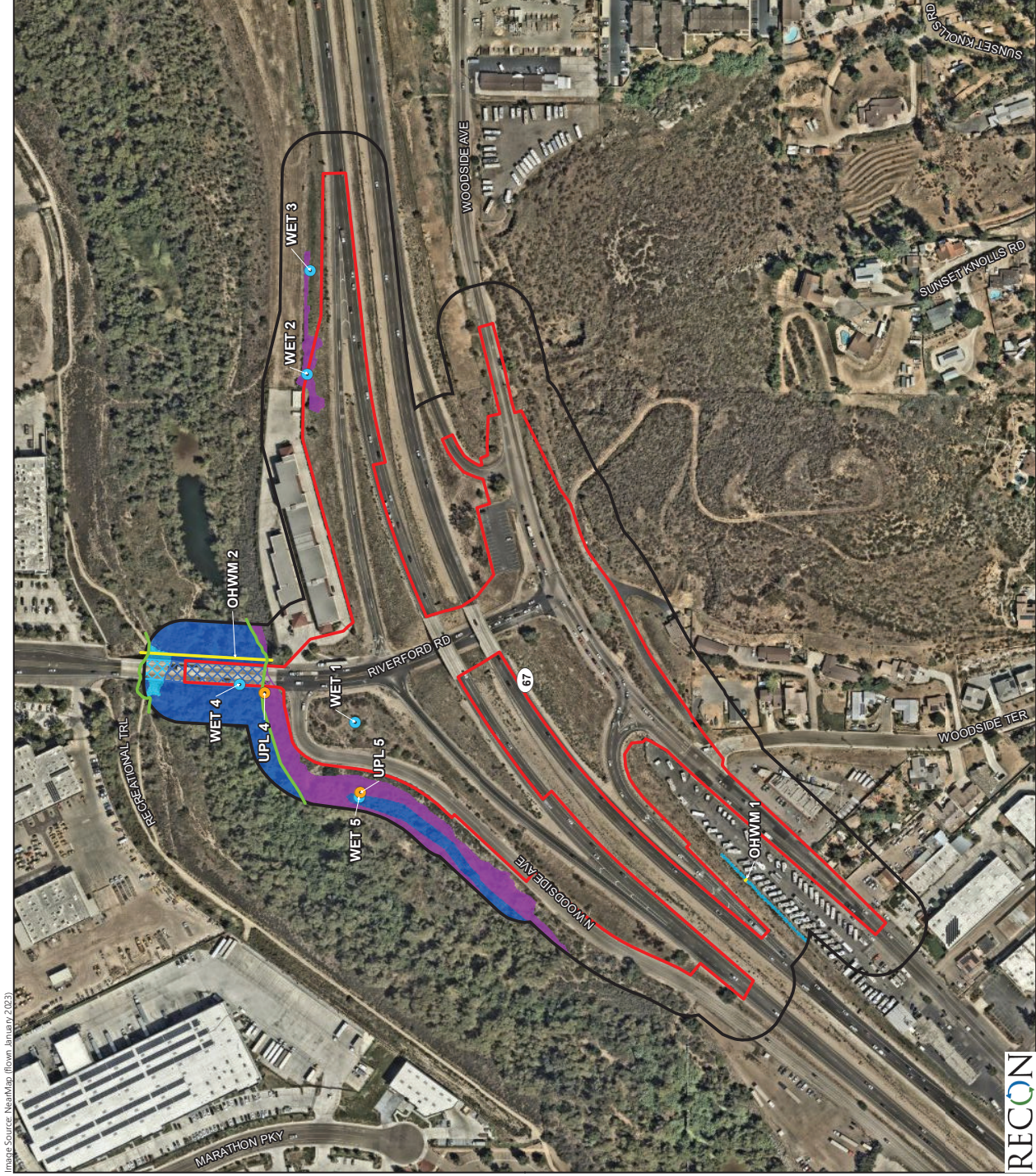
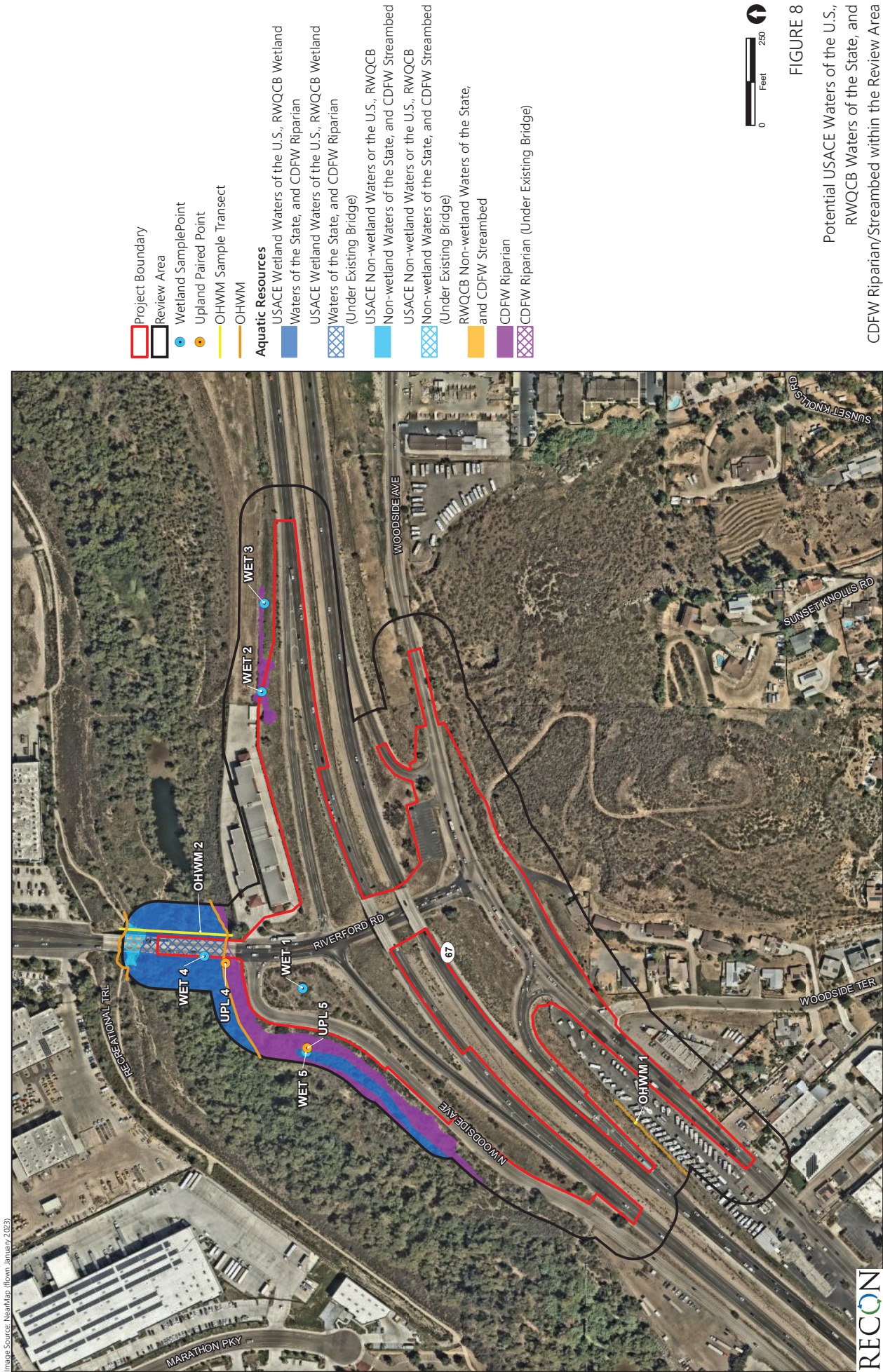
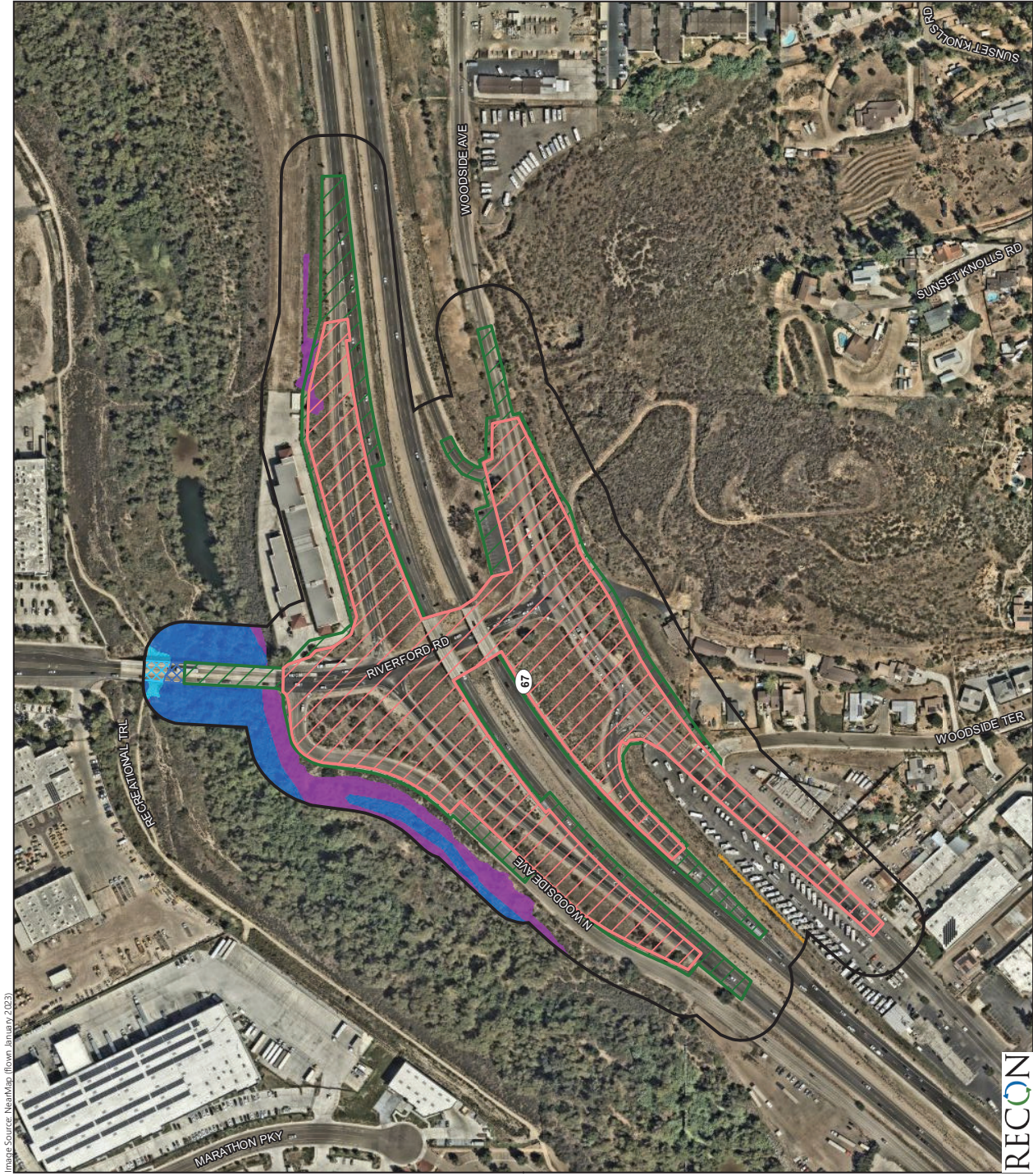


FIGURE 7
Aquatic Resources Delineated
within the Review Area







- Review Area
- Permanent Impacts
- Temporary Impacts
- Aquatic Resources**
- USACE Wetland Waters of the U.S., RWQCB Wetland Waters of the State, and CDFW Riparian
- USACE Wetland Waters of the U.S., RWQCB Wetland Waters of the State, and CDFW Riparian (Under Existing Bridge)
- USACE Non-wetland Waters of the U.S., RWQCB Non-wetland Waters of the State, and CDFW Streambed (Under Existing Bridge)
- USACE Non-wetland Waters of the U.S., RWQCB Non-wetland Waters of the State, and CDFW Streambed (Under Existing Bridge)
- RWQCB Non-wetland Waters of the State, and CDFW Streambed
- CDFW Riparian

0 250 Feet

FIGURE 9
Impacts to Potentially Jurisdictional Resources

ATTACHMENT 2

Tables

Table 1 Assessor's Parcel Numbers within the Review Area		
3823103100*	3822104300	3823101200*
3822100100*	3822601400*	3823103200*
7601417500*	3822601100*	3823100300*
3811705700*	3820112500*	3823102400*
3790103200	3811706400*	3790104600
3823100200*	3811710700*	3823105300
3790103000	3822104400*	3823104300*
3822601000*	3822102700	3823104400*
3822102600	3820112600	3823105400
*Parcel includes portions of the Review Area only and does not include the project impact area.		

Table 2 Vegetation Communities/Land Cover Types	
Community or Type (Holland [1986] Code as modified by Oberbauer [2008])	Area within Review Areas (acres)
Southern Cottonwood-Willow Riparian Forest (61330)	2.93 ¹
Disturbed Southern Cottonwood-Willow Riparian Forest (61330)	0.33
Diegan Coastal Sage Scrub (32500)	2.47
Disturbed Diegan Coastal Sage Scrub (32500)	1.85
Disturbed Land (11000)	14.21 ¹
Urban/Developed (12000)	18.42
TOTAL	40.21
¹ 0.30 acre of southern cottonwood-willow riparian forest and 0.07 acre of disturbed land is located below the urban/developed Riverford Road bridge. These acreages are included in the southern cottonwood-willow riparian forest and disturbed land totals, respectively.	

Table 3

List of Aquatic Resources

Waters ID	Cowardin Code	HGM Code	Area (acre)	Linear Feet	Waters Type	Latitude (dd NAD83)	Longitude (dd NAD83)	Local Waterway	Dominant Vegetation
Wetland – San Diego River Channel	PFO	Riverine	1.64	N/A	RPW	32.8565152	-116.9475731	Riverine	<i>Salix gooddingii</i> , <i>Populus fremontii</i> ssp. <i>fremontii</i> , <i>Baccharis salicifolia</i> ssp. <i>salicifolia</i> , <i>Vitis girdiana</i>
Wetland – San Diego River Swale	PFO	Riverine	0.31	N/A	RPWWD	32.8546225	-116.9492042	Riverine	<i>Salix gooddingii</i> , <i>Populus fremontii</i> ssp. <i>fremontii</i>
Non-wetland Waters – San Diego River Channel	R2	Riverine	0.13	110	RPW	32.8569039	-116.9472317	Riverine	unvegetated
Non-wetland Waters – Southwestern Channel	R6	Riverine	0.04	300	NRPW	32.8530505	-116.9489242	Riverine	unvegetated
Riparian – San Diego River Channel	RP1FO	Riverine	1.14	N/A	Riparian	32.8558407	-116.9483028	Riverine	<i>Salix gooddingii</i> , <i>Populus fremontii</i> ssp. <i>fremontii</i> , <i>Baccharis salicifolia</i> ssp. <i>salicifolia</i> , <i>Vitis girdiana</i>
Riparian – Northeastern Patch	RP1	Riverine	0.17	N/A	Riparian	32.8559618	-116.9447638	Riverine	<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i> , <i>Tamarix ramosissima</i>

PFO = Forested, Palustrine; R2 = Lower Perennial, Riverine; R6 = Ephemeral, Riverine; RP1FO = Forested, Lotic, Riparian; RP1 = Lotic, Riparian; HGM = hydrogeomorphic; RPW = Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs; RPWWD = Wetlands directly abutting RPWs that flow directly or indirectly into TNWs; NRPW = Non-relatively Permanent Waters that flow directly or indirectly into Traditional Navigable Waters

Table 4 Potential Jurisdictional Resources within Review Area	
Jurisdictional Resource	Acreage in Review Area (linear feet)
USACE Waters of the U.S.	2.08¹ (110)
Wetland Waters of the U.S.	1.96
Non-wetland Waters of the U.S.	0.13 (110)
RWQCB Waters of the State	2.12 (410)
Wetland Waters of the State	1.96
Non-wetland Waters of the State	0.16 (410)
CDFW Jurisdictional Resources	3.43 (410)
Riparian	3.27
Streambed	0.16 (410)
¹ Any discrepancies in totals are due to rounding.	

Table 5 Project Impacts to Potential Jurisdictional Resources			
Jurisdictional Resource	Acreage in Review Area (linear feet)	Acreage of Temporary Impacts	Acreage of Permanent Impacts
USACE Waters of the U.S.	2.08¹ (110)	0.00	0.00
Wetland Waters of the U.S.	1.96	0.00	0.00
Non-wetland Waters of the U.S.	0.13 (110)	0.00	0.00
RWQCB Waters of the State	2.12 (410)	0.00	0.00
Wetland Waters of the State	1.96	0.00	0.00
Non-wetland Waters of the State	0.16 (410)	0.00	0.00
CDFW Jurisdictional Resources	3.43 (410)	0.04	0.04
Riparian	3.27	0.04	0.04
Streambed	0.16 (410)	0.00	0.00
¹ Any discrepancies in totals are due to rounding.			

ATTACHMENT 3

Ground Level Color Photographs



PHOTOGRAPH 1

View of Southern Cottonwood-willow Riparian Forest in the Northern Portion of the Review Area along the San Diego River, Facing North



PHOTOGRAPH 2

View of Patch of Disturbed Southern Cottonwood-willow Riparian Forest in the Northeastern Portion of the Review Area, Facing East



PHOTOGRAPH 3

View of Diegan Coastal Sage Scrub in the Western Portion of the Review Area on Sloped banks of the San Diego River, Facing West



PHOTOGRAPH 4

View of Disturbed Diegan Coastal Sage Scrub in the North-central Portion of the Review Area, Facing Northwest



PHOTOGRAPH 5

View of Disturbed Habitat in the South-central Portion of the Review Area,
Facing East



PHOTOGRAPH 6

View of Urban/Developed Land in the Southwestern Portion of the
Review Area, Facing Southwest



PHOTOGRAPH 7

View of Patch of Disturbed Southern Cottonwood-willow Riparian Forest in the
Northeastern Portion of the Review Area, Facing East



PHOTOGRAPH 8

View of Wracking and Change in Sediment Texture OHWM Indicators within
Northern Portion of the Review Area in the San Diego River Active Floodplain,
Facing West



PHOTOGRAPH 9

View of Surface Water within Low-flow Channel of San Diego River in Northern Portion of the Review Area, Facing West



PHOTOGRAPH 10

View of Break in Slope, Change in Sediment Texture, and Wracking OHWM Indicators in Small Channel in Southwestern Portion of the Review Area, Facing Southwest

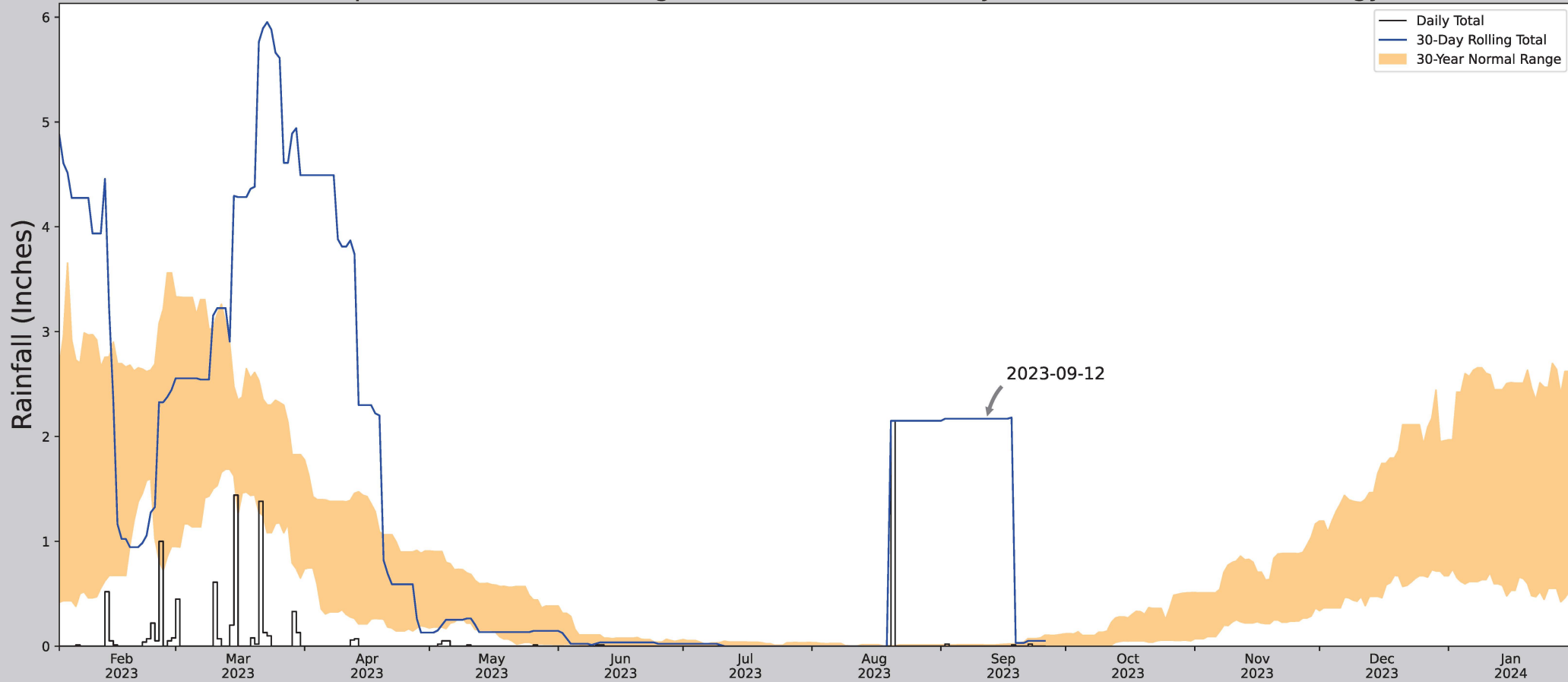


PHOTOGRAPH 11
Downward-facing View of Sandy Redox Hydric Soil at
Wetland Sample Point 4

ATTACHMENT 4

Antecedent Precipitation Tool Results

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



Coordinates	32.855238715, -116.947186292
Observation Date	2023-09-12
Elevation (ft)	370.758
Drought Index (PDSI)	Severe wetness (2023-08)
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
2023-09-12	0.0	0.011811	2.169291	Wet	3	3	9
2023-08-13	0.0	0.014173	0.0	Normal	2	2	4
2023-07-14	0.0	0.039764	0.0	Normal	2	1	2
Result							Wetter than Normal - 15

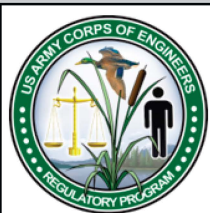


Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SAN DIEGO MONTGOMERY FLD	32.8144, -117.1375	417.979	11.403	47.221	5.67	8936	90
SAN DIEGO 1.5 WNW - KFMB	32.8266, -117.1569	425.853	1.407	7.874	0.644	1	0
SAN DIEGO 1.9 W	32.8139, -117.1693	366.142	1.847	51.837	0.927	4	0
SAN DIEGO 3.2 WNW	32.8353, -117.1859	374.016	3.159	43.963	1.56	4	0
SAN DIEGO MIRAMAR NAS	32.8667, -117.1333	477.034	3.622	59.055	1.844	2404	0
SAN DIEGO 7.9NE	32.8057, -117.0732	242.126	3.782	175.853	2.367	1	0
LA MESA	32.7675, -117.0233	529.856	7.382	111.877	4.148	3	0

ATTACHMENT 5

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: 9009.30A City/County: San Diego County Sampling Date: 09/12/2023
 Applicant/Owner: County of San Diego State: CA Sampling Point: WET 1
 Investigator(s): Andrew Smisek, Julia Gaudio Section, Township, Range: El Cajon Quadrangle, El Cajon Land Grant
 Landform (hillslope, terrace, etc): Upland area Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): C Lat: 32.85563698 Long: -116.9477339 Datum: WGS84
 Soil Map Unit Name: Tujunga sand, 0 to 5 percent slopes NWI classification: None

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> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: Patch of Parkinsonia vegetation occurs between developed roadways.	

VEGETATION - Use scientific names of plants.

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Tree Stratum (Plot size: <u>30-ft</u>)</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Parkinsonia aculeata</u> / Jerusalem thorn, Mexican palo verde</td> <td style="text-align: center;">50</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr><td>2. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>3. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>4. <u> </u></td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">50</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Sapling/Shrub Stratum (Plot size: <u>30-ft</u>)</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Baccharis sarothroides</u> / Broom baccharis</td> <td style="text-align: center;">2</td> <td style="text-align: center;">No</td> <td style="text-align: center;">FACU</td> </tr> <tr><td>2. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>3. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>4. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>5. <u> </u></td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">2</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Herb Stratum (Plot size: <u>30-ft</u>)</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Glebionis coronarium</u> / Crowndaisy</td> <td style="text-align: center;">60</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td>2. <u>Amsinckia</u> / Fiddleneck</td> <td style="text-align: center;">5</td> <td style="text-align: center;">No</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td>3. <u>Bromus rubens</u> / Red brome</td> <td style="text-align: center;">2</td> <td style="text-align: center;">No</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td>4. <u>Hirschfeldia incana</u> / Mustard</td> <td style="text-align: center;">1</td> <td style="text-align: center;">No</td> <td style="text-align: center;">UPL</td> </tr> <tr><td>5. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>6. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>7. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>8. <u> </u></td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">68</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Woody Vine Stratum (Plot size: <u>30-ft</u>)</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>2. <u> </u></td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">0</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> % Bare Ground in Herb Stratum <u>1</u> % Cover of Biotic Crust <u>0</u>	Tree Stratum (Plot size: <u>30-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Parkinsonia aculeata</u> / Jerusalem thorn, Mexican palo verde	50	Yes	FAC	2. <u> </u>				3. <u> </u>				4. <u> </u>					50	= Total Cover		Sapling/Shrub Stratum (Plot size: <u>30-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Baccharis sarothroides</u> / Broom baccharis	2	No	FACU	2. <u> </u>				3. <u> </u>				4. <u> </u>				5. <u> </u>					2	= Total Cover		Herb Stratum (Plot size: <u>30-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Glebionis coronarium</u> / Crowndaisy	60	Yes	UPL	2. <u>Amsinckia</u> / Fiddleneck	5	No	UPL	3. <u>Bromus rubens</u> / Red brome	2	No	UPL	4. <u>Hirschfeldia incana</u> / Mustard	1	No	UPL	5. <u> </u>				6. <u> </u>				7. <u> </u>				8. <u> </u>					68	= Total Cover		Woody Vine Stratum (Plot size: <u>30-ft</u>)	Absolute % Cover	Dominant Species?	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Remarks: Vegetation does not meet hydrophytic standard

SOIL

Sampling Point: WET 1

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		
0-18	10YR 3/2	100					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)	☐ Sandy Redox (S5)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5) (LRR C)	☐ Depleted Matrix (F3)
☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Vernal Pools (F9)
☐ Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicator observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

☐ Surface Water (A1)	☐ Salt Crust (B11)
☐ High Water Table (A2)	☐ Biotic Crust (B12)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes _____ No X Depth (inches): _____Water Table Present? Yes _____ No X Depth (inches): _____Saturation Present? Yes _____ No X 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 hydrology indicators observed.

Project/Site:	9009.30A	City/County:	San Diego County	Sampling Date:	09/12/2023
Applicant/Owner:	County of San Diego	State:	CA	Sampling Point:	WET 2
Investigator(s):	Andrew Smisek, Julia Gaudio	Section, Township, Range:	El Cajon Quadrangle, El Cajon Land Grant		
Landform (hillslope, terrace, etc):	Upland area	Local relief (concave, convex, none):	concave	Slope (%):	0
Subregion (LRR):	C	Lat:	32.85601946	Long:	-116.94500216
Soil Map Unit Name:	Riverwash	NWI classification:	None		
Datum:	WGS84				

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.)

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> X </u>	No <u> </u>		
Remarks: Sample point occurs within lowest point of ditch, where hydrology indicators are obvious. This area may become inundated temporarily but lacks hydrophytic vegetation and hydric soils.				

Tree Stratum (Plot size: 15-ft)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Morus alba</i> / Mulberry, White mulberry	5	Yes	FACU	
2. <i>Tamarix ramosissima</i> / Tamarisk, Saltcedar	5	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	10	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft)				
1. <i>Baccharis sarothroides</i> / Broom baccharis	5	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	5	= Total Cover		
Herb Stratum (Plot size: 15-ft)				
1. <i>Amaranthus albus</i> / Tumbleweed	3	Yes	FACU	
2. <i>Hirschfeldia incana</i> / Mustard	3	Yes	UPL	
3. <i>Cucurbita foetidissima</i> / Missouri gourd, Buffalo gourd, Calat	2	Yes	FACU	
4. <i>Festuca perennis</i> / Italian rye grass	1	No	FAC	
5. <i>Euphorbia maculata</i> / Spotted spurge	1	No	UPL	
6. <i>Glebionis coronarium</i> / Crowndaisy	1	No	UPL	
7. <i>Sonchus oleraceus</i> / Sow thistle, Common sow thistle	1	No	UPL	
8. <i>Cyperus eragrostis</i> / Tall cyperus	1	No	FACW	
	13	= Total Cover		
Woody Vine Stratum (Plot size: 15-ft)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	0	= Total Cover		
% Bare Ground in Herb Stratum <u>1</u> % Cover of Biotic Crust <u>0</u>				

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>1</u>	x 2 = <u>2</u>
FAC species <u>6</u>	x 3 = <u>18</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>6</u>	x 5 = <u>30</u>
Column Totals: <u>28</u>	(A) <u>110</u> (B)

Prevalence Index = B/A = 3.93

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index ≤3.0¹

___ Morphological Adaptations¹ (Provide supporting

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?

Yes _____ No X

US Army Corps of Engineers

SOIL

Sampling Point: WET 2

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		
0-5	10YR 3/2	90					Loam	10% inclusions of 10YR3/3 lower layer
5-18	10YR 3/3	100					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)	☐ Sandy Redox (S5)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5) (LRR C)	☐ Depleted Matrix (F3)
☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Vernal Pools (F9)
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Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicator observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

☐ Surface Water (A1)	☐ Salt Crust (B11)
☐ High Water Table (A2)	☐ Biotic Crust (B12)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)
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Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)
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☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes _____ No X Depth (inches): _____Water Table Present? Yes _____ No X Depth (inches): _____Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

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

Remarks:

This area appears to become temporarily inundated, perhaps only in response to significant rain events.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: 9009.30A City/County: San Diego County Sampling Date: 09/12/2023
 Applicant/Owner: County of San Diego State: CA Sampling Point: WET 3
 Investigator(s): Andrew Smisek, Julia Gaudio Section, Township, Range: El Cajon quadrangle, El Cajon land grant
 Landform (hillslope, terrace, etc): None Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): C Lat: 32.85600755 Long: -116.94415107 Datum: WGS84
 Soil Map Unit Name: Riverwash NWI classification: none

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>X</u> No <u> </u>	
Remarks: Sample point occurs at bottom of roadside ditch where hydrology indicators are obvious. Although this area may become inundated, it does not support hydrophytic vegetation or hydric soils. It may only pond briefly without developing prolonged anaerobic conditions.		

VEGETATION - Use scientific names of plants.

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Remarks:
Vegetation does not meet hydrophytic standard

SOIL

Sampling Point: WET 3

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		
0-12	10YR 3/2	90					Loam	10% inclusions of 10YR3/3 lower layer
12-18	10YR 3/3	100					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

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

☐ Histosol (A1)	☐ Sandy Redox (S5)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5) (LRR C)	☐ Depleted Matrix (F3)
☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Vernal Pools (F9)
☐ Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

☐ Surface Water (A1)	☐ Salt Crust (B11)
☐ High Water Table (A2)	☐ Biotic Crust (B12)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)
☒ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)
☒ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____Water Table Present? Yes _____ No X Depth (inches): _____Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Hydrology indicators observed. This area appears to become inundated temporarily and possibly only in response to major rain events.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: 9009.30A City/County: San Diego County Sampling Date: 09/12/2023
 Applicant/Owner: County of San Diego State: CA Sampling Point: WET 4
 Investigator(s): Andrew Smisek, Julia Gaudio Section, Township, Range: El Cajon Quadrangle, El Cajon Land Grant
 Landform (hillslope, terrace, etc): Active river floodplain Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): C Lat: 32.85645756 Long: -116.94746397 Datum: WGS84
 Soil Map Unit Name: Tujunga sand, 0 to 5 percent slopes NWI classification: None

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>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks: Sample point within active floodplain of San Diego river.	

VEGETATION - Use scientific names of plants.

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Remarks: Hydrophytic vegetation observed

SOIL

Sampling Point: WET 4

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		
0-2	10YR 4/3	98	7.5YR 4/4	2	C		Sand	Redox in root channels
2-8	10YR 2/1	98	7.5YR 4/4	2	C		Sand	Redox in root channels

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

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

☐ Histosol (A1)	☒ Sandy Redox (S5)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5) (LRR C)	☐ Depleted Matrix (F3)
☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Vernal Pools (F9)
☐ Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ground water

Depth (inches): 8

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Redox features observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

☒ Surface Water (A1)	☐ Salt Crust (B11)
☐ High Water Table (A2)	☐ Biotic Crust (B12)
☒ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2) (Nonriverine)	☒ Oxidized Rhizospheres along Living Roots (C3)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)
☒ Sediment Deposits (B2) (Riverine)
☒ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (inches): 8
Water Table Present?	Yes ☒ No ☐	Depth (inches): 8
Saturation Present?	Yes ☒ No ☐	Depth (inches): 3
(includes capillary fringe)		

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Many obvious hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: 9009.30A City/County: San Diego County Sampling Date: 09/13/2023
 Applicant/Owner: County of San Diego State: CA Sampling Point: UPL 4
 Investigator(s): Andrew Smisek, Julia Gaudio Section, Township, Range: El Cajon Quadrangle, El Cajon Land Grant
 Landform (hillslope, terrace, etc): upslope from OHWM of river Local relief (concave, convex, none): none Slope (%): 15
 Subregion (LRR): C Lat: 32.8562576 Long: -116.9475177 Datum:
 Soil Map Unit Name: Tujunga sand, 0-5% slopes NWI classification: None

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: Paired sample point to WET 4, just upslope of OHWM along southern river bank.		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30-ft</u>) <table border="1"> <thead> <tr> <th></th> <th>Absolute % Cover</th> <th>Dominant Species?</th> <th>Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <i>Salix laevigata</i> / Polished willow, Red willow</td> <td>10</td> <td>Yes</td> <td>FACW</td> </tr> <tr> <td>2. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td>3. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td>4. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td></td> <td>10</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> Sapling/Shrub Stratum (Plot size: <u>15-ft</u>) <table border="1"> <tbody> <tr> <td>1. <i>Artemisia californica</i> / Coastal sage brush, California sagebrn</td> <td>15</td> <td>Yes</td> <td>UPL</td> </tr> <tr> <td>2. <i>Baccharis sarothroides</i> / Broom baccharis</td> <td>3</td> <td>No</td> <td>FACU</td> </tr> <tr> <td>3. <i>Baccharis salicifolia</i> / Mule fat</td> <td>1</td> <td>No</td> <td>FAC</td> </tr> <tr> <td>4. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td>5. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td></td> <td>19</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> Herb Stratum (Plot size: <u>5-ft</u>) <table border="1"> <tbody> <tr> <td>1. <i>Helminthotheca echioides</i> / Bristly ox-tongue</td> <td>5</td> <td>Yes</td> <td>FAC</td> </tr> <tr> <td>2. <i>Hirschfeldia incana</i> / Mustard</td> <td>5</td> <td>Yes</td> <td>UPL</td> </tr> <tr> <td>3. <i>Phalaris minor</i> / Mediterranean canarygrass, Little-seeded ca</td> <td>5</td> <td>Yes</td> <td>FACU</td> </tr> <tr> <td>4. <i>Piptatherum miliaceum</i> / Smilgrass</td> <td>1</td> <td>No</td> <td>FACU</td> </tr> <tr> <td>5. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td>6. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td>7. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td>8. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td></td> <td>16</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> Woody Vine Stratum (Plot size: <u>30-ft</u>) <table border="1"> <tbody> <tr> <td>1. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td>2. <u></u></td> <td><u></u></td> <td><u></u></td> <td><u></u></td> </tr> <tr> <td></td> <td>0</td> <td colspan="2">= Total Cover</td> </tr> </tbody> </table> % Bare Ground in Herb Stratum <u>25</u> % Cover of Biotic Crust <u>0</u>					Absolute % Cover	Dominant Species?	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Remarks:
Vegetation does not meet hydrophytic standard

SOIL

Sampling Point: UPL 4

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		
0-18	10YR 3/3	100					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

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

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Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (LRR C)
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☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒ X

Remarks:

no redox features observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

☐ Surface Water (A1)	☐ Salt Crust (B11)
☐ High Water Table (A2)	☐ Biotic Crust (B12)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ☒ X	Depth (inches):	5in
Water Table Present?	Yes _____ No ☒ X	Depth (inches):	5
Saturation Present?	Yes _____ No ☒ X	Depth (inches):	3
(includes capillary fringe)			

Wetland Hydrology Present? Yes _____ No ☒ X

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

Remarks:

no hydrology indicators observed

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: 9009.30A City/County: San Diego County Sampling Date: 09/12/2023
 Applicant/Owner: County of San Diego State: CA Sampling Point: WET 5
 Investigator(s): Andrew Smisek and Julia Gaudio Section, Township, Range: El Cajon Quadrangle, El Cajon Land Grant
 Landform (hillslope, terrace, etc): None Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): C Lat: 32.85562059 Long: -116.94832199 Datum: WGS84
 Soil Map Unit Name: Tujunga sand, 0 to 5 percent slopes NWI classification: none

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>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks: Wetland along historic secondary channel within active floodplain of river.	

VEGETATION - Use scientific names of plants.

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Tree Stratum (Plot size: <u>15-ft</u>)</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Populus fremontii</u> / Fremont cottonwood</td> <td style="text-align: center;">50</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>2. <u>Salix gooddingii</u> / Goodding's willow, Goodding's black willow</td> <td style="text-align: center;">50</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td>3. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">100</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Sapling/Shrub Stratum (Plot size: <u>15-ft</u>)</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Baccharis salicifolia</u> / Mule fat</td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>2. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">10</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Herb Stratum (Plot size: <u>15-ft</u>)</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Apium graveolens</u> / Celery or smallage</td> <td style="text-align: center;">15</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td>2. <u>Artemisia douglasiana</u> / California mugwort</td> <td style="text-align: center;">5</td> <td style="text-align: center;">No</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>3. <u>Schoenoplectus californicus</u> / California bulrush, Southern bulrush</td> <td style="text-align: center;">5</td> <td style="text-align: center;">No</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td>4. <u>Typha latifolia</u> / Broadleaf cattail, Broad-leaved cattail</td> <td style="text-align: center;">2</td> <td style="text-align: center;">No</td> <td style="text-align: center;">OBL</td> </tr> <tr> <td>5. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">27</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Woody Vine Stratum (Plot size: <u>15-ft</u>)</th> <th style="width: 10%;">Absolute % Cover</th> <th style="width: 10%;">Dominant Species?</th> <th style="width: 10%;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Vitis girdiana</u> / Southern california grape, Desert wild grape</td> <td style="text-align: center;">2</td> <td style="text-align: center;">No</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>2. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">2</td> <td colspan="2" style="text-align: center;">= Total Cover</td> </tr> </tbody> </table> % Bare Ground in Herb Stratum <u>1</u> % Cover of Biotic Crust <u>0</u>	Tree Stratum (Plot size: <u>15-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Populus fremontii</u> / Fremont cottonwood	50	Yes	FAC	2. <u>Salix gooddingii</u> / Goodding's willow, Goodding's black willow	50	Yes	FACW	3. <u> </u>				4. <u> </u>					100	= Total Cover		Sapling/Shrub Stratum (Plot size: <u>15-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Baccharis salicifolia</u> / Mule fat	10	Yes	FAC	2. <u> </u>				3. <u> </u>				4. <u> </u>				5. <u> </u>					10	= Total Cover		Herb Stratum (Plot size: <u>15-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Apium graveolens</u> / Celery or smallage	15	Yes	FACW	2. <u>Artemisia douglasiana</u> / California mugwort	5	No	FAC	3. <u>Schoenoplectus californicus</u> / California bulrush, Southern bulrush	5	No	OBL	4. <u>Typha latifolia</u> / Broadleaf cattail, Broad-leaved cattail	2	No	OBL	5. <u> </u>				6. <u> </u>				7. <u> </u>				8. <u> </u>					27	= Total Cover		Woody Vine Stratum (Plot size: <u>15-ft</u>)	Absolute % Cover	Dominant Species?	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Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Total % Cover of:	Multiply by:			OBL species <u>7</u>	x 1 =	<u>7</u>		FACW species <u>65</u>	x 2 =	<u>130</u>		FAC species <u>67</u>	x 3 =	<u>201</u>		FACU species <u>0</u>	x 4 =	<u>0</u>		UPL species <u>0</u>	x 5 =	<u>0</u>		Column Totals: <u>139</u>	(A)	<u>338</u>	(B)
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Remarks: Vegetation meets the hydrophytic standard

SOIL

Sampling Point: WET 5

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		
0-10	10YR 2/1	99	2.5YR 3/3	1	C	M	Sandy Loam	
10-12	10YR 3/1	100					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)	☐ Sandy Redox (S5)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)
☒ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5) (LRR C)	☐ Depleted Matrix (F3)
☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Vernal Pools (F9)
☐ Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

Black histic indicator observed. First 10 inches of soil contains sufficient muck and peat material.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

☒ Surface Water (A1)	☐ Salt Crust (B11)
☐ High Water Table (A2)	☐ Biotic Crust (B12)
☒ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)
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☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (inches): 3
Water Table Present?	Yes ☒ No ☐	Depth (inches): 6
Saturation Present?	Yes ☒ No ☐	Depth (inches): 0
(includes capillary fringe)		

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Many and obvious hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: 9009.30A City/County: San Diego County Sampling Date: 09/12/2023
 Applicant/Owner: County of San Diego State: CA Sampling Point: UPL 5
 Investigator(s): Andrew Smisek and Julia Gaudio Section, Township, Range: El Cajon quadrangle, El Cajon Land Grant
 Landform (hillslope, terrace, etc): None Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): C Lat: 32.85560005 Long: -116.948296 Datum: WGS84
 Soil Map Unit Name: Tujunga sand, 0 to 5 percent slopes NWI classification: none

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>X</u> No <u> </u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: Paired upland point to WET 5	

VEGETATION - Use scientific names of plants.

<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Tree Stratum (Plot size: <u>30-ft</u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Populus fremontii</u> / Fremont cottonwood</td> <td style="text-align: center;">25</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>2. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">25</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Sapling/Shrub Stratum (Plot size: <u>30-ft</u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr> <td>1. <u>Pluchea sericea</u> / Arrow weed, Arrow-weed</td> <td style="text-align: center;">20</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FACW</td> </tr> <tr> <td>2. <u>Salvia mellifera</u> / Black sage</td> <td style="text-align: center;">15</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td>3. <u>Baccharis salicifolia</u> / Mule fat</td> <td style="text-align: center;">10</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">FAC</td> </tr> <tr> <td>4. <u>Artemisia californica</u> / Coastal sage brush, California sagebrn</td> <td style="text-align: center;">3</td> <td style="text-align: center;">No</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td>5. <u> </u></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">48</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Herb Stratum (Plot size: <u> </u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>2. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>3. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>4. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>5. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>6. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>7. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>8. <u> </u></td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">0</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Woody Vine Stratum (Plot size: <u> </u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u> </u></td><td></td><td></td><td></td></tr> <tr><td>2. <u> </u></td><td></td><td></td><td></td></tr> <tr> <td></td> <td style="text-align: center;">0</td> <td colspan="2" style="text-align: right;">= Total Cover</td> </tr> </tbody> </table> % Bare Ground in Herb Stratum <u>1</u> % Cover of Biotic Crust <u>0</u>	Tree Stratum (Plot size: <u>30-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Populus fremontii</u> / Fremont cottonwood	25	Yes	FAC	2. <u> </u>				3. <u> </u>				4. <u> </u>					25	= Total Cover		Sapling/Shrub Stratum (Plot size: <u>30-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Pluchea sericea</u> / Arrow weed, Arrow-weed	20	Yes	FACW	2. <u>Salvia mellifera</u> / Black sage	15	Yes	UPL	3. <u>Baccharis salicifolia</u> / Mule fat	10	Yes	FAC	4. <u>Artemisia californica</u> / Coastal sage brush, California sagebrn	3	No	UPL	5. <u> </u>					48	= Total Cover		Herb Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u> </u>				2. <u> </u>				3. <u> </u>				4. <u> </u>				5. <u> </u>				6. <u> </u>				7. <u> </u>				8. <u> </u>					0	= Total Cover		Woody Vine Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	1. <u> </u>				2. <u> </u>					0	= Total Cover		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0</u> (A/B) Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: center;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>18</u></td> <td>x 5 = <u>90</u></td> </tr> <tr> <td>Column Totals: <u>73</u> (A)</td> <td><u>235</u> (B)</td> </tr> </tbody> </table> Prevalence Index = B/A = <u>3.22</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>18</u>	x 5 = <u>90</u>	Column Totals: <u>73</u> (A)	<u>235</u> (B)
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Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
 Prevalence Index ≤3.0¹
 Morphological Adaptations¹ (Provide supporting
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u> </u>
--	-------------------------------

Remarks:
 Vegetation meets the hydrophytic standard

SOIL

Sampling Point: UPL 5

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		
0-18	10YR 3/2	100					Loam	No redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)	☐ Sandy Redox (S5)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5) (LRR C)	☐ Depleted Matrix (F3)
☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Vernal Pools (F9)
☐ Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one required: check all that apply)

☐ Surface Water (A1)	☐ Salt Crust (B11)
☐ High Water Table (A2)	☐ Biotic Crust (B12)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes _____ No X Depth (inches): _____Water Table Present? Yes _____ No X Depth (inches): _____Saturation Present? Yes _____ No X 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 hydrology indicators observed

ATTACHMENT 6

Ordinary High Water Mark Data Sheets

U.S. Army Corps of Engineers (USACE)			OMB Control No. 0710-
RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET			Approval Expires:
The proponent agency is Headquarters USACE CECW-CO-R.			
Project ID #: OHWM 1	Site Name: 9009.30A Riverford Road Roundabouts	Date and Time: 09/12/23, 10 am	
Location (lat/long): 32.85298139, -116.94895015		Investigator(s): Andrew Smisek and Julia Gaudio	
Step 1 Site overview from remote and online resources Check boxes for online resources used to evaluate site: ☐ gage data ☐ LiDAR ☐ geologic maps ☒ climatic data ☒ satellite imagery ☒ land use maps ☒ aerial photos ☒ topographic maps ☐ Other: _____		Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)? Channel along base of manufactured slope, between freeway and parking lot.	
Step 2 Site conditions during field assessment First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc. Channel flows in man made ditch. Starts at culvert outfall.			
Step 3 Check the boxes next to the indicators used to identify the location of the OHWM. OHWM is at a transition point , therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM. OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.			
Geomorphic Indicators ☒ Break in slope: b ☒ on the bank: x ☐ undercut bank: ☐ valley bottom: ☐ Other: _____ ☒ Shelving: b ☐ shelf at top of bank: ☐ natural levee: ☐ man-made berms or levees: ☐ other berms: _____ ☐ Channel bar: ☐ shelving (berms) on bar: ☐ unvegetated: ☐ vegetation transition (go to veg. indicators): ☐ sediment transition (go to sed. indicators) ☐ upper limit of deposition on bar: ☐ Instream bedforms and other bedload transport evidence: ☐ deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.): ☐ bedforms (e.g., poofs, riffles, steps, etc.): ☐ erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.): ☐ Secondary channels:	Sediment Indicators ☒ Soil development: a ☒ Changes in character of soil: b ☒ Mudcracks: b ☐ Changes in particle-sized distribution: ☐ transition from _____ to _____ ☐ upper limit of sand-sized particles ☐ silt deposits Vegetation Indicators ☒ Change in vegetation type and/or density: x <i>Check the appropriate boxes and select the general vegetation change (e.g., graminoids to woody shrubs). Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.</i> ☒ vegetation absent to: woody shrubs ☐ moss to: ☐ forbs to: ☐ graminoids to: ☐ woody shrubs to: ☐ deciduous trees to: ☐ coniferous trees to: ☒ Vegetation matted down and/or bent: x ☐ Exposed roots below intact soil layer:	Ancillary indicators ☒ Wracking/presence of organic litter: x ☐ Presence of large wood: ☒ Leaf litter disturbed or washed away: x ☐ Water staining: ☐ Weathered clasts or bedrock Other observed indicators? Describe: N/A	
Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:			

Project ID
#

OHWM 1

Step 5 Describe rationale for location of OHWM

The OHWM occurs at the line impressed on the bank where leaf litter has been washed away, sediment has been deposited, and wracking occurs. Channel has a consistent bed and bank structure and change in vegetation.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

[illegible]



PHOTOGRAPH 1

Upstream View of Break in Slope, Change in Sediment Texture, and Wracking OHWM Indicators in Small Channel in Southwestern Portion of the Review Area, Facing Northeast



PHOTOGRAPH 2

Downstream View of Break in Slope, Change in Sediment Texture, and Mudcracks OHWM Indicators in Small Channel in Southwestern Portion of the Review Area, Facing Southwest

U.S. Army Corps of Engineers (USACE) RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET The proponent agency is Headquarters USACE CECW-CO-R.		OMB Control No. 0710- Approval Expires:
Project ID #: OHWM 2	Site Name: 9009.30A Riverford Road Roundabouts	Date and Time: 09/12/23, 2:30pm
Location (lat/long): 32.8566428, -116.94727807		Investigator(s): Andrew Smisek and Julia Gaudio
Step 1 Site overview from remote and online resources Check boxes for online resources used to evaluate site:		Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)? San Diego river floodplain
☐ gage data ☐ LiDAR ☐ geologic maps ☒ climatic data ☒ satellite imagery ☒ land use maps ☒ aerial photos ☒ topographic maps ☐ Other:		
Step 2 Site conditions during field assessment First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc. Water in low flow channel, hydrology indicators abundant throughout floodplain		
Step 3 Check the boxes next to the indicators used to identify the location of the OHWM. OHWM is at a transition point , therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM. OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.		
Geomorphic Indicators ☒ Break in slope: a ☒ on the bank: x ☐ undercut bank: ☒ valley bottom: x ☐ Other: ☒ Shelving: b ☐ shelf at top of bank: ☐ natural levee: ☒ man-made berms or levees: x ☐ other berms: ☒ Channel bar: b ☒ shelving (berms) on bar: b ☒ unvegetated: b ☒ vegetation transition (go to veg. indicators): x ☒ sediment transition (go to sed. Indicators) x ☐ upper limit of deposition on bar: ☐ Instream bedforms and other bedload transport evidence: deposition bedload indicators ☐ (e.g., imbricated clasts, gravel sheets, etc.) ☐ bedforms (e.g., poofs, riffles, steps, etc.): erosional bedload indicators ☐ (e.g., obstacle marks, scour, smoothing, etc.) ☐ Secondary channels:	Sediment Indicators ☒ Soil development: x ☒ Changes in character of soil: b ☐ Mudcracks: ☒ Changes in particle-sized distribution: b ☒ transition from gravel and sand to loamy soil ☒ upper limit of sand-sized particles ☒ silt deposits Vegetation Indicators ☒ Change in vegetation type and/or density: x Check the appropriate boxes and select the general vegetation change (e.g., graminoids to woody shrubs). Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain. ☐ vegetation absent to: ☐ moss to: ☐ forbs to: ☐ graminoids to: ☐ woody shrubs to: ☒ deciduous trees to: woody shrubs ☐ coniferous trees to: ☒ Vegetation matted down and/or bent: b ☒ Exposed roots below intact soil layer: b	Ancillary indicators ☒ Wracking/presence of organic litter: x ☒ Presence of large wood: b ☒ Leaf litter disturbed or washed away: x ☒ Water staining: b ☐ Weathered clasts or bedrock Other observed indicators? Describe: N/A Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:

Project ID # OHWM 2

Step 5 Describe rationale for location of OHWM

The OHWM occurs along bank where vegetation changes, wracking occurs, and there is sediment deposited. Abundant hydrology indicators below the OHWM.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph Description
1	Upstream View of Vegetated Channel Bar and Ancillary Indicators within San Diego River, Facing East
2	Downstream View of Surface Water within Low-flow Channel of San Diego River, Facing West
3	North-facing View across San Diego River Floodplain with Wetland Vegetation and Wracking
4	South-facing View of Southern Bank of San Diego River with Break in Slope, Change in Sediment, Wracking, and Leaf Litter Washed Away



PHOTOGRAPH 1

Upstream View of Vegetated Channel Bar and Ancillary Indicators within
San Diego River, Facing East



PHOTOGRAPH 2

Downstream View of Surface Water within Low-flow Channel of
San Diego River, Facing West



PHOTOGRAPH 3

North-facing View across San Diego River Floodplain with Wetland Vegetation and Wracking



PHOTOGRAPH 4

South-facing View of Southern Bank of San Diego River with Break in Slope, Change in Sediment, Wracking, and Leaf Litter Washed Away

ATTACHMENT 7

References Cited

References Cited

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