Final

MAPLEVIEW STREET GREEN STREETS PROJECT

Aquatic Resources Delineation Report

Prepared for
County of San Diego Department of
Public Works

June 11, 2020

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MAPLEVIEW STREET GREEN STREETS PROJECT AQUATIC RESOURCES DELINEATION REPORT

Aquatic Resources Delineation Report

Executive Summary

This aquatic resources delineation report has been prepared in accordance with the U.S. Army Corps of Engineers' (USACE's) *1987 Wetland Delineation Manual* (Lichvar et al. 1987), *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008b), *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) and Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017).

The Mapleview Street Green Streets Project (project) and 100-foot buffer of the project (referred to herein as the study area) was found to contain 0.10 acre of potential non-wetland waters of the U.S. under the potential jurisdiction of the USACE and Regional Water Quality Control Board consisting of a concrete-lined flood control channel. Potential waters of the state in the study area total 0.15 acre (936 linear feet) of non-wetland waters and consist of a concrete-lined flood control channel and roadside ditch. Areas potentially subject to Section 1602 of the California Fish and Game Code total 0.15 acre (936 linear feet) of the study area, including 0.10 acre of unvegetated streambed composing a concrete-lined flood control channel and 0.05 acre of vegetated streambed comprising a roadside ditch.

1.0 Introduction

This report describes the methods and results of an aquatic resources delineation conducted on June 5, 2019, for the project under contract to the County of San Diego (County) Department of Public Works (DPW). The purpose of this report is to identify and describe aquatic resources in the study area.

1.1 Project Description

The proposed Mapleview Street Green Streets Project would improve stormwater conveyance and water quality along Mapleview Street through implementation of structural stormwater best management practices (BMPs). The project occurs along approximately 0.69 mile of Mapleview Street from Vine Street to Pino Drive located within the unincorporated community of Lakeside in San Diego County. The existing drainage conveyance along Mapleview Street consists of curb

and gutter, asphalt concrete berm, earthen channels, sub-surface storm drains with curb inlets, and concrete-lined flood control channels. Runoff from rain events, ground water infiltration, and irrigation activities flows into the County's Municipal Separate Storm Sewer System (MS4) with limited treatment before entering the San Diego River. The goal of the project is to improve water quality by treating wet weather flows along Mapleview Street to help meet indicator bacteria Total Maximum Daily Load (TMDL) targets in the San Diego River watershed.

Proposed improvements include installation of approximately 460 linear feet of 5-foot wide sidewalks, 200 linear feet of a 3-foot wide cobble-lined swale, and 550 linear feet of 4-foot wide biofiltration basins along Mapleview Street between Vine Street and Ashwood Street. The new cobble-lined swale and biofiltration basins will be connected to the existing concrete-lined flood control channel and the existing unlined roadside ditch would be improved with an 8-foot wide dispersion area. These improvements would remain unlined and consist of a layer of cobble, amended soil, and a choker layer to increase the amount of retention, infiltration and treatment of stormwater flows. A masonry retaining wall, with heights varying from approximately 4 to 6-feet, would be constructed along a portion of the north side of the dispersion area to stabilize the eroded banks of the channel, as needed.

Strom drain improvements would occur at the intersection of Ashwood Street and Mapleview Street and would continue east along the north side of Mapleview Street for approximately 450 feet. An existing 57- by 38-inch corrugated metal pipe (CMP) at Ashwood Street would be replaced with a 6- by 2-foot reinforced concrete box (RCB), and an existing 42- by 29-inch CMP located east of Ashwood Street would be replaced with a 4- by 3-foot RCB to increase the flow capacity. East of the storm drain improvements, 8-foot wide biofiltration basins would be constructed within the shoulder of the roadway. The basins would consist of a multi-layer treatment area to allow for infiltration and treatment of stormwater runoff and a plastic liner. A 4.5-foot wide decomposed granite maintenance corridor would be constructed north of the basins and a 5-foot wide sidewalk with curb and gutter south of the basins. The sidewalk, curb, gutter, driveway, and road improvements would continue along Mapleview Street and terminate west of Pino Drive. On the south side of Mapleview Street, and located east and west of Duncan Drive, sidewalk, curb, gutter, and driveway improvements would be constructed. Construction is anticipated to last approximately 6 months.

Two facilities under the County's Regional General Permit-53 (RGP-53) permit program are within the project area and undergo regular maintenance by the County Department of Public Works (DPW). The two maintained facilities are numbered; Facility 33-006 is the maintained roadside ditch that carries flows in a westerly direction to Facility FC-020, the concrete-lined flood control channel. County DPW routinely maintains these facilities by removing sediment, vegetation, and debris.

1.2 Project Location

The 3.02-acre project area is located along Mapleview Street between Vine Street and Pino Drive in the unincorporated community of Lakeside in San Diego County, California (**Figure 1**). The project area is located at an elevation of approximately 400 to 440 feet above mean sea level and is within Township 15 South, Range 1E, Sections 17 and 18 of the El Cajon U.S. Geological

Survey (USGS) 7.5-minute quadrangle. The study area consists of 138 Assessor's Parcel Numbers (APNs) (**Appendix A**).

Directions to the study area:

The study area is not associated with a street address. Navigate to 32.863561, -116.917775 as follows: from San Diego, take State Route (SR) 94 east to I-8 east and SR 67 north, take the exit for Mapleview Street; turn right (east); park on the either side of Mapleview Street where parking is permitted.

Project Applicant:

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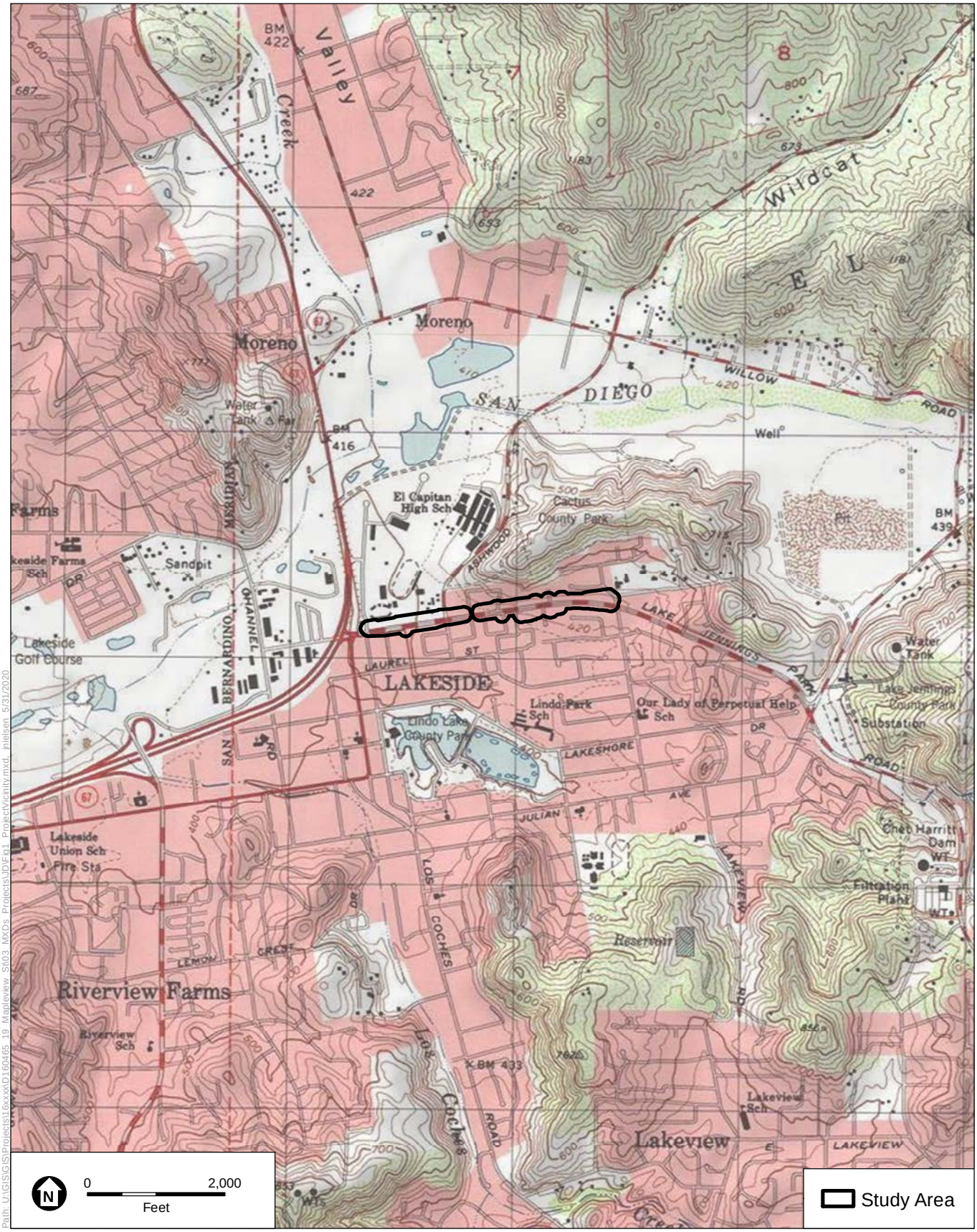
2.0 Existing Conditions

2.1 Aquatic Resources Study Area

The 3.02-acre project area plus a 100-foot buffer (study area, totaling 22.49 acres) is predominantly developed with small undeveloped areas occurring along Mapleview Street between the road shoulder and adjacent residential or commercial development (**Figure 2**). The study area is centered on an existing roadway and shoulder, as well as a maintained roadside ditch characterized by ruderal, weedy vegetation surrounded by high-density residential and commercial developments. Natural habitat does not occur within the within the study area.

2.2 Vegetation

Vegetation communities and cover types within the study area were classified according to *Preliminary Descriptions of the Terrestrial Communities of California* by Holland (1986) as modified by Oberbauer (2008). These communities are depicted in **Figure 3** and described below. The acreages of vegetation communities associated with aquatic resources are provided in Table 1 of Section 4.2.



SOURCE: USGS 7.5' Topo Quad El Cajon 1975, 1978; San Vicente Reservoir 1971, 1973

Mapleview Jurisdictional Delineation

Figure 1
Project Vicinity

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SOURCE: ESRI, 2020.

Mapleview Jurisdictional Delineation

Figure 2
Project Location

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SOURCE: ESRI, 2020.

Mapleview Jurisdictional Delineation

Figure 3
Vegetation Community/Land Cover Types

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The study area was limited to one vegetation community and one land cover type: non-native grassland: broadleaf-dominated; and urban/developed. In general, native plants were few and far between, with the exception of a few individual native shrub or tree species, such as laurel sumac (*Malosma laurina*, NL[1]) and coast live oak (*Quercus agrifolia*, NL) that managed to grow within undeveloped portions of the study area. Plant species with an obligate wetland indicator status were not observed during the survey. Two plant species containing a facultative wet wetland indicator status were observed within study area: common knotweed (*Persicaria lapathifolia*) and Mexican fan palm. Common knotweed was observed within the roadside ditch but was not dominant and was limited to a single individual. Mexican fan palm individuals were planted and associated with residential areas. Four plants species containing a facultative wetland indicator status were observed within the study area in low numbers, were not dominant, and included Brazilian pepper tree (*Schinus terebinthifolius*), Jersey cudweed (*Pseudognaphalium luteoalbum*), tree tobacco (*Nicotiana glauca*), and dallis grass (*Paspalum dilatatum*). Plant species observed in the study area are listed in **Appendix B**.

Non-Native Grassland: Broadleaf-Dominated

Non-native grassland: broadleaf-dominated describes areas that are dominated by one or several non-native, invasive broadleaf species where non-native broadleaf species account for more than 50 percent of the total vegetative cover. Germination occurs with the onset of the late fall rains; growth, flowering, and seed-set occur from winter through spring. With a few exceptions, the plants are dormant through the summer-fall dry season, persisting as seeds. Remnant native species are variable.

Non-native grassland: broadleaf-dominated occur within the undeveloped portions of study area north of Mapleview Street in the western portion of the study area, including roadside ditch, and within undeveloped areas north and south of Mapleview Street in the eastern portion of the study area. Non-native grassland: broadleaf-dominated areas are characterized by approximately 70 to 100 percent cover with weedy, non-native forbs such as red brome (*Bromus madritensis* ssp. *rubens*, UPL[2]), Canada horseweed (*Erigeron Canadensis*, FACU[3]), short pod mustard (*Hirschfeldia incana*; NL), and annual sunflower (*Helianthus annus*, FACU). Plants also observed in smaller numbers included puncture vine (*Tribulus terrestris*, NL), tree tobacco (*Nicotiana glauca*, FAC[4]), wild oat (*Avena fatua*, NL), common sow thistle (*Sonchus oleraceus*; UPL), and redstem filaree (*Erodium cicutarium*, NL).

1 NL - species not listed (Lichvar et al. 2016). These species are not listed on the Wetland Plant List.

2 UPL - species listed as upland (Lichvar et al. 2016). These species occur in wetlands in another region, but occur almost always under natural conditions in non-wetlands in the arid west.

3 FACU - species listed as facultative upland (Lichvar et al. 2016). These species usually occur in non-wetlands but are occasionally found in wetlands.

4 FAC - species listed as facultative (Lichvar et al. 2016). These species equally likely to occur in wetlands or non-wetlands.

Urban/Developed

Urban/developed areas include areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Urban/developed areas are characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation.

Urban/developed areas include Mapleview Street and connecting roadways, concrete-lined flood control channels, residential areas, and commercial areas within the study area.

2.3 Soils

Soils map units within the study area, as shown in **Figure 4**, include the following: Grangeville fine sandy loam, 0 to 2 percent slopes; Greenfield sandy loam, 2 to 5 percent slopes; Ramona sandy loam, 5 to 9 percent slopes; and Tujunga sand, 0 to 5 percent slopes. Soils in the study area are disturbed due to the historical alteration of the area to accommodate residential and commercial development, including the roadside ditch, which is a man-made feature. Soil pits excavated at two sample points within the roadside ditch (Sample Points 1a and 2a) and two sample points outside the roadside ditch in upland areas (Sample Points 1b and 2b) lacked hydric soil indicators and as such did not meet the parameters of a wetland soil.

Each soil map unit is described below. The datasheets containing the results of the sample points are included in **Appendix C** and the sample point locations are displayed in **Figures 5b**, **6b**, and **7b**.

Grangeville Fine Sandy Loam, 0 to 2 Percent Slopes

This soil map unit is not mapped by Natural Resources Conservation Service (NRCS) as a hydric soil. Grangeville fine sandy loam is found on alluvial fans and consists of alluvium derived from granite. The typical profile consists of fine sandy loam from 0 to 11 inches and sandy loam, fine sandy loam and very fine sandy loam from 11 to 40 inches. This soil map unit is considered somewhat poorly drained with typical depth to water table of 24 to 48 inches. It is rarely subject to flooding and not subject to ponding.

Greenfield Sandy Loam, 2 to 5 Percent Slopes

This soil map unit is not mapped by NRCS as a hydric soil. Greenfield sandy loam is found on alluvial fans and consists of alluvium derived from granite. The typical profile consists of sandy loam from 0 to 6 inches and sandy loam and loam from 6 to 34 inches. This soil map unit is considered well drained with typical depth to water table of more than 80 inches. It is not subject to flooding or ponding.

Ramona Sandy Loam, 5 to 9 Percent Slopes

This soil map unit is not mapped by NRCS as a hydric soil. Ramona sandy loam is found on alluvial fans and consists of alluvium derived from granite. The typical profile consists of sandy loam from 0 to 17 inches and sandy clay loam, clay loam and/or sandy clay loam, and sandy loam from 17 to 60 inches. This soil map unit is considered well drained with typical depth to water table of more than 80 inches. It is not subject to flooding or ponding.

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SOURCE: Mapbox; SSURGO

Mapleview Jurisdictional Delineation

Figure 4
Soils Survey

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Tujunga Sand, 0 to 5 Percent Slopes

This soil map unit is not mapped by NRCS as a hydric soil. Tujunga sand is found on floodplains and consists of alluvium derived from granite. The typical profile consists of sand at 0 to 14 inches, loamy sand, fine sand, sand, and/or stratified gravelly sand to gravelly loamy sand at 14 to 34 inches. This soil type is considered somewhat excessively drained with typical depth to water table of more than 80 inches. It is rarely subject to flooding and not subject to ponding.

2.4 Hydrology

The existing concrete-lined flood control channel within the study area appears to contribute flow to the San Diego River and flows in a southeast to northwest direction before crossing under Mapleview Street via a culvert and continuing in a northwestern direction under SR 67 through a series of culverts and terminating in the San Diego River, which is a traditional navigable waterway (**Figure 1**). The concrete-lined flood control channel originates from Lindo Lake to the south and carries overflow from Lindo Lake as well as runoff from surrounding developed areas. The concrete-lined flood control channel is approximately 10 feet wide at the top and along the bottom, 10 feet deep, and 409 feet long and is lined with concrete.

The roadside ditch contributes flow to the concrete-lined flood control channel and flows in an east to west direction. The roadside ditch originates at a culvert north of Mapleview Street and just west of Ashwood Street and carries flows from surrounding developed areas. The roadside ditch travels through two steel-corrugated culverts that are approximately 6 feet wide before entering into the concrete-lined flood control channel to the west. The roadside ditch is approximately 3 to 6 feet wide, 2 feet deep, and 527 feet long.

The concrete-lined flood control channel and the roadside ditch are part of the Lower San Diego Watershed (1807030407) and are within the Los Coches Creek-San Diego River sub-watershed (180703040703) (USGS 2019). Historical aerials from as far back as 1964 and a historical USGS El Cajon 7.5-minute quadrangle from 1947 taken prior to development of the concrete-lined flood control channel and the roadside ditch, were reviewed and showed no sign of any drainage, ditch, or other waterway where these features are currently located or within the study area (USGS 1947, Historical Aerials.com 1964). Therefore, the concrete-lined flood control channel and roadside ditch are not a relocated tributary or excavated in a tributary and do not drain wetlands.

At the time of the field survey, the concrete-lined flood control channel contained wet, non-flowing areas and the roadside ditch was dry (**Appendix D, Photographs 1-5**). The water regime is believed to be intermittent or ephemeral within the concrete-lined flood control channel and ephemeral within the roadside ditch with brief seasonal flows primarily during storm events. The project site receives approximately 9 inches of rain annually with a majority of rains occurring in the period from October to February.

2.5 Climate

The Agricultural Applied Climate Information System (AgACIS) Wetlands (WETS) climate table for Lakeside 2 E, CA, is included below covering January 2014 through September 2019 (**Table 2-1**). The amount of precipitation in 2019 (15.05 inches) was higher than the average

precipitation over the last five years (11.98 inches). The amount of precipitation in June of 2019 (0.1 inches) was above the average precipitation for the month of June over the last five years (0.04 inches). Therefore, climatic and hydrologic conditions within the study area were not typical for the time of year (USDA 2019).

TABLE 2-1:
WETS TABLE: MONTHLY TOTAL PRECIPITATION FOR LAKESIDE 2E, CA

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2014	0.19	1.73	1.05	0.64	0	0	0.06	0.3	0	0	0.29	3.33	7.59
2015	1.15	0.9	1.27	0.27	1.73	0.17	0.83	0	0.72	0.56	1.32	2.11	11.03
2016	4.86	0.61	1.45	1.02	0.85	0	0	0	0.72	0.17	1.77	4.15	15.6
2017	5.43	5.69	0.29	0	1.47	0.03	0	0	0.14	0.06	0	0.08	13.19
2018	3.71	1.32	1.91	0.06	0.22	0	0	0	0	0.82	1.62	2.82	12.48
Mean (2014-2018)	**3.07**	**2.05**	**1.19**	**0.4**	**0.85**	**0.04**	**0.18**	**0.06**	**0.32**	**0.32**	**1.00**	**2.50**	**11.98**
2019	3.36	7.22	1.6	0.37	2.06	0.1	0	0	0.34				15.05
Mean	2.28	3.37	1.19	0.99	0.51	0.02	0.10	0.03	0.17	0.92	1.29	2.63	13.1

SOURCE: USDA, 2019.

3.0 Waters of the U.S.

3.1 Regulatory Framework

The U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA) have issued a set of guidance documents detailing the process for determining Clean Water Act (CWA) jurisdiction over waters of the United States (waters of the U.S.) following the 2008 Rapanos decision. The EPA and USACE issued a summary memorandum of the guidance for implementing the Supreme Court's decision in Rapanos that addresses the jurisdiction over waters of the U.S. under the CWA. The complete set of guidance documents, summarized as key points below, were used to collect relevant data for evaluation by the EPA and the USACE to determine CWA jurisdiction over the project and to complete the "significant nexus test" as detailed in the guidelines.

Section 401 of the CWA gives the state authority to grant, deny, or waive certification of proposed federally licensed or permitted activities resulting in discharge to waters of the U.S. The State Water Resources Control Board (State Water Board) directly regulates multi-regional projects and supports the Section 401 certification and wetlands program statewide. The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the federal CWA, which specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including but not limited to the construction or operation of facilities that may result in any discharge into navigable waters. The certification shall originate from the State or appropriate interstate water pollution control agency in/where the discharge originates or will originate. Any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA.

The significant nexus test includes consideration of hydrologic and ecologic factors. For circumstances such as those described in point B below, the significant nexus test would take into account physical indicators of flow (evidence of an ordinary high water mark [OHWM]), if a hydrologic connection to a Traditionally Navigable Water (TNW) exists, and if the aquatic functions of the water body have a significant effect (more than speculative or insubstantial) on the chemical, physical, and biological integrity of a TNW. The USACE and EPA will apply the significant nexus standard to assess the flow characteristics and functions of the tributary drainage to determine if it significantly affects the chemical, physical, and biological integrity of the downstream TNW.

Wetlands (including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas) are also considered waters of the U.S. and are defined by USACE as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE (Environmental Laboratory 1987).

Rapanos Guidance Key Points Summary

A. The USACE and EPA will assert jurisdiction over the following waters:
    - TNWs
    - Wetlands adjacent to TNWs
    - Non-navigable tributaries of TNWs that are relatively permanent (flows three months or longer)
        - Wetlands that abut such tributaries

B. The USACE and EPA will decide jurisdiction over the following waters based on whether they have a significant nexus with a TNW:
    - Non-navigable tributaries that are not relatively permanent
    - Wetlands adjacent to non-navigable tributaries that are not relatively permanent
    - Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

C. The USACE and EPA will not assert jurisdiction over the following waters:
    - Swales or erosional features (gullies, small washes characterized by low volume, infrequent, or short-duration flow)
    - Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The Navigable Waters Protection Rule was published by the USACE and EPA is scheduled to go into effect on June 22, 2020 but is anticipated to go into litigation soon thereafter. The Navigable Waters Protection Rule would redefine waters of the U.S. and place them into four distinct

categories including territorial seas and traditional navigable waters, perennial and intermittent tributaries to those waters, certain lakes, ponds, and impoundments, and wetlands adjacent to jurisdictional waters. In addition, the rule would also include 12 categories of exclusions such as ephemeral features, groundwater, many ditches, prior converted cropland and waste treatment systems. The rule would also help clarify key elements of the federal Clean Water Act jurisdiction by removing proposed separate categories for jurisdictional ditches and impoundments and refine or define terms such as "typical year" and "adjacent wetlands". Should implementation of the Navigable Waters Protection Rule go into effect, it is not anticipated to affect the findings of this report regarding the amount and extent of waters of the U.S.

3.2 Methodology

Prior to conducting the jurisdictional delineation, ESA conducted a review of available background information pertaining to the study area to obtain information on the hydrology, including information on the local geography and topography. Aerial maps (Google Earth 2019) were used to conduct a preliminary assessment of the limits of waters of the U.S./state and California Department of Fish and Wildlife (CDFW) jurisdictional areas in the study area. This information was verified in the field as described below. The following resources were reviewed:

- *The National Wetland Plant List*: 2016 wetland ratings (Lichvar et al. 2016).
- NRCS *Web Soil Survey*, queried to determine the soils that have been mapped within the study area (NRCS 2019).
- *Hydric Soils List of California*, 2016 (NRCS 2016).
- The National Wetlands Inventory (NWI) (USFWS 2019).
- USGS topographic maps: El Cajon 1947 and 2018 (USGS 1947 and 2018).
- Historical aerial photography: 1953, 1964, 1966, 1968 (Historical Aerials.com 2019).

The aquatic resources delineation was conducted for the study area by Ryan Villanueva and Lisa Maier on June 5, 2019.

USACE jurisdictional wetlands and waters were delineated based on the methodology and guidance in the USACE's *1987 Wetland Delineation Manual* (Lichvar et al. 1987), *Revised Guidance on Clean Water Act Jurisdiction Following the Supreme Court Decision in Rapanos v. U.S. and Carabell v. U.S.* (USACE 2008a), the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008b), *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), and *Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region* (Curtis et al. 2011). Datasheets used included: *Wetland Determination Data Form – Arid West Region* from the 2008 USACE Regional Supplement (USACE 2008b) and *Updated Datasheet for the Identification of the OHWM in the Arid Region of the Western United States* (USACE 2010). The Cowardin classification (Cowardin et al. 1979) of each feature type was also determined. The delineation was based on field data collected using a Trimble handheld GPS unit with sub-meter accuracy, and aerial imagery–based desktop mapping.

3.3 Results and Discussion

In summary, two aquatic resources were observed within the study area and included a concrete-lined flood control channel and a roadside ditch. The concrete-lined flood control channel originates south of Mapleview Street before crossing under Mapleview Street and heading west just north of Mapleview Street before going underground at Vine Street and SR 67. The concrete-lined flood control channel continues in a northwest direction through a series of culverts, terminating in the San Diego River. The roadside ditch is located to the north of Mapleview Street, originates from a culvert just west of Ashwood Street, and terminates to the west in the concrete-lined flood control channel. Both of these features are connected via underground culvert. A roadside gully, which could be mistaken for an aquatic resource, occurs at the eastern end of the study area and north of Mapleview Street where several culverts are located under private driveways. The gully is located within undeveloped areas between Mapleview Street and residential areas to the north of Mapleview Street in the eastern portion of the study area. Based on a review of the NWI, there are no riverine, riparian, or wetland features mapped within the study area.

Aquatic resources delineated within the study area include potential waters of the U.S. and potential exempt aquatic features per the Rapanos Decision (**Figures 5a** and **5b**). **Table 3-1** summarizes the data collected for each feature. Data sheets are provided in **Appendix C** and representative photographs of each feature are included in **Appendix D**.

TABLE 3-1:
AQUATIC RESOURCES WITHIN THE STUDY AREA

Feature	Cowardin Type[a]	Wetland Waters of the U.S. (Acre)	Non-Wetland Waters of the U.S. (Acre)	Exempt Aquatic Features[b] (Acre)	Length (Linear Feet)	OHWM[c]	Vegetation/ Land Cover	Location
Roadside ditch[b]	R4SBEx	N/A	N/A	0.05	527	3–6 feet	Non-Native Grassland: Broadleaf-Dominated	32.863594°, -116.918891°
Concrete-lined flood control channel	R4SBEx	0	0.10	N/A	409	10 feet	Urban/Developed	32.863409°, -116.920588°
Totals[d]:			**0.10**	**0.05**	**936**			

a. Cowardin Classifications (Cowardin et al. 1979):
R4SBEx = Riverine; Intermittent; Streambed; Seasonally Flooded/Saturated; Excavated.

b. Exempt per Rapanos Decision.

c. Average width of OHWM in feet.

d. Totals may not sum exactly due to rounding.

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SOURCE: ESRI, 2020

Mapleview Jurisdictional Delineation

Figure 5a
Waters of the U.S.
Overview

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SOURCE: ESRI, 2020.

Mapleview Jurisdictional Delineation

Figure 5b
Waters of the U.S.
Inset

ESA

3.3.1 Wetland Waters of the U.S.

The concrete-lined flood control channel generally lacks vegetation with the exception of limited amounts of Italian rye (FAC). Small patches of soil that have accumulated within the channel are shallow with an estimated depth of 2 inches and the channel is lined with concrete. Saturation was present within the limited soils that occurs within the concrete-lined flood control channel as well as other portions of the concrete-lined flood control channel. Although no sample points were taken within the concrete-lined flood control channel, small, sporadic portions of the concrete-lined flood control channel would have likely passed the parameters for wetland vegetation as hydrophytic vegetation was present. It is unlikely to pass the wetland parameter for soils due to the overall lack of soils and presence of a concrete lining. However, it would have met the parameters for wetland hydrology as a primary indicator was present within the channel and consisted of saturation (A3). Therefore, the concrete-lined flood control channel is not considered wetland waters of the U.S.

Two sample points were taken within the roadside ditch along with paired sample points within adjacent upland areas. Sample points within the ditch met the wetland parameters for hydrology containing saturation (A3), water marks (B1), and drainage patterns (B10) but lacked wetland soils and vegetation indicators and therefore are not considered wetland waters of the U.S. Upland sample points lacked wetland indicators for vegetation, soil, and hydrology. Wetland waters of the U.S. were absent from the study area.

3.3.2 Non-Wetland Waters of the U.S.

Potential non-wetland waters of the U.S. within the study area are limited to the concrete-lined flood control channel. OHWM indicators observed during the field delineation included staining and saturated soils/concrete and averaged 10 feet wide. The concrete-lined flood control channel is considered non-wetland waters of the U.S. per the Rapanos Guidance as it contains relatively permanent flow and is a tributary to the San Diego River. Therefore, the concrete-lined flood control channel is a potential non-wetland waters of the U.S. and is mapped in **Figures 5a** and **5b**. OHWM data sheets are included in **Appendix C** and photographs are provided in **Appendix D**.

3.3.3 Non-Jurisdictional Features

The gully lacked an OHWM, showed no signs of water flow, and vegetation was limited to non-native grassland: broadleaf-dominated. There was also evidence of small mammal burrowing in and around the bottom and sides of the gully, further supporting the lack of OHWM. The gully is located near the top of a small hump in the terrain and likely does not have enough surrounding drainage area to accumulate flows within the gully.

OHWM indicators observed within the roadside ditch included wrack line and break in slope, and averaged 4 feet wide. The roadside ditch is a tributary to the concrete-lined flood control channel. However, it is not considered waters of the U.S. under the Rapanos Guidance as it is an ephemeral roadside ditch created in uplands that lacks relatively permanent flow (intermittent).

Based on review of the 1947 USGS quadrangle for El Cajon and 1964 historical aerial photo, the roadside ditch was determined to be excavated in uplands since the images did not indicate

tributaries or other waterways were present historically where the roadside ditch is currently located. Therefore, the roadside ditch is potentially excluded from regulation under Section 404 of the CWA based on the Rapanos Decision, as it is a roadside ditch lacking a relatively permanent flow of water and was excavated wholly in and draining only uplands. The roadside ditch is mapped as a potential non-jurisdictional feature as depicted on **Figures 5a** and **5b**. Preliminary jurisdictional determination forms are included as **Appendix E**. Historic aerial photographs are included as **Appendix F**.

3.4 Impacts to Waters of the U.S.

As part of project activities, neither permanent nor temporary impacts to waters of the U.S. are anticipated to occur. Therefore, a Section 404 Clean Water Act permit is not anticipated for the project.

4.0 Waters of the State

4.1 Regulatory Framework

Most projects involving water bodies or drainages are regulated by the RWQCB, the principal State agency overseeing water quality of the state at the local/regional level. The project site is located within the jurisdiction of the San Diego RWQCB.

Under the Porter-Cologne Water Quality Control Act, the RWQCB regulates all waters of the state that are not considered to be dual-jurisdiction waters of the U.S. Waters of the state are defined as all surface water or groundwater, including saline waters, within the boundaries of the state. Under this act, the State Water Board and RWQCBs use National Pollutant Discharge Elimination System (NPDES) permits for point source discharges and waste discharge requirements (WDRs) in order to prevent water quality degradation. This section of the report focuses on waters of the state regulated under the Porter-Cologne Water Quality Control Act. Where waters of the state overlap with waters of the U.S., pending verification from the USACE, those waters would be regulated under Section 401 of the CWA.

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (procedures), as prepared by the State Water Resources Control Board, was implemented on May 28, 2020. The procedures include a definition for wetland waters of the state that include 1) all wetland waters of the U.S.; and 2) aquatic resources that meet both the soils and hydrology criteria for wetland waters of the U.S. but lack vegetation.[5] The implementation of the procedures does not affect the findings of this report regarding the amount and extent of waters of the state.

[5] Less than 5 percent areal coverage at the peak of the growing season.

4.2 Methodology

Waters of the state, including waters of the U.S. and non-federal waters that may be regulated as a surface water of the state under the Porter-Cologne Water Quality Control Act, were delineated using the same methodology as waters of the U.S.

4.3 Results and Discussion

Waters of the state included a roadside ditch and concrete-lined flood control channel, both of which contained an OHWM indicating signs of surface flows. As discussed in Section 3.3.3, wetland waters were determined to be absent from the study area. Waters of the state are depicted in **Figures 6a** and **6b** and results from the field delineation are summarized in **Table 4-1**.

TABLE 4-1:
WATERS OF THE STATE WITHIN THE STUDY AREA

Feature	Cowardin Type	Wetland Waters of the State (Acre)	Other Waters of the State (Acre)	Length (Linear Feet)	OHWM[a]	Vegetation/Land Cover	Location
Roadside ditch	R4SBEx	0	0.05	527	3–6 feet	Non-Native Grassland: Broadleaf-Dominated	32.863594°, -116.918891°
Concrete-lined flood control channel	R4SBEx	0	0.10	409	10 feet	Urban/Developed	32.863409°, -116.920588°
Totals:		**0**	**0.15**	**936**			

a. Average width of OHWM in feet.

4.4 Impacts to Waters of the State

The roadside ditch and concrete-lined flood control channel are considered waters of the state because they are surface waters within the boundaries of the state. Similar to waters of the U.S., the extent of waters of the state is based on the lateral limits of the OHWM as determined in the field. If the USACE verifies the roadside ditch is not a water of the U.S., this feature may be regulated as a surface water of the state under the Porter-Cologne Water Quality Control Act based on the presence of an OHWM.

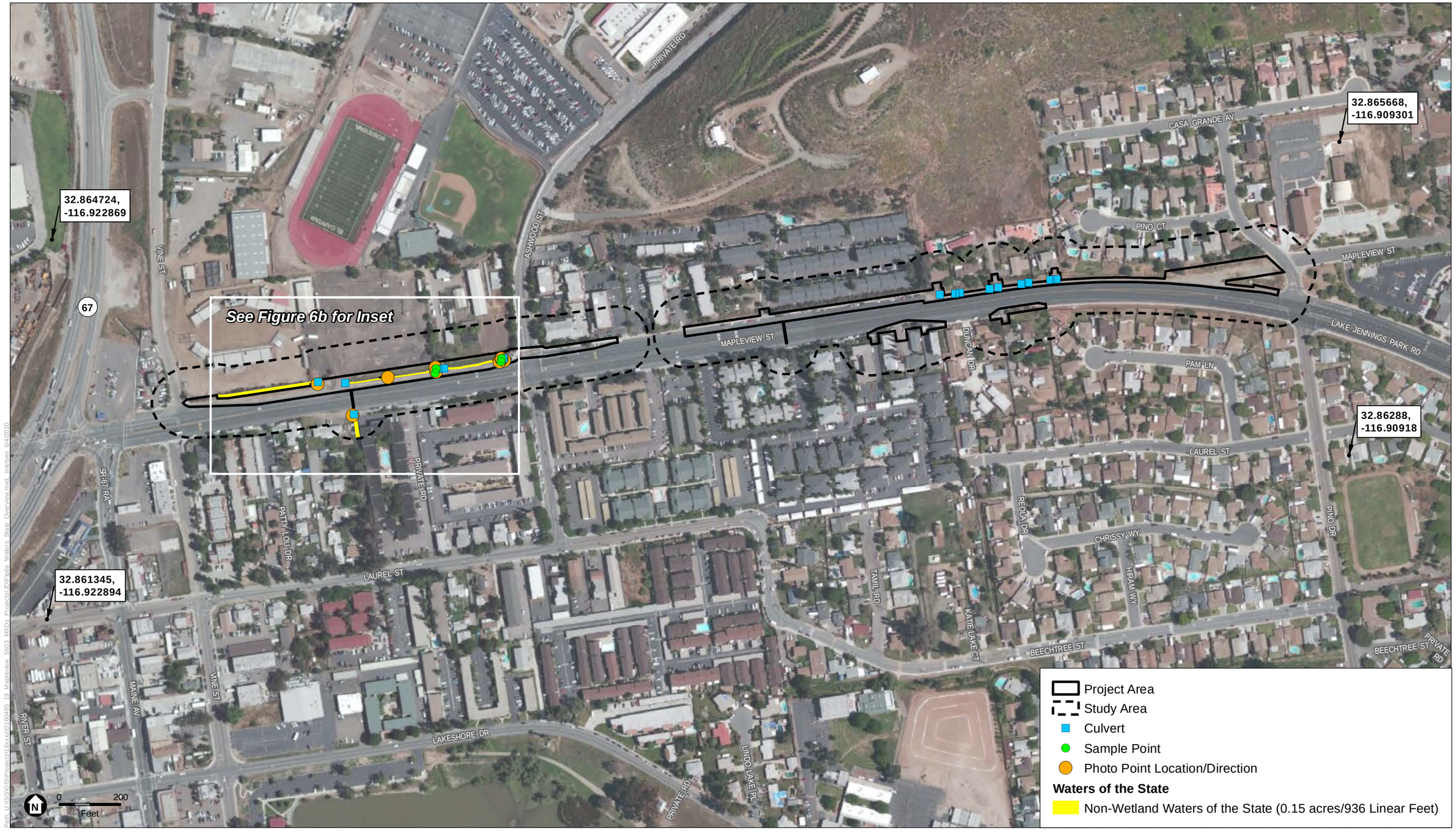
As part of project activities, impacts to potential waters of the state are anticipated to occur. Anticipated impacts include temporary impacts to the roadside ditch, and a small amount of permanent impact to the roadside ditch. No impacts are anticipated to the concrete-lined flood control channel. Anticipated impacts are depicted in **Table 4-2**.

It is anticipated that a WDR may be required for impacts to the roadside ditch. As part of the project design, improvements to the existing roadside ditch will occur and will include the widening and revegetation of the impacted area. It is anticipated that the expansion of the roadside ditch will result in a net gain of waters of the state such that no net loss of waters of the

state will occur and no compensatory mitigation is expected. Further, the proposed bioswale improvements are designed to improve water quality within and downstream of the study area.

TABLE 4-2:
IMPACT SUMMARY TO WATERS OF THE STATE WITHIN THE STUDY AREA

		Non-Wetland Waters of the State (Acres/Linear Feet)			
Feature	**Cowardin Type**	**Permanent**	**Temporary**	**Vegetation/Land Cover**	**Location**
Roadside ditch	R4SBEx	<0.01/31	0.04/494	Non-Native Grassland: Broadleaf-Dominated	32.863594°, -116.918891°
Concrete-lined flood control channel	R4SBEx	0/0	0/0	Urban/Developed	32.863409°, -116.920588°
Totals:		**<0.01/31**	**0.04/494**		



Path: U:\GIS\GIS\Projects\16xxx\D160465_19 Mapleview St\03 MXDs Projects\JD\Fig6a Waters State Overview.mxd jnielsen 6/4/2020

SOURCE: ESRI, 2020.

Mapleview Jurisdictional Delineation

Figure 6a
Waters of the State
Overview

ESA

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SOURCE: ESRI, 2020.

Mapleview Jurisdictional Delineation

Figure 6b
Waters of the State
Inset

ESA

5.0 Lakes, Streams, and Associated Wetlands

5.1 Regulatory Framework

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Game Code (FGC), CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife. A notification of a Lake or Streambed Alteration Agreement (LSAA) must be submitted to CDFW for "any activity that may substantially change the bed, channel, or bank of any river, stream, or lake." In addition, CDFW has jurisdiction over wetland and riparian habitats associated with watercourses. The CDFW reviews proposed actions, and if necessary submits to the applicant a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the LSAA.

5.2 Methodology

Areas potentially subject to Section 1600 et seq. of the FGC were delineated based on the presence of features that meet CDFW's broadly applied interpretation of stream and lakes, including areas that exhibit regular and natural ponding and drainage features that exhibit a bed and bank. Areas potentially subject to Section 1600 et seq. of the FGC are also applied to include associated riparian areas, including floodplains, streambanks up to the top of bank (for natural channel banks), and associated wetlands and riparian vegetation to the outer dripline.

5.3 Results and Discussion

Locations within the study area that are potentially subject to CDFW notification requirements under FGC Section 1600 et seq. include all potential waters of the state. The study area lacked riparian vegetation and therefore jurisdiction was limited to the roadside ditch and concrete-lined flood control channel as they both exhibited a bed and bank and are subject to seasonal flows primarily fed by storm events. Due to the presence of non-native grassland: broadleaf dominated vegetation within the roadside ditch, it is considered a vegetated streambed. Due to the absence of vegetation and presence of concrete lining (urban/developed), the concrete-lined flood control channel is considered an unvegetated streambed. Areas potentially subject to Section 1600 et seq. of the FGC are depicted in **Figures 7a** and **7b** and **Table 5-1**.

TABLE 5-1:
POTENTIAL AREAS SUBJECT TO FGC SECTION 1600 ET SEQ WITHIN THE STUDY AREA

Feature	Cowardin Type	CDFW Limit Vegetated Streambed (Acre)	CDFW Limit Acres Unvegetated Streambed (Acre)	Length (Linear Feet)	Average Stream Width (Feet)	Vegetation/ Land Cover	Location
Roadside ditch	R4SBEx	0.05	0	527	6	Non-Native Grassland: Broadleaf-Dominated	32.863594°, -116.918891°
Concrete-lined flood control channel	R4SBEx	0	0.10	409	10	Urban/ Developed	32.863409°, -116.920588°
Totals:		**0.05**	**0.10**	**936**			

5.4 Impacts to Areas Subject to FGC Section 1600 et seq.

As part of project activities, impacts to areas subject to FGC Section 1600 are anticipated to occur. Anticipated impacts include temporary impacts to the roadside ditch and a small amount of permanent impact to the roadside ditch. Anticipated impacts are depicted in **Table 5-2**.

TABLE 5-2:
IMPACT SUMMARY TO AREAS SUBJECT TO FGC SECTION 1600 ET SEQ. WITHIN THE STUDY AREA

		CDFW Limit Vegetated Streambed (Acres/Linear Feet)		CDFW Limit Unvegetated Streambed (Acres/Linear Feet)			
Feature	**Cowardin Type**	**Permanent**	**Temporary**	**Permanent**	**Temporary**	**Vegetation/Land Cover**	**Location**
Roadside ditch	R4SBEx	<0.01/31	0.04/494	0/0	0/0	Non-Native Grassland: Broadleaf-Dominated	32.863594°, -116.918891°
Concrete-lined flood control channel	R4SBEx	0/0	0/0	0/0	0/0	Urban/Developed	32.863409°, -116.920588°
Totals:		**<0.01/31**	**0.04/494**	**0/0**	**0/0**		

It is anticipated that an LSAA may be required for impacts to the roadside ditch. As part of the project design, improvements to the existing roadside ditch will occur and will include the widening and revegetation of the impacted area. It is anticipated that the expansion of the roadside ditch will result in a net gain of streambed such that no net loss of streambed will occur and no mitigation is expected. Further, the proposed bioswale improvements are designed to improve water quality within and downstream of the study area.

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SOURCE: ESRI, 2020.

Mapleview Jurisdictional Delineation

Figure 7a
Areas Subject to FGC 1600 et seq.
Overview

ESA

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SOURCE: ESRI, 2020.

Mapleview Jurisdictional Delineation

Figure 7b
Areas Subject to FGC Section 1600 et seq.
Inset

ESA

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Appendix A
Assessor's Parcel Numbers

Assessor's Parcel Number (APN)	Assessor's Parcel Number (APN)	Assessor's Parcel Number (APN)	Assessor's Parcel Number (APN)
3921202700	3940613713	3944804410	3952602200
3921203600	3940613714	3944804411	3952602300
3921203700	3940613715	3944804412	3952602400
3921402500	3940613716	3944804413	3952606400
3921404700	3940613717	3944804414	3952606500
3921800100	3940613718	3944804415	3952606800
3921800200	3940613719	3944804416	3952606900
3921800300	3940613720	3944804417	3952607000
3921800400	3940613721	3944804418	3952607500
3921800500	3940613722	3944804419	3952607600
3921800600	3940613723	3944804420	3952800100
3921800700	3940613724	3944804601	3952800200
3921800800	3940613725	3944804602	3952800600
3921800900	3940613726	3944804603	7601411100
3921804300	3940613727	3944804604	7601411200
3921804500	3940613728	3944804605	7601411600
3921804600	3940613729	3944804606	7739212001
3921804700	3940613730	3944804607	7739212002
3921804800	3940620300	3944804608	
3921804900	3940620900	3944804609	
3921805000	3940621000	3944804610	
3921805100	3944800200	3944804611	
3940331800	3944800600	3944804612	
3940611900	3944801700	3944804613	
3940612000	3944802000	3944804614	
3940612300	3944802400	3944804900	
3940612400	3944803100	3944805000	
3940613500	3944803300	3944805100	
3940613701	3944803800	3950142000	
3940613702	3944803900	3952600100	
3940613703	3944804300	3952600200	
3940613704	3944804401	3952600300	
3940613705	3944804402	3952601400	
3940613706	3944804403	3952601500	
3940613707	3944804404	3952601600	
3940613708	3944804405	3952601700	
3940613709	3944804406	3952601800	
3940613710	3944804407	3952601900	
3940613711	3944804408	3952602000	
3940613712	3944804409	3952602100	

Appendix B
Plant Species Compendium

Appendix B: Plant Species Compendium

Scientific Name	Common Name	Wetland Indicator Status
CONIFERAE		
Pinaceae – Pine family		
Pinus sp.	pine tree	N/A
EUDICOTS		
Anacardiaceae - Cashew family		
Malosma laurina	laurel sumac	NL
* *Schinus molle*	Peruvian pepper tree	FACU
* *Schinus terebinthifolius*	Brazilian pepper tree	FAC
Asteraceae - Sunflower family		
* *Baccharis sarothroides*	broom baccharis	FACU
* *Centaurea melitensis*	tocalote	NL
* *Erigeron canadensis*	Canada horseweed	FACU
* *Helianthus annuus*	annual sunflower	FACU
* *Pseudognaphalium luteoalbum*	Jersey cudweed	FAC
* *Sonchus oleraceus*	sow thistle	UPL
Bignoniaceae – Bigonia family		
* *Jacaranda mimosifolia*	black poui	NL
Boraginaceae - Borage family		
Amsinckia sp.	fiddleneck	FACU/NL
Brassicaceae - Mustard family		
* *Hirschfeldia incana*	Shortpod mustard	NL
* *Raphanus sativus*	wild radish	NL
* *Sisymbrium irio*	London rocket	NL
Chenopodiaceae - Goosefoot family		
* *Chenopodium* sp.	Goosefoot	N/A
* *Salsola tragus*	Russian thistle	NL
Euphorbiaceae- Spurge family		
Croton setiger	turkey-mullein	NL
* *Euphorbia maculate*	spotted spurge	UPL
Fagaceae – Beech family		
Quercus agrifolia	coast live oak	NL
Geraneaceae – Geranium family		
* *Erodium cicutarium*	red-stemmed filaree	NL

Scientific Name	Common Name	Wetland Indicator Status
Myrtaceae– Myrtle Family		
Callistemon citrinus	crimson bottlebrush	NL
Polygonaceae - Buckwheat family		
Eriogonum fasciculatum	California buckwheat	NL
Persicaria lapathifolia	common knotweed	FACW
Solanaceae- Nightshade family		
* *Nicotiana glauca*	tree tobacco	FAC
* *Solanum sp.*	Nightshade	N/A
Zygophyllaceae - Caltrop family		
Tribulus terrestris	puncture vine	NL
MONOCOTS		
Arecaceae - Palm family		
* *Washingtonia robusta*	Mexican fan palm	FACW
Liliaceae - Lily family		
Yucca sp.	Yucca	NL
Poaceae - Grass family		
Avena fatua	wild oat	NL
* *Bromus madritensis* ssp. *rubens*	red brome	UPL
* *Cynodon dactylon*	Bermuda grass	FACU
* *Festuca perennis*	Italian rye grass	FAC
* *Lamarckia aurea*	goldentop grass	FACU
* *Melinis repens*	natal grass	UPL
* *Paspalum dilatatum*	dallis grass	FAC
* *Pennisetum setaceum*	fountaingrass	NL

Legend

*= Non-native or invasive species

Wetland Indicator Status:

Obligate (OBL) – plants that always occur in standing water or in saturated soils

Facultative Wet FACW – plants that nearly always occur in areas in prolonged flooding or require standing water or saturated soils but may, on rare occasions, occur in non-wetlands

Facultative (FAC) – plants that occur in a variety of habitats, including wetland and mesic to xeric non-wetland habitats but commonly occur in standing water or saturated soils

Facultative Upland (FACU) – plants that typically occur in xeric or mesic non-wetland habitats but may frequently occur in standing water or saturated soils

Upland (UPL) – plants that almost never occur in water or saturated soils.

Not Listed (NL) – plants that are not listed; are considered UPL for wetland delineation purposes.

N/A – plant not identified to species; status not attained.

Appendix C

Wetland Determination Data Forms and OHWM Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Mapleview Street Green Streets Project City/County: Lakeside/San Diego Sampling Date: 3/21/2019
Applicant/Owner: County of San Diego State: CA Sampling Point: 1a
Investigator(s): Ryan Villanueva, Lisa Maier Section, Township, Range:
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2
Subregion (LRR): C Lat: -116.9188227 Long: 32.86360668 Datum: WGS 84
Soil Map Unit Name: Grangeville fine sandy loam, 0 to 2 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ___ (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes **x** No ___
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ___ No x
Hydric Soil Present? Yes ___ No x **Is the Sampled Area**
Wetland Hydrology Present? Yes x No ___ **within a Wetland?** **Yes** ___ **No** **x**

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5' x 10')			
1. *Helianthus annuus*	75	yes	FACU
2. *Erigeron canadensis*	10	no	FACU
3. *Sonchus oleraceus*	5	no	UPL
4. *Paspalum dilatatum*	5	no	FAC
5. *Euphorbia maculate*	5	no	UPL
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1=	0
FACW species		x 2=	0
FAC species	5	x 3=	15
FACU species	85	x 4=	340
UPL species	10	x 5=	50
Column Totals:	100 (A)		405 (B)

Prevalence Index = B/A = 4.05

Hydrophytic Vegetation Indicators:

___ 1- Rapid Test For Hydrophytic Vegetation
___ 2- Dominance Test is >50%
___ 3- Prevalence Index is ≤3.0[1]
___ 4- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5- Wetland Non-Vascular Plants[1]
___ 6- Problematic Hydrophytic Vegetation[1](Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** **x**

Remarks:

SOIL Sampling Point: 1a

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	7.5YR 3/2	100	N/A				clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be presetn, unless disturbed or problematic

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

- x Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- x 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 x No ___ Depth (Inches): 0-20

(includes capillary fringe)

Wetland Hydrology Present? **Yes** x **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Mapleview Street Green Streets Project City/County: Lakeside/San Diego Sampling Date: 3/21/2019
Applicant/Owner: County of San Diego State: CA Sampling Point: 1b
Investigator(s): Ryan Villanueva, Lisa Maier Section, Township, Range:
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2
Subregion (LRR): C Lat: -116.918834 Long: 32.86356616 Datum: WGS 84
Soil Map Unit Name: Grangeville fine sandy loam, 0 to 2 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ___ (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes **x** No ___
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes		No	x		
Hydric Soil Present?	Yes		No	x	**Is the Sampled Area**	
Wetland Hydrology Present?	Yes		No	x	**within a Wetland?**	**Yes** ___ **No** **x**

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5' x 10')			
1. *Hirschfeldia incana*	60	yes	NL
2. *Erigeron canadensis*	30	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species		x 1=	0
FACW species		x 2=	0
FAC species		x 3=	0
FACU species	30	x 4=	120
UPL species	60	x 5=	300
Column Totals:	90 (A)		420 (B)

Prevalence Index = B/A = 4.666666667

Hydrophytic Vegetation Indicators:

___ 1- Rapid Test For Hydrophytic Vegetation
___ 2- Dominance Test is >50%
___ 3- Prevalence Index is ≤3.0[1]
___ 4- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5- Wetland Non-Vascular Plants[1]
___ 6- Problematic Hydrophytic Vegetation[1](Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** **x**

Remarks:

SOIL Sampling Point: 1b

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	7.5YR 4/2	100					loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be presetn, unless disturbed or problematic

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Mapleview Street Green Streets Project City/County: Lakeside/San Diego Sampling Date: 3/21/2019
Applicant/Owner: County of San Diego State: CA Sampling Point: 2a
Investigator(s): Ryan Villanueva, Lisa Maier Section, Township, Range:
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2
Subregion (LRR): C Lat: -116.9181325 Long: 32.86369939 Datum: WGS 84
Soil Map Unit Name: Grangeville fine sandy loam, 0 to 2 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ___ (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes **x** No ___
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No x				
Hydric Soil Present?	Yes ___	No x	**Is the Sampled Area**			
Wetland Hydrology Present?	Yes x	No ___	**within a Wetland?**	**Yes** ___	**No** **x**	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5' x 10')			
1. *Helianthus annuus*	50	yes	FACU
2. *Hirschfeldia incana*	5	no	NL
3. *Sonchus oleraceus*	5	no	UPL
4. *Solanum sp.*	20	no	
5. *Festuca perennis*	5	yes	NL
6.			
7.			
8.			
9.			
10.			
11.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1=	0
FACW species		x 2=	0
FAC species		x 3=	0
FACU species	50	x 4=	200
UPL species	15	x 5=	75
Column Totals:	65 (A)		275 (B)

Prevalence Index = B/A = 4.230769231

Hydrophytic Vegetation Indicators:

___ 1- Rapid Test For Hydrophytic Vegetation
___ 2- Dominance Test is >50%
___ 3- Prevalence Index is ≤3.0[1]
___ 4- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5- Wetland Non-Vascular Plants[1]
___ 6- Problematic Hydrophytic Vegetation[1](Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** **x**

Remarks:

SOIL Sampling Point: 2a

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	7.5YR 3/1	100					sandy clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be presetn, unless disturbed or problematic

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

- x Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- x 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 x No ___ Depth (Inches): 0-20

(includes capillary fringe)

Wetland Hydrology Present? **Yes** x **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Mapleview Street Green Streets Project City/County: Lakeside/San Diego Sampling Date: 3/21/2019
Applicant/Owner: County of San Diego State: CA Sampling Point: 2b
Investigator(s): Ryan Villanueva, Lisa Maier Section, Township, Range:
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2
Subregion (LRR): C Lat: -116.9181411 Long: 32.86367422 Datum: WGS 84
Soil Map Unit Name: Grangeville fine sandy loam, 0 to 2 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ___ (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes **x** No ___
Are Vegetation ___ Soil ___ or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No x				
Hydric Soil Present?	Yes ___	No x	**Is the Sampled Area**			
Wetland Hydrology Present?	Yes ___	No x	**within a Wetland?**	**Yes** ___	**No** x	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5' x 10')			
1. *Hirschfeldia incana*	80	yes	NL
2. *Erigeron canadensis*	15	no	FACU
3. *Euphorbia maculate*	5	no	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species		x	1=	0
FACW species		x	2=	0
FAC species		x	3=	0
FACU species	15	x	4=	60
UPL species	90	x	5=	450
Column Totals:	105 (A)			510 (B)

Prevalence Index = B/A = 4.857142857

Hydrophytic Vegetation Indicators:

___ 1- Rapid Test For Hydrophytic Vegetation
___ 2- Dominance Test is >50%
___ 3- Prevalence Index is ≤3.0[1]
___ 4- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5- Wetland Non-Vascular Plants[1]
___ 6- Problematic Hydrophytic Vegetation[1](Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks:

SOIL Sampling Point: 2b

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	7.5YR 2.5/3	100					clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be presetn, unless disturbed or problematic

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

OHWM Delineation Cover Sheet

Project: Mapleview Street **Date:** 6/5/19

Location: Lakeside, CA **Investigator(s):** Ryan Villanueva, Lisa Maier

Project Description:

Conduct improvements along Mapleview Street from Vine Street to Pino Drive.

Describe the river or stream's condition (disturbances, in-stream structures, etc.):

The feature is a roadside ditch with no in-stream structures. It is likely maintained in periods of heavy vegetation growth. It originates from a culvert at Ashwood Street before heading west, flowing through two culverts and into an unnamed concrete-lined ditch.

Off-site Information

Remotely sensed image(s) acquired? ☑ **Yes** ☐ **No** [If yes, attach image(s) to datasheet(s) and indicate approx. locations of transects, OHWM, and any other features of interest on the image(s); describe below] Description:

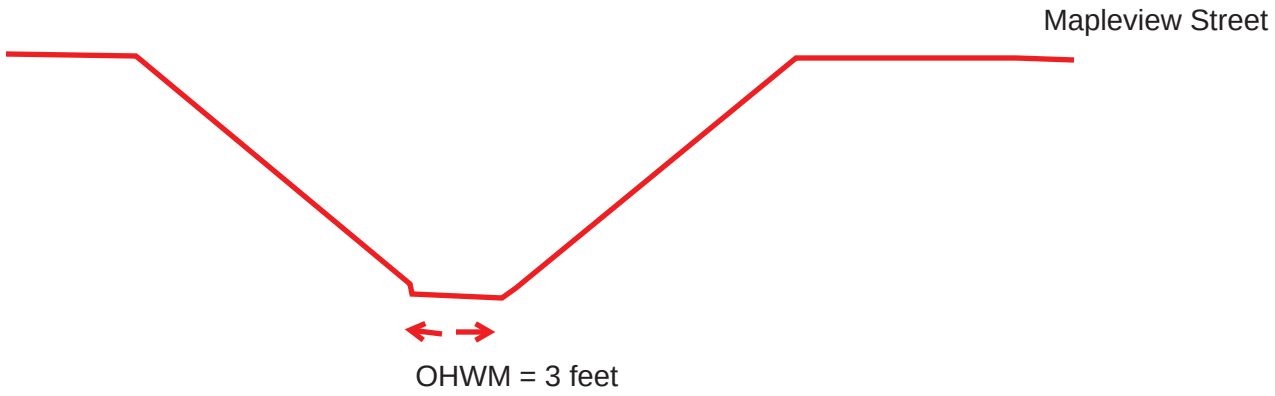
Google earth aerial imagery. Figures included in the jurisdictional delineation report.

Hydrologic/hydraulic information acquired? ☐ **Yes** ☑ **No** [If yes, attach information to datasheet(s) and describe below.] Description:

List and describe any other supporting information received/acquired:

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS coordinates noted on the datasheet.

Transect (cross-section) drawing: (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)



Break in Slope at OHWM: ☐ Sharp (> 60°) | ☑ Moderate (30–60°) | ☐ Gentle (< 30°) | ☐ None

Notes/Description:

Sediment Texture: Estimate percentages to describe the general sediment texture above and below the OHWM

	Clay/Silt <0.05mm	Sand 0.05 – 2mm	Gravel 2mm – 1cm	Cobbles 1 – 10cm	Boulders >10cm	Developed Soil Horizons (Y/N)
Above OHWM	80	20				
Below OHWM	30	30	30	10		

Notes/Description:

Vegetation: Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM			50	50
Below OHWM			10	90

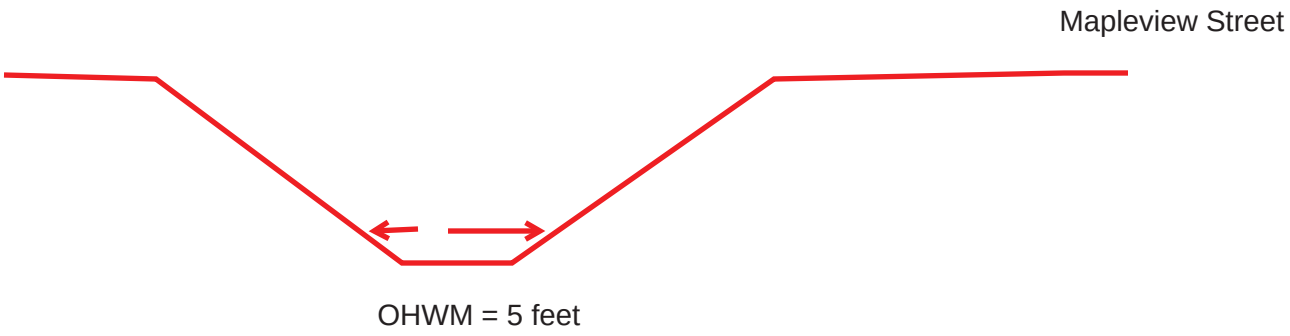
Notes/Description:

Horseweed, shortpod mustard above and below OHWM.

Other Evidence: List/describe any additional field evidence and/or lines of reasoning used to support your delineation

Drainage pattern, sediment deposition, culvert upstream and downstream.

Transect (cross-section) drawing: (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)



Break in Slope at OHWM: ☐ Sharp (> 60°) | ☑ Moderate (30–60°) | ☐ Gentle (< 30°) | ☐ None

Notes/Description:

Sediment Texture: Estimate percentages to describe the general sediment texture above and below the OHWM

	Clay/Silt <0.05mm	Sand 0.05 – 2mm	Gravel 2mm – 1cm	Cobbles 1 – 10cm	Boulders >10cm	Developed Soil Horizons (Y/N)
Above OHWM	90		10			
Below OHWM	100					

Notes/Description:

Vegetation: Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM			80	20
Below OHWM			100	

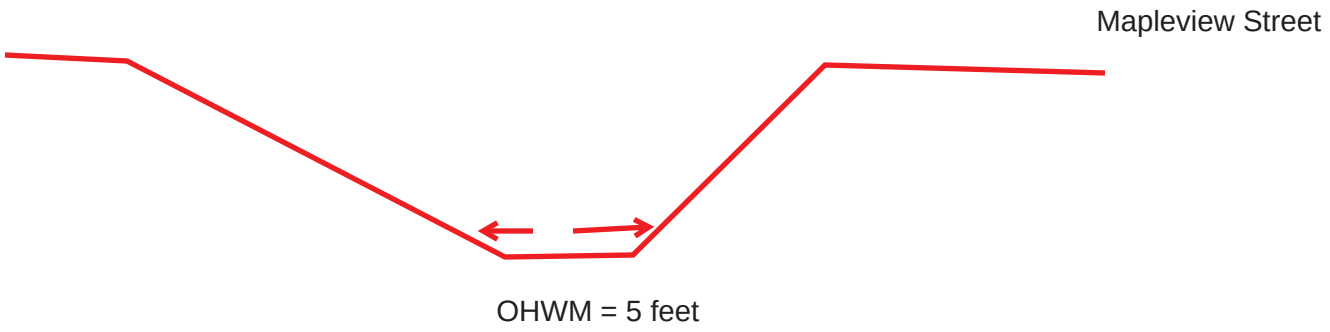
Notes/Description:

Horseweed, shortpod mustard above.
Horseweed, annual sunflower below.

Other Evidence: List/describe any additional field evidence and/or lines of reasoning used to support your delineation

Water stained leaves, downstream of culvert.

Transect (cross-section) drawing: (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)



Break in Slope at OHWM: ☐ Sharp (> 60°) | ☑ Moderate (30–60°) | ☐ Gentle (< 30°) | ☐ None

Notes/Description:

Sediment Texture: Estimate percentages to describe the general sediment texture above and below the OHWM

	Clay/Silt <0.05mm	Sand 0.05 – 2mm	Gravel 2mm – 1cm	Cobbles 1 – 10cm	Boulders >10cm	Developed Soil Horizons (Y/N)
Above OHWM	95		5			
Below OHWM	100					

Notes/Description:

Vegetation: Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM			50	50
Below OHWM			100	

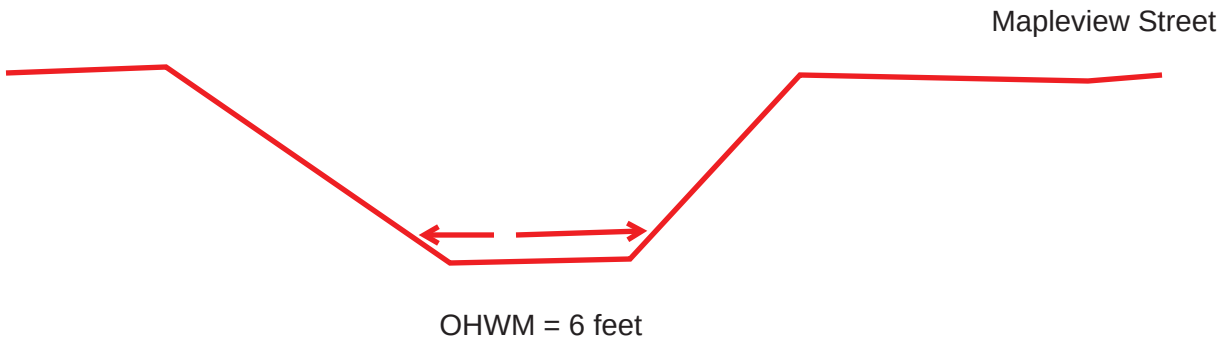
Notes/Description:

Horseweed, shortpod mustard above.
Annual sunflower below

Other Evidence: List/describe any additional field evidence and/or lines of reasoning used to support your delineation

water staining, drainage patterns

Transect (cross-section) drawing: (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)



Break in Slope at OHWM: ☐ Sharp (> 60°) | ☑ Moderate (30–60°) | ☐ Gentle (< 30°) | ☐ None

Notes/Description:

Sediment Texture: Estimate percentages to describe the general sediment texture above and below the OHWM

	Clay/Silt <0.05mm	Sand 0.05 – 2mm	Gravel 2mm – 1cm	Cobbles 1 – 10cm	Boulders >10cm	Developed Soil Horizons (Y/N)
Above OHWM	100					
Below OHWM	100					

Notes/Description:

Vegetation: Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM			90	10
Below OHWM			95	5

Notes/Description:

Shortpod mustard above.

Annual sunflower, shortpod mustard, nightshade, sonchus below.

Other Evidence: List/describe any additional field evidence and/or lines of reasoning used to support your delineation

water staining, drainage patterns.

Appendix D
Photographic Log

Photograph 1 – Concrete-lined ditch north of Mapleview Street, facing west.

Photograph 2 – Concrete-lined ditch south of Mapleview Street, facing south.

Photograph 3 – Ditch 1 starting point. Culvert west of Ashwood Street and north of Mapleview Street, facing east.

Photograph 4 – Ditch 1 facing west

Photograph 5 – Ditch 1 facing west

Photograph 6 – Sample point 1a

Photograph 7 – Sample Point 1b.

Photograph 8 – Sample Point 2a.

Photograph 9 – Sample Point 2b.

Appendix E

Preliminary Jurisdictional Determination

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here Los Angeles District

- I am requesting a JD on property located at: N/A
  (Street Address)
  City/Township/Parish: Lakeside County: San Diego State: CA
  Acreage of Parcel/Review Area for JD: 13.04
  Section: 17, 18 Township: 15S Range: 1E
  Latitude (decimal degrees): 32.863561 Longitude (decimal degrees): -116.917775
  (For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☐ I currently own this property. ☐ I plan to purchase this property.
  ☐ I am an agent/consultant acting on behalf of the requestor.
  ☑ Other (please explain): easement.
- Reason for request: (check as many as applicable)
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  ☑ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
  ☐ A Corps JD is required in order to obtain my local/state authorization.
  ☑ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
  ☐ I believe that the site may be comprised entirely of dry land.
  ☐ Other:
- Type of determination being requested:
  ☐ I am requesting an approved JD.
  ☑ I am requesting a preliminary JD.
  ☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: Date: 7/19/19

- Typed or printed name: Keshia Montifolca
  Company name: County of San Diego - Dept. of Public Works
  Address: 5510 Overland Ave., Suite 410
  San Diego, CA 92123
  Daytime phone no.: (858)694-3910
  Email address: Keshia.Montifolca@sdcounty.ca.gov

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: July 19, 2019

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Keshia Montifolca, 5510 Overland Ave, Suite 410 San Diego, Ca 92123

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District, No file name assigned yet

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: CA County/parish/borough: San Diego City: Lakeside

Center coordinates of site (lat/long in degree decimal format):

Lat.: xx.xxx^{o} Long.: yy.yyy^{o} 32.863561, -116.917775

Universal Transverse Mercator: 507692.92 E, 3636164.46 N, 11S

Name of nearest waterbody: San Diego River

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
roadside ditch	32.863594	-116.918891	0.05/504 LF	non-wetland water	Excluded by 2015 Clean Water Rule
concrete-lined channel	32.863409	-116.920588	0.08/457 LF	non-wetland water	Excluded by 2015 Clean Water Rule

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)
Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: Figures 6a and 6b of Jurisdictional Delineation Report

☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.

☐ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report. Rationale: _____

☐ Data sheets prepared by the Corps: _____

☐ Corps navigable waters' study: _____

☒ U.S. Geological Survey Hydrologic Atlas: San Diego [18070304]

☐ USGS NHD data.

☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name: USGS El Cajon 7.5 Minute Quadrangle, as shown in Figure 1 of JD report

☒ Natural Resources Conservation Service Soil Survey. Citation: USDA NRCS. 2004. See Figure 4 of JD report.

☐ National wetlands inventory map(s). Cite name: _____

☐ State/local wetland inventory map(s): _____

☐ FEMA/FIRM maps: _____

☐ 100-year Floodplain Elevation is: N/A (National Geodetic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): Figures 6a and 6b of JD Report

or ☐ Other (Name & Date): _____

☐ Previous determination(s). File no. and date of response letter: _____

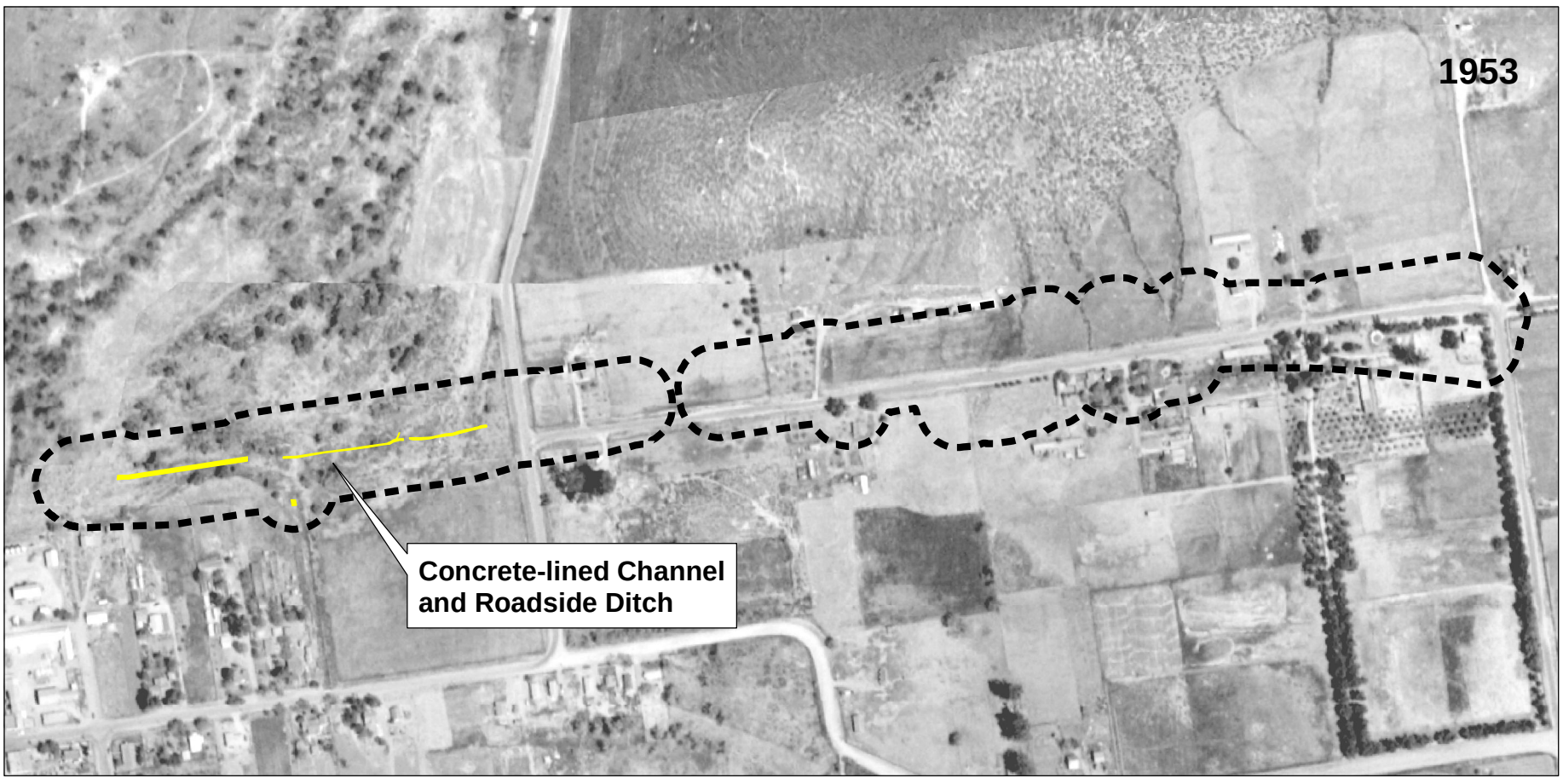
☐ Other information (please specify): _____

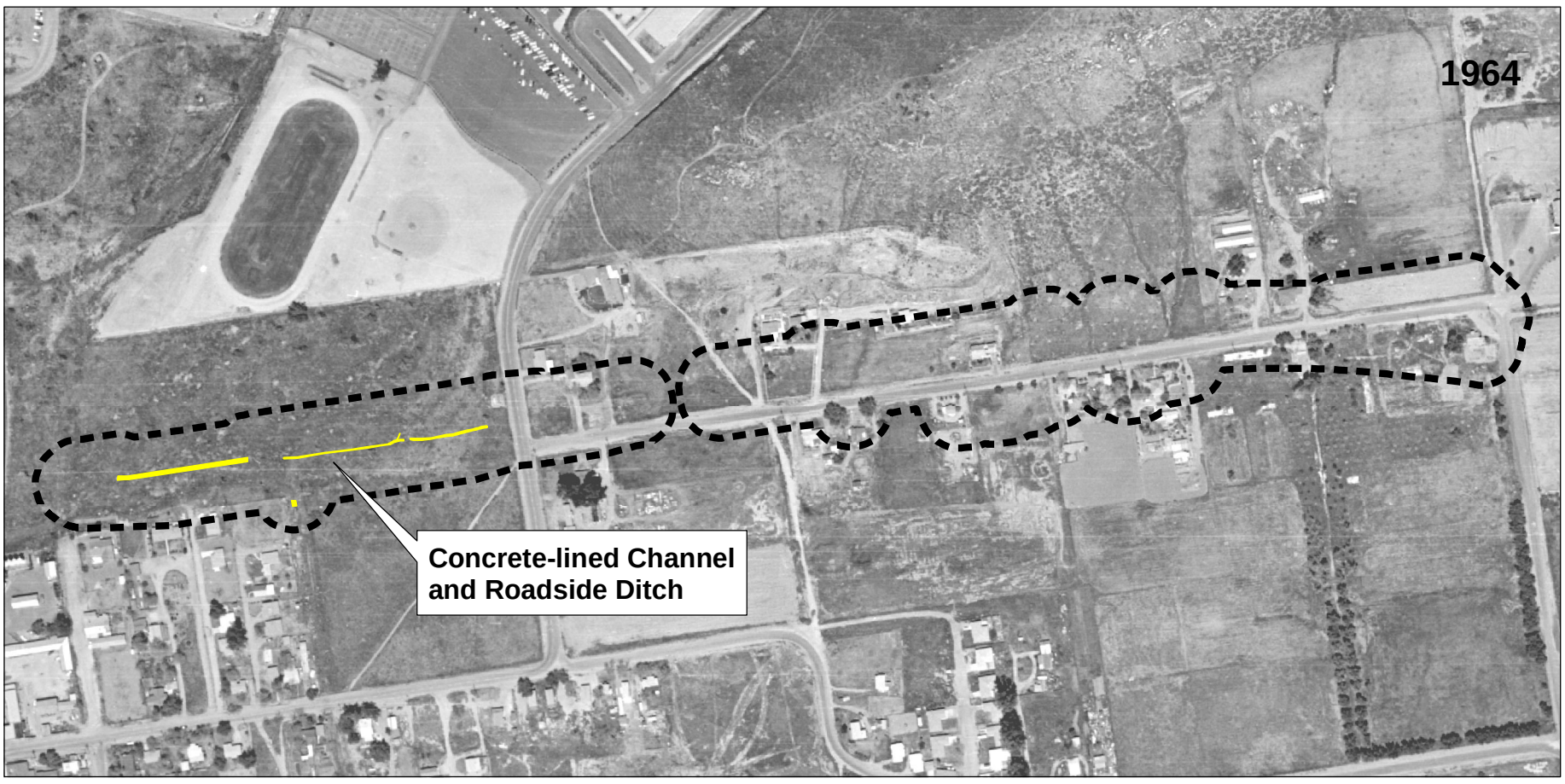
IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Appendix F
Historic Aerial Photographs





SOURCE: Historicaerials.com, 2019.

Mapleview Jurisdictional Delineation

Appendix F
Historic Aerial Photographs

ESA