

APPENDIX B
JURISDICTIONAL DELINEATION

Jurisdictional Delineation Report

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project Placentia, California

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EXECUTIVE SUMMARY

This report provides data regarding the type and extent of jurisdictional resources for the Yorba Linda Water District's (YLWD's) proposed Burlington Northern Santa Fe (BNSF) Waterline Crossing at Veteran's Village and Highland Avenue Project. Jurisdictional resources considered for this report include wetland and non-wetland waters of the United States (WOTUS) regulated by the U.S. Army Corps of Engineers (USACE); waters of the State regulated by the Regional Water Quality Control Board (RWQCB); and waters, including the bed, bank, and channel of all lakes, rivers, and/or streams (and associated wetland and riparian vegetation), as regulated by the California Department of Fish and Wildlife (CDFW).

The limits of non-wetland WOTUS and waters of the State were identified by the presence of an Ordinary High Water Mark (OHWM). Wetland features were identified based on the USACE's three-parameter approach in which wetlands are defined by the presence of hydrophytic vegetation, hydric soils, and wetland hydrology indicators. The limits of RWQCB waters and wetlands are equal those of the USACE unless isolated conditions are present. The limits of CDFW jurisdictional waters were identified as either the top of the stream bank or the outer drip line of riparian vegetation associated with the feature.

The jurisdictional delineation was conducted on April 7, 2022, by Psomas Regulatory Specialist Allison Rudalevige. Based on the results of the field delineation, a single drainage feature (Atwood Channel) occurs in the survey area. The following is a summary of the jurisdictional resources that occur in the survey area:

- **USACE Jurisdiction:** 0.106 acre (0.001 acre of wetland WOTUS and 0.105 acre of non-wetland WOTUS),
- **RWQCB Jurisdiction:** 0.106 acre (0.001 acre of wetland waters of the State and 0.105 acre of non-wetland waters of the State), and
- **CDFW Jurisdiction:** 0.387 acre.

Based on the current Project design, the new 12-inch water pipe will span Atwood Channel which is not expected to require any modifications to the channel bed or banks. Therefore, there are no anticipated impacts to resources under the jurisdiction of the USACE, the RWQCB, or the CDFW.

1.0 INTRODUCTION

This Jurisdictional Delineation Report (report) has been prepared for the Yorba Linda Water District (YLWD) to provide baseline data concerning the type and extent of water resources under the jurisdiction of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) in support of the proposed Burlington Northern Santa Fe (BNSF) Waterline Crossing at Veterans Village and Highland Avenue Project (hereinafter referred to as the “Project”).

1.1 PROJECT LOCATION AND ENVIRONMENTAL SETTING

The survey area for this report consists of a 100-foot buffer on either side of the proposed pipeline alignment which runs southward along Highland Avenue, crossing Orangethorpe Avenue, the BNSF railway, the western terminus of Veterans Way, and Atwood Channel in the city of Placentia, Orange County, California (Exhibit 1). The survey area is surrounded by residential uses to the north, commercial/restaurant uses to the east, Placentia Veterans Village apartments to the south, and residential uses to the west.

The survey area is located on the U.S. Geological Survey’s (USGS’) Orange 7.5-minute quadrangle (Exhibit 2). The survey area is dominated by disturbed (i.e., bare ground) or developed conditions with associated ornamental landscaping plants such as pine (*Pinus* sp.), India hawthorn (*Rhaphiolepis indica*), rosemary (*Salvia rosmarinus*), Pride of Madeira (*Echium candicans*), and turf grass. There is a small area of non-native grass/ruderal vegetation adjacent to Veterans Way that contains native and non-native species such as California poppy (*Eschscholzia californica*), miniature lupine (*Lupinus bicolor*), red brome (*Bromus rubens*), Bermuda grass (*Cynodon dactylon*), and redstem filaree (*Erodium cicutarium*). Surrounding land uses consist of residential and commercial development and the BNSF railway.

1.2 PROJECT BACKGROUND

YLWD currently has two pipelines that cross the BNSF right-of-way on the west end of the service area, one at Richfield Road and one at Lakeview Avenue. In this portion of the service area, the primary source of water is Lakeview Avenue. The Richfield Road pipeline is primarily used as a transmission pipeline to Highland Reservoir during emergencies only. YLWD constructed a water treatment plant at its headquarters and the new pipeline configuration eliminates the distribution option of the Richfield Road waterline. This Project includes construction of a third crossing to loop the system at Placentia Veterans Village apartments and Highland Avenue. In addition, YLWD intends to replace an existing water main crossing at the Orange County Flood Control District (OCFCD) Atwood Channel to the south of Veterans Way to provide additional water system redundancy in this area.

1.3 PROJECT DESCRIPTION

YLWD constructed a new, large water treatment plant known as Plant 1 or PFAS (Per- and Polyfluoroalkyl Substances) Water Treatment Plant at its headquarters, which is currently in service. Due to the high volume of water feeding into and exiting the plant, YLWD can no longer use its existing pipeline in Richfield Road to transport water both to and from the area of the plant. Therefore, YLWD proposes to construct a new water pipeline (new waterline) to transmit water to loop the water system and provide water system redundancy. The proposed pipeline would deliver water to the consumers south of Orangethorpe Avenue, leaving the Richfield Road pipeline to transport water to Highland Reservoir only in the other direction. A new 12-inch pipeline would be constructed to connect from the terminus of Nancita Circle in the south to a point in

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Aerial Source: USGS, USDA NAIP 2020

Project Location

Exhibit 1

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project

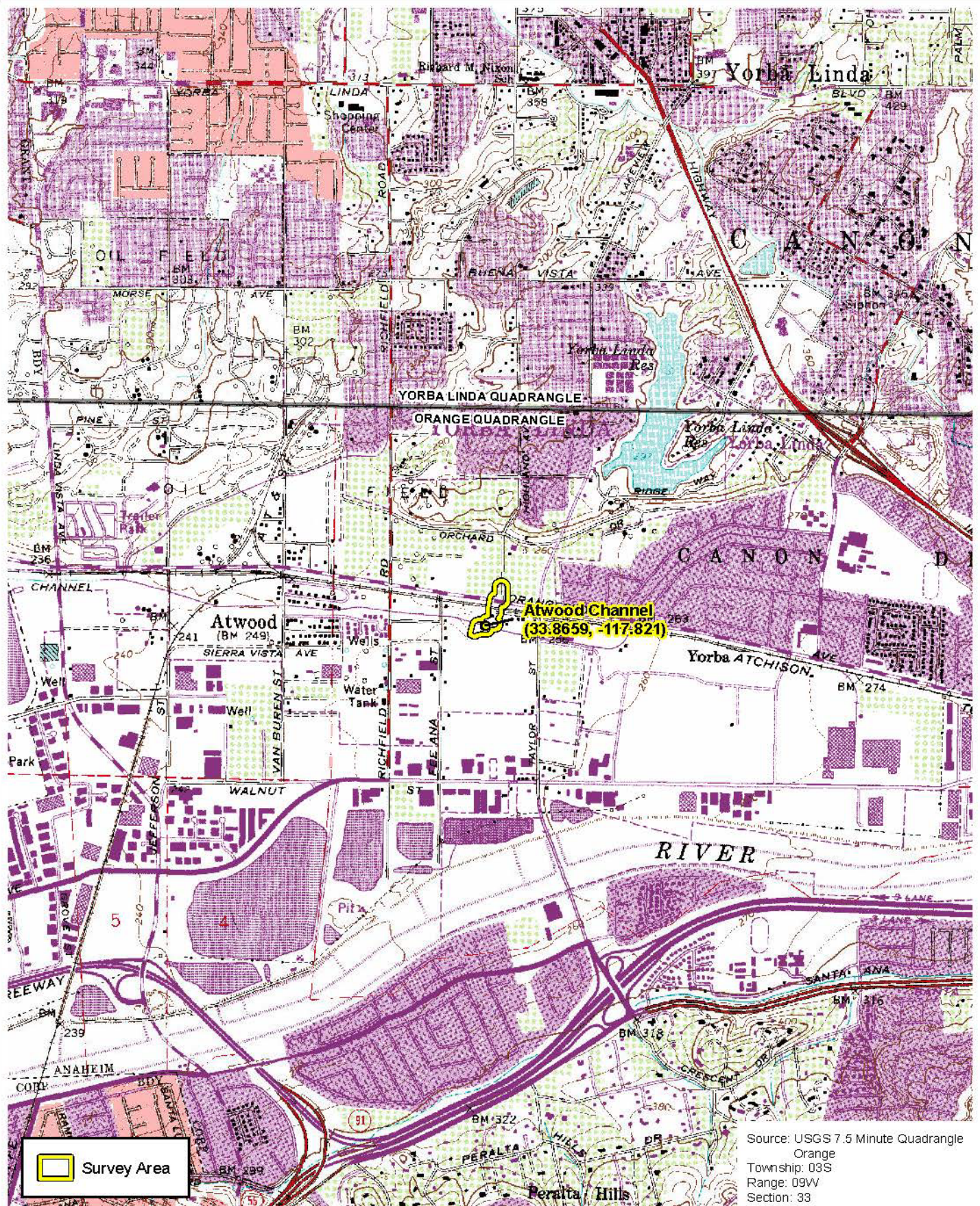


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Feet

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USGS 7.5-Minute Digital Quadrangle

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project

Exhibit 2



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Highland Avenue to the north. As discussed above, the new pipeline would be constructed in two segments that would connect via an existing 10-inch pipeline.

The southern pipeline segment would be constructed from a connection point with an existing 10-inch pipeline that currently terminates in Nancita Circle as shown on Exhibit 3a, Southern Pipeline Segment. The pipeline would extend northeasterly from Nancita Circle into the parking lot at 1919 Nancita Circle, where it would then jog southeasterly for approximately 94 feet parallel to Atwood Channel. From this point, the pipeline would then extend northeasterly across Atwood Channel to Veterans Way, where it would turn south easterly and connect to an existing 10-inch pipeline. The 10-inch existing pipeline continues north from Veterans Way to the current terminus just south of the BNSF right-of-way line through Placentia Veterans Village apartments. Construction of the southern segment of the pipeline would consist primarily of open trench construction within roadway right-of-way. The proposed pipeline crossing of Atwood Channel would be constructed to extend above and outside of the channel, utilizing existing water main pipe supports.

The northern pipeline segment would be constructed from a connection point with the 10-inch pipeline as shown on Exhibit 3b, Northern Pipeline Segment. The new pipeline would be constructed in a northerly direction across BNSF right-of-way to Orangethorpe Avenue. From here, the pipeline would jog southeasterly along Orangethorpe Avenue for approximately 63 feet before turning northward into Highland Avenue. The pipeline would extend northerly along Highland Avenue and connect to an existing 10-inch pipeline located in Highland Avenue near 2007 East Orangethorpe Avenue. Construction of the northern segment of the pipeline would consist primarily of open trench construction, except for the proposed crossing of the BNSF rail line which would be constructed using a jack-and-bore method and access pits on either side of the rail line right-of-way. The southern, or launching bore pit would be 24-feet by 10-feet and would be located within an existing YLWD easement. Because the driveway functions as the only vehicle access point for the apartment complex, YLWD would require that the contractor constructing the bore pit maintain access for residents at all times YLWD would restore all existing hardscape and landscape improvements. The northern, or receiving, bore pit would be 12-feet by 10-feet in size and be constructed within the public right-of-way on the north side of the BNSF railroad.

Work within Nancita Circle, Orangethorpe Avenue, and Highland Avenue would be entirely within public right-of-way. Neither the Atwood Channel area nor the BNSF rail line are within the public right-of-way, however impacts would be limited to above Atwood Channel, or beneath the ground surface at the BNSF crossing. All construction activity would be coordinated with the Orange County Flood Control District (OCFCD) and BNSF, respectively. The total length of all new pipeline would be less than 1,000 feet.

The launching bore pit involves more noise and activities because it is where equipment would be staged. YLWD would place the launching bore pit at Placentia Veterans Village apartments.

1.4 REGULATORY AUTHORITY

Jurisdictional resources considered for this report include wetland and non-wetland waters of the United States (WOTUS) regulated by the USACE; waters of the State regulated by the RWQCB; and waters, including the bed, bank, and channel of all lakes, rivers, and/or streams (and associated wetland and riparian vegetation), as regulated by the CDFW. A detailed explanation of each agency's regulatory authority is provided in Attachment A.

1.4.1 U.S. Army Corps of Engineers

The USACE Regulatory Branch regulates activities that discharge dredged or fill materials into WOTUS under Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers

and Harbors Act. Its authority applies to all WOTUS where the material (1) replaces any portion of a WOTUS with dry land or (2) changes the bottom elevation of any portion of any WOTUS. Activities that result in fill or dredge of WOTUS require a permit from the USACE.

Recently, the definition of WOTUS has been the subject of shifting regulations. In June of 2020, the United States Environmental Protection Agency (USEPA) and the USACE published the Navigable Waters Protection Rule (NWPR) in the *Federal Register* which defined WOTUS as:

1. Territorial seas and Traditional Navigable Waters (TNWs);
2. Tributaries of jurisdictional waters;
3. Lakes, ponds, and impoundments that contribute surface water flow to a jurisdictional water in a typical year; and
4. Wetlands adjacent to non-wetland jurisdictional waters.

The NWPR also identified twelve categories of waters that are considered non-jurisdictional by rule. These include:

1. All waters not covered by the four categories of WOTUS discussed above;
2. Groundwater;
3. Ephemeral features;
4. Storm water runoff and overland sheet flow;
5. All ditches not considered tributaries;
6. Prior converted cropland;
7. Artificially irrigated areas;
8. Certain artificial lakes and ponds;
9. Water-filled depressions or pits excavated in connection with mining or construction or to obtain fill, sand, or gravel;
10. Certain storm water control features;
11. Groundwater recharge, water reuse, and wastewater recycling structures; and
12. Wastewater treatment systems.

On August 30, 2021, the U.S. District Court for the District of Arizona vacated the NWPR, which led regulatory agencies to define WOTUS according to the pre-2015 regulatory regime. Subsequently, on April 6, 2022, the U.S. Supreme Court halted the District Court decision which effectively reinstates the NWPR's definition of WOTUS described above. The USACE will utilize the NWPR definition of WOTUS until the USEPA issues a new final rule which is expected to be released in the spring of 2023.

Attachment A provides additional information on the current status of this regulatory definition.

1.4.2 Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB), in conjunction with the nine RWQCBs, is the primary agency responsible for protecting water quality in California through the regulation of discharges to surface waters under the CWA and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The SWRCB's and RWQCBs' jurisdictions extend to all "waters of the State" and to all WOTUS, including wetlands (isolated and non-isolated).

The Porter-Cologne Act broadly defines "waters of the State" as any surface water or groundwater, including saline waters, within the boundaries of the State." On August 28, 2019, the Office of Administrative Law approved the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to "waters of the State", which went into effect on May 28, 2020. Under these new regulations, the SWRCB and its nine RWQCBs will assert jurisdiction

over all existing WOTUS, and all waters that have been considered WOTUS under any historical definition.

Impacts to WOTUS are authorized by the RWQCBs through a Water Quality Certification per Section 401 of the CWA. Impacts to “waters of the State” that are not considered WOTUS would be authorized by Waste Discharge Requirements issued by the RWQCB.

On April 6, 2022, the U.S. Supreme Court issued a stay of the October 2021 order by the U.S. District Court for the Northern District of California that vacated EPA’s 2020 Clean Water Act Section 401 Certification Rule. The stay of the vacatur applies nationwide. Therefore, the CWA section 401 certification process is once again governed by the CWA section 401 certification regulations promulgated by EPA in 2020, codified at 40 CFR 121. This 2020 rule requires all project proponents to request a pre-filing meeting with the RWQCB at least 30 days prior to filing a 401 “Certification Request”. The filing procedure has been simplified to require the filing of a “Certification Request”, rather than the acceptance of a “complete application”.

There is a mandatory 30 day wait period between a pre-filing meeting request and the filing of a Certification Request. A Certification Request must be filed with the RWQCB and the USACE concurrently. USACE reviews the Certification Request for the nine required components. The USACE has 15 days to review the Certification Request. The USACE then notifies the RWQCB that request is complete. And concurrently notifies the RWQCB of the reasonable time period to act on the Certification Request. The reasonable time period is not to exceed 1 year. Within 15 days of receipt of the Certification Request the RWQCB must provide the applicant with the following: 1) date of receipt; 2) applicable reasonable period of time to act on the Certification Request; and 3) date upon which waiver will occur if the certifying authority fails or refuses to act on the Certification Request.

Once the RWQCB issues the 401 Certification, the USACE has 5 days to notify the USEPA that the 401 Certification has been issued. The USEPA then has 30 days to notify neighboring jurisdictions of the 401 Certification. Neighboring jurisdictions have 60 days to respond. If there are no objections to the 401 Certification, then the USACE issues the 404 permit.

1.4.3 California Department of Fish and Wildlife

The CDFW regulates activities that may affect rivers, streams, and lakes pursuant to the *California Fish and Game Code* (§§1600–1616). According to Section 1602 of the *California Fish and Game Code*, the CDFW has jurisdictional authority and would require a Lake or Streambed Alteration Agreement (LSAA) for any work that will (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

2.0 **METHODS**

2.1 **LITERATURE REVIEW**

Prior to conducting the delineation and during the course of report preparation, Psomas reviewed the following documents to identify areas that may fall under each agency's jurisdiction: the USGS' Orange 7.5-minute quadrangle map; color aerial photography provided by USGS' National Agriculture Imagery Program (NAIP) (dated 2020); historic aerial imagery provided by Nationwide Environmental Title Research, LCC Online (NETR 2022) and Google Earth; soil data provided by the U.S. Department of Agriculture's Natural Resources Conservation Service (Exhibit 3); the National Hydric Soils List (USDA NRCS 2022); the National Wetlands Inventory's Wetland Mapper (Exhibit 4); and the Water Quality Control Plan for the Santa Ana River Basin (Santa Ana RWQCB 1995).

USGS Topographic Quadrangle. USGS quadrangle maps show geological formations and their characteristics and describe the physical settings of an area through topographic contour lines and other major surface features. These features include lakes, streams, rivers, buildings, roadways, landmarks, and other features that may fall under the jurisdiction of one or more regulatory agencies. In addition, the USGS maps provide topographic information that is useful in determining elevations; connectivity of streams, rivers, and other water features; latitude and longitude; and Universal Transverse Mercator Grid coordinates for the survey area.

Color Aerial Photography. Color aerial photographs were reviewed prior to conducting the field delineation to identify the extent of any drainages and riparian vegetation occurring in the survey area. Remote sensing was not used in the delineation.

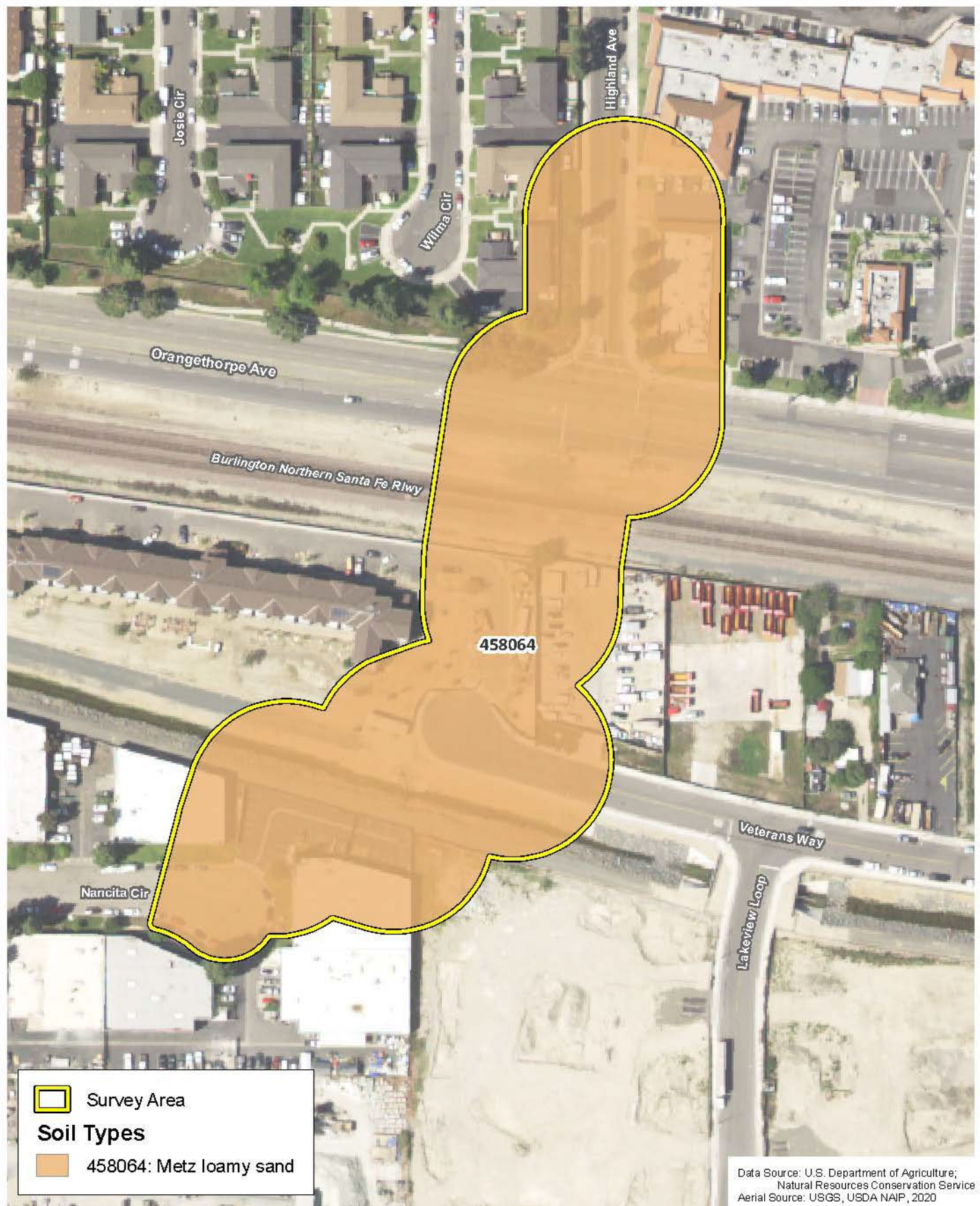
Historic Aerial Photography. Historic aerial imagery was reviewed to identify changes in the landscape, including human modifications, and past conditions on the site.

U.S. Department of Agriculture, Natural Resources Conservation Service. Psomas reviewed U.S. Department of Agriculture (USDA) soil data for the survey area. The USDA soil data identifies soils that are considered hydric which may indicate that jurisdictional wetland conditions are present.

U.S. Fish and Wildlife Service, National Wetlands Inventory: The Wetlands Mapper shows wetland resources available from the Wetlands Spatial Data Layer of the National Spatial Data Infrastructure (USFWS 2022). This resource provides the classification of known wetlands following the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC 2013). This classification system is arranged in a hierarchy of (1) Systems that share the influence of similar hydrologic, geomorphologic, chemical, or biological factors (i.e., Marine, Estuarine, Riverine, Lacustrine, and Palustrine); (2) Subsystems (i.e., Subtidal and Intertidal; Tidal, Lower Perennial, Upper Perennial, and Intermittent; or Littoral and Limnetic); (3) Classes, which are based on substrate material and flooding regime or on vegetative life forms; (4) Subclasses, which recognize finer differences in life forms or substrate material than the Class; and (5) Dominance Types, which are named for the dominant plant or wildlife forms. In addition, modifying terms are applied to Classes or Subclasses.

The mapped water resources were used to provide additional guidance on identifying potentially jurisdictional waters during the field survey. Given that wetland features mapped by the National Wetlands Inventory (NWI) may or may not exist at a site because of changing conditions and development, this resource provides only preliminary data and historic data based on aerial photographic interpretation and, therefore, must be ground-truthed.

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Soil Types

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project



130 65 0 130
Feet

Exhibit 3



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National Wetlands Inventory

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project

Exhibit 4



130 65 0 130
Feet



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Regional Water Quality Control Plans. California has nine RWQCBs. The survey area is located in RWQCB Region 8, the Santa Ana Region. The Santa Ana RWQCB has adopted a Water Quality Control Plan (or “Basin Plan”) for this region. The Basin Plan contains goals and policies, descriptions of conditions, and proposed solutions to surface and groundwater issues. The Basin Plan also establishes water quality standards for surface and groundwater resources and includes beneficial uses and levels of water quality that must be met and maintained to protect these uses. These water quality standards are implemented through various regulatory permits pursuant to the CWA, specifically Section 401 for Water Quality Certifications and Section 402 for Report of Waste Discharge (ROWD) permits.

2.2 JURISDICTIONAL DELINEATION

The jurisdictional delineation was conducted on April 7, 2022, by Psomas Regulatory Specialist Allison Rudalevige. Areas that are potentially under the jurisdiction of the USACE, RWQCB, and/or CDFW were delineated using a 1 inch equals 130 feet (1" = 130') scale aerial photograph loaded onto Avenza Maps application on an Apple iPad (accuracy $\leq$ 15 feet). Due to the steep streambanks along Atwood Channel, it was not possible to excavate a soil test pit to determine if hydric soil indicators were present. Vegetated portions of Atwood Channel were assessed to determine if such areas would be considered wetlands based on the presence of wetland hydrology and hydrophytic vegetation. Representative photographs of the survey area are included in Attachment B.

2.2.1 USACE Waters of the United States

Psomas assessed if WOTUS are present in the survey area by determining if the on-site resources have a connection to a Traditional Navigable Waterway (TNW). The extent of non-wetland WOTUS were delineated based on the limits of the OHWM, which can be determined by a number of factors, including (1) the presence of a clear, natural line impressed on the bank; (2) shelving along the bank; (3) changes in the character of the soil; (4) destruction of terrestrial vegetation; and (5) the presence of litter and debris. The OHWM limits (i.e., active floodplain) occurring in the survey area were further verified using methods contained in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual* (Lichvar and McColley 2008) and the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Curtis and Lichvar 2010).

The extent of jurisdictional wetland resources was evaluated based on the USACE's three-parameter approach to identify wetlands. In September 2008, the USACE issued the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008). This regional supplement is designed for use with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). Both the 1987 Wetlands Manual and the Arid West Supplement to the manual provide technical methods and guidelines for determining the presence of wetland WOTUS. The three parameters needed to assign a site as a wetland include evidence of wetland hydrology, hydrophytic vegetation, and hydric soils. However, problem areas may periodically or permanently lack certain indicators due to seasonal or annual variability or the nature of the soils or plant species on site. Atypical wetlands lack certain indicators due to recent human activities or natural events. Guidance for determining the presence of wetlands in these situations is presented in the regional supplement.

2.2.2 RWQCB Waters of the State

Psomas determined the limits of RWQCB jurisdiction in the field following the methods described above for USACE jurisdiction. The RWQCB shares USACE jurisdiction unless isolated conditions are present (i.e., lack of connectivity to a TNW or hydrological regime that does not meet the definition of WOTUS). If isolated waters are present, the RWQCB takes jurisdiction using the USACE's definition of the OHWM and/or the three-parameter wetlands method pursuant to the 1987 Wetlands Manual (Environmental Laboratory 1987); however, unvegetated areas may also be considered wetlands.

2.2.3 CDFW Waters

CDFW's jurisdiction was determined measuring the distance between the top of the streambank on either side of the on-site water features on site. If riparian vegetation is associated with the subject streambed, the CDFW's jurisdictional limits would extend to the outer limit of the riparian vegetation canopy.

3.0 **RESULTS**

Atwood Channel is the only potentially jurisdictional feature that was encountered in the survey area. Atwood Channel flows into Carbon Canyon Diversion Channel, which flows into the Santa Ana River. The Santa Ana River discharges into the Pacific Ocean, a TNW, in the city of Huntington Beach.

The results of the literature review are provided in Section 3.1 and a detailed analysis of each regulatory agency's jurisdiction is provided in Section 3.2. Attachment C provides datasheets that summarize the overall condition of the individual wetlands, drainages, and indicators of OHWM.

3.1 **LITERATURE REVIEW**

USGS Topographic Quadrangle. Atwood Channel is depicted on the USGS' Orange quadrangle in the survey area (Exhibit 2). Topography in the survey area is relatively flat. The elevation is approximately 260 feet above mean sea level.

Color Aerial Photography. Atwood Channel is clearly shown on aerial imagery. It appears to be partly lined and partly unlined. There is minimal vegetation and no riparian canopy overhanging the channel.

Historic Aerial Photography. Aerial imagery from 1966 shows creation of Atwood Channel. Prior to that year, the area appeared to be used for agriculture with a drainage nearby. Surface water appears to be present over multiple years and season based on Google Earth aerial imagery, including April and December 2003; March and April 2004; August and December 2005; January 2006; October 2007; November 2009; September 2010; March 2011; April 2013; April 2014; March 2015; February and October 2016; March and December 2017; March, April, and June 2018; May 2019; March and October 2020; and February and August 2021.

U.S. Department of Agriculture, Natural Resources Conservation Service. The survey area occurs in the following soil survey area: Orange County and Part of Riverside County, California (CA678). Within this soil survey area, the U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS) has delineated the boundaries of "soil map units", which often contain components of multiple soil types that may be classified as hydric or non-hydric. The National Hydric Soils List (USDA NRCS 2022) identifies a soil map unit as "hydric" if it contains either a major or minor component that is at least in part hydric.

Soil mapped in the survey area is Metz loamy sand (Exhibit 3). This soil is listed as hydric on the National List for the soil survey area in which it occurs (USDA NRCS 2022). A description of the soils mapped in the survey area is provided in Attachment D of this report.

U.S. Fish and Wildlife Service, National Wetlands Inventory. Atwood Channel is mapped as wetlands by the NWI (Exhibit 4). It is classified as a Riverine, intermittent streambed that is seasonally flooded and has an artificial substrate (R4SBCr). The description for NWI mapped wetland resources is provided in Attachment D of this report.

Regional Water Quality Control Plans. Atwood Channel is not named in the Santa Ana River Basin Plan; however, it is located in the Los Angeles-San Gabriel River Hydrologic Unit, Yorba Linda Hydrologic Subarea (HSA) Split (845.63) (Santa Ana RWQCB 1995). The Basin Plan does not provide water quality objectives for Atwood Channel. Numeric objectives have not been established for other surface waters in HSA 845.63 (i.e., Aliso Creek and Carbon Canyon Creek); see the Basin Plan for narrative objectives.

Beneficial uses are defined in the Porter-Cologne Act as those uses of water that are necessary for tangible and intangible economic, social, and environmental benefits. Beneficial uses are not provided for Atwood Channel. The beneficial uses listed for other surface waters in HSA 845.63 include Municipal (MUN) waters; Groundwater Recharge (GWR) waters; Water Contact Recreation (REC-1) waters; Non-contact Water Recreation (REC-2) waters; Warm Fresh Water Habitat (WARM) waters; Wildlife Habitat (WILD) waters; and Rare, Threatened or Endangered Species (RARE) waters. Given the artificial nature of Atwood Channel compared to the other creeks in the HSA, some of these uses may not be applicable. Descriptions of the beneficial uses applicable to waters in the survey area are provided in Attachment D of this report.

3.2 JURISDICTIONAL WATER RESOURCES

Atwood Channel is an artificially created drainage feature that crosses the survey area. Based on review of USGS topographic maps, it flows westward until it reaches Carbon Canyon Diversion Channel, which flows into the Santa Ana River and ultimately into the Pacific Ocean.

Atwood Channel has a trapezoidal cross-section with well-defined bed and banks. The channel bottom alternates between being unlined, concrete-lined, and lined with ungrouted riprap. Surface water was present at the time of the field survey, which was performed at the beginning of the dry season. Surface water is also observed over multiple seasons and years based on historic aerial imagery. Given the highly developed nature of the surrounding and upstream land uses (i.e., dense residential and commercial development), this water was likely the result of nuisance runoff from the surrounding development. Based on these observations, Atwood Channel likely experiences intermittent or perennial flow.

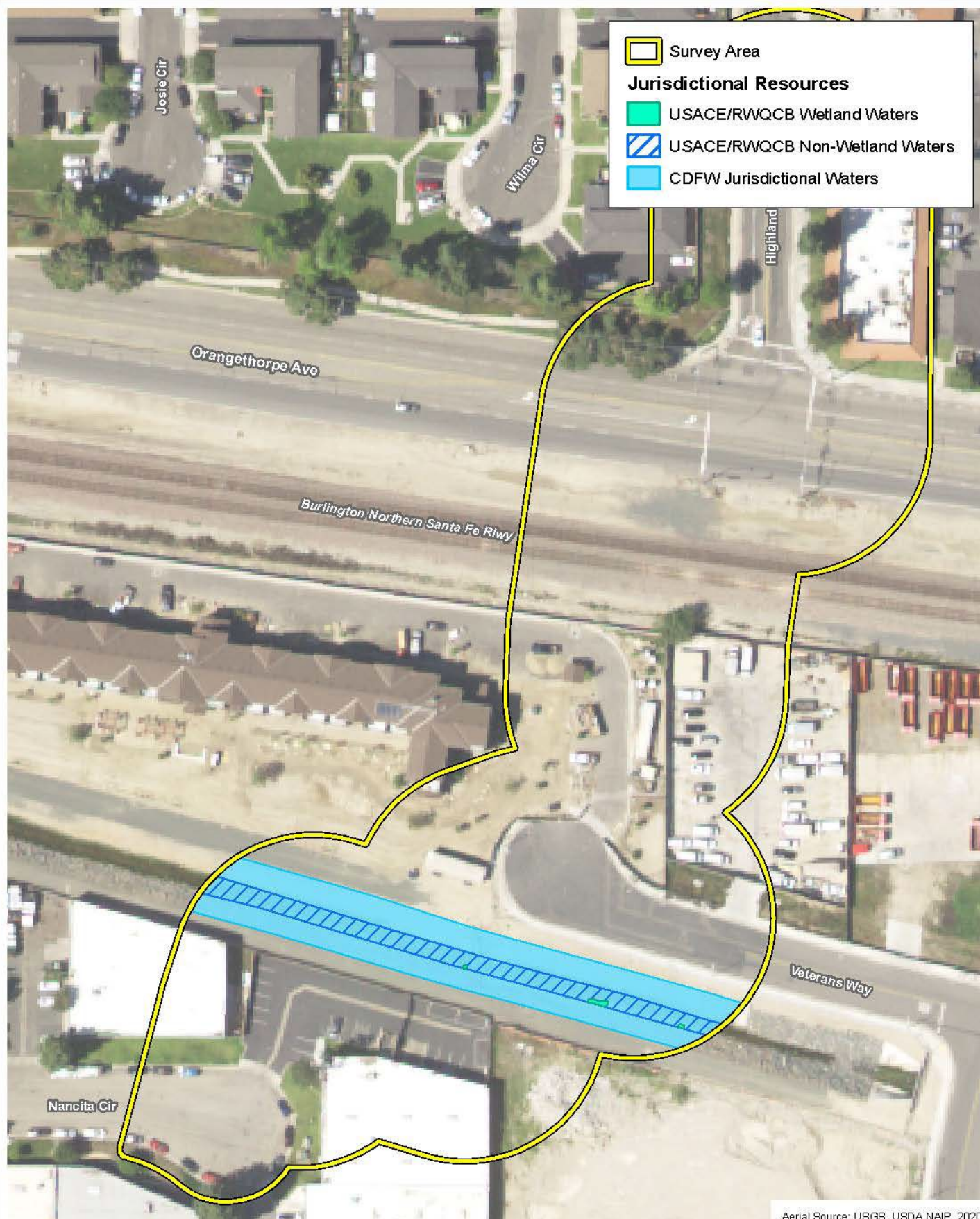
Vegetation was sparse and limited to herbaceous species present near the toe of slope. There were patches of cattail (*Typha* sp.; an obligate wetland species) in the channel bottom. Vegetation along the toe of the slope is dominated by facultative upland and upland species.

Evidence of an OHWM consists of change in vegetation cover (obligate wetland species present in the channel bottom with facultative upland and upland species near the toe of slope); a break in bank slope; and the presence of surface flow.

3.3 JURISDICTIONAL ANALYSIS

Table 1 summarizes the type and extent of the jurisdictional features in the survey area and Exhibit 5 shows the jurisdictional resources.

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Jurisdictional Resources

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project

Exhibit 5



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Feet



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TABLE 1
SUMMARY OF JURISDICTIONAL RESOURCES IN THE SURVEY AREA

Drainage Cowardin Type	Dominant Vegetation Location	Latitude/Longitude OHWM Width	(ft)	Length	(linear ft)	Amount in Survey Area (acres) USACE WOTUS Wetlands	Amount in Survey Area (acres) USACE WOTUS Non-wetlands	Amount in Survey Area (acres) RWQCB Waters of the State Wetlands	Amount in Survey Area (acres) RWQCB Waters of the State Non-wetlands	CDFW Waters
Atwood Channel	R4SBCr ^a	wetland and upland herbs; unvegetated flood control channel	33.8659, -117.821	16	400	0.001	0.105	0.001	0.105	0.387
-	-	-	-	-	Total	0.001	0.105	0.001	0.105	0.387

ft: feet; USACE: U.S. Army Corps of Engineers; WOTUS: waters of the U.S.; RWQCB: Regional Water Quality Control Board; CDFW: California Department of Fish and Wildlife.

^a This Cowardin type was obtained from the National Wetlands Inventory (USFWS 2022).

3.3.1 Waters of the United States Determination

Based on review of USGS topographic maps, Atwood Channel ultimately discharges into the Pacific Ocean. Based on the presence of surface water during the site visit and on review of historic aerial imagery, the drainage appears to carry relatively permanent or perennial flow. Relatively permanent waters that are tributaries to a TNW are considered WOTUS. Therefore, Atwood Channel would be considered WOTUS.

Approximately 0.106 acre of WOTUS under the regulatory authority of the USACE occurs in the survey area (Table 1; Exhibit 5).

Please note: Based on the April 6, 2022, U.S. Supreme Court decision, the USACE's NWPR definition of WOTUS is currently in effect. However, the USEPA is likely to put forth a revised definition of WOTUS in 2023.

USACE Wetlands Determination

Atwood Channel is sparsely vegetated, which presents a problematic vegetation situation. Only areas containing cattail, an obligate wetland species, were considered to have hydrophytic vegetation. Multiple indicators of wetland hydrology were observed, including surface water, inundation visible on aerial imagery, and drift deposits. Due to the steep nature of the channel banks, a soil test pit was not able to be excavated and the presence/absence of hydric soils could not be confirmed. The Arid West supplement provides a procedure for determining the presence of hydric soils in problematic situations. The landscape setting is appropriate for wetlands (i.e., the area is level or nearly level at the toe of a slope). Based on direct hydrologic observations of surface water and presence of surface water over multiple years of historic aerial imagery, it can be reasonably inferred that the soil is flooded for extended periods of time during the growing season. Therefore, the soil would be considered hydric.

Of the 0.106 acre of WOTUS mapped in the survey area, 0.001 acre would be considered wetland WOTUS (Table 1; Exhibit 5).

3.3.2 Regional Water Quality Control Board Jurisdiction

As a WOTUS, Atwood Channel is also subject to the jurisdiction of the RWQCB. Therefore, approximately 0.106 acre of waters of the State under the regulatory authority of the RWQCB occurs in the survey area (Table 1; Exhibit 5). Of this 0.106 acre, 0.001 acre would be considered wetland waters of the State.

3.3.3 California Department of Fish and Wildlife Jurisdiction

Atwood Channel exhibits a distinct bead and bank without a riparian canopy. The CDFW's regulatory authority extends to the top of the channel's banks. Therefore, approximately 0.387 acre of waters under the CDFW's jurisdiction occurs in the survey area (Table 1; Exhibit 5).

4.0 **CONCLUSIONS**

Approximately 0.106 acre of USACE WOTUS (0.001 acre of wetland WOTUS and 0.105 acre of non-wetland WOTUS), 0.106 acre of waters of the State (0.001 acre of wetland waters of the State and 0.105 acre of non-wetland waters of the State), and 0.387 acre of CDFW jurisdictional waters occur in the survey area.

Based on the current Project design, the new 12-inch waterline will span Atwood Channel without disturbing the bed or banks of the channel. Because no impacts are anticipated to areas under the jurisdiction of the USACE, the RWQCB, or the CDFW, no regulatory agency permits would be required.

If Project design changes require modifications to Atwood Channel, then the following permits, agreements, and/or certifications may be required prior to initiation of Project activities that involve impacts to jurisdictional waters:

- USACE Section 404 Permit
- RWQCB Section 401 Water Quality Certification
- CDFW Section 1602 Lake or Streambed Alteration Agreement

5.0 DISCLAIMER STATEMENT

This report represents Psomas' summary of the jurisdictional resources delineated in the survey area. The descriptions and maps provided are Psomas' jurisdictional recommendation based on the field evidence, regulations, and environmental information available. Only the regulatory agencies can make the final determination on whether the features present are subject to USACE, RWQCB, and/or CDFW regulatory authority.

6.0 REFERENCES

- Curtis, K.E. and R.W. Lichvar. 2010 (July). *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. Hanover, NH: USACE, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.
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ATTACHMENT A
SUMMARY OF REGULATORY AUTHORITY

REGULATORY AUTHORITY

This attachment summarizes the regulatory authority of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) over activities that have potential to impact jurisdictional resources.

U.S. Army Corps of Engineers

The USACE Regulatory Branch regulates activities that discharge dredged or fill materials into waters of the United States (WOTUS) under Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. This permitting authority applies to all WOTUS where the material (1) replaces any portion of WOTUS with dry land or (2) changes the bottom elevation of any portion of any WOTUS. These fill materials would include sand, rock, clay, construction debris, wood chips, and materials used to create any structure or infrastructure in these waters.

Waters of the United States

WOTUS can be divided into three categories: territorial seas, tidal waters, or non-tidal waters. The term WOTUS is defined by the *Code of Federal Regulations*¹ (CFR).

The U.S. Supreme Court issued three decisions that provide context and guidance in determining the appropriate scope of WOTUS. In *United States v. Riverside Bayview Homes*,² the Court upheld the inclusion of adjacent wetlands in the regulatory definition of WOTUS. In *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC),³ the Court held that the use of “isolated” non-navigable intrastate ponds by migratory birds was not, by itself, sufficient basis for the exercise of federal regulatory authority under the CWA. In *Rapanos v. United States* (Rapanos),⁴ a majority of the U.S. Supreme Court overturned two Sixth Circuit Court of Appeals decisions, finding that certain wetlands constituted WOTUS under the CWA. In his plurality opinion, Justice Scalia argued that WOTUS should not include channels through which water flows intermittently or ephemerally or channels that periodically provide drainage for rainfall. He also stated that a wetland may not be considered “adjacent to” remote WOTUS based on a mere hydrologic connection. Justice Kennedy authored a separate concurring opinion concluding that wetlands are WOTUS if they, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as “navigable”. Lacking a majority opinion, regulatory jurisdiction under the CWA exists over a water body if either the plurality’s or Justice Kennedy’s “significant nexus” standard is satisfied.

In 2015, the USACE and the U.S. Environmental Protection Agency (USEPA) published a final rule (2015 Rule) clarifying the scope of WOTUS protected under the CWA. One of the major changes was to make all tributaries and adjacent waters jurisdictional, by rule.

In December 2018, the USEPA and the Department of the Army (DOA) proposed a new definition of WOTUS that clarifies federal authority under the federal CWA consistent with the February 2017 Presidential Executive Order entitled “Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the ‘Waters of the United States’ Rule”. On September 12, 2019, the USEPA and DOA signed a final “Step One Rule” to repeal the 2015 Rule and re-codify the regulatory text

¹ Specifically, Title 33, Navigation and Navigable Waters; Part 328, Definition of waters of the United States; §328.3, Definitions.

² *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985)

³ *Solid Waste Agency of Northern Cook Cty. v. Army Corps of Engineers*, 531 U.S. 159 (2001)

⁴ Consolidated cases: *Rapanos v. United States* and *Carabell v. United States* (126 S. Ct. 2208 2006) refer to the U.S. Supreme Court’s decision concerning USACE jurisdiction over waters of the United States under the CWA.

defining WOTUS that existed prior to the 2015 Rule. The new regulations went into effect on December 23, 2019.⁵ With this new final rule, the regulations defining the scope of federal CWA jurisdiction are those portions of the CFR as they existed before the amendments promulgated in the 2015 rule.

The Step One Rule was replaced by the Navigable Waters Protection Rule (Step Two Rule) (NWPR). On January 23, 2020, the USEPA and DOA finalized the Step Two Rule defining WOTUS. This rule was published in the *Federal Register* on April 21, 2020, and went into effect 60 days following publication (i.e., on June 22, 2020). The Step Two Rule changed the definition of WOTUS. Under this new definition, WOTUS encompasses (1) territorial seas and Traditional Navigational Waters (TNWs); (2) perennial and intermittent tributaries that contribute surface water flow to such waters; (3) certain lakes, ponds, and impoundments of jurisdictional waters; and (4) wetlands adjacent to other jurisdictional waters.

Under the rule, a wetland is considered “adjacent” if it:

1. Abuts (i.e., touches a side or corner of) another non-wetland jurisdictional water;
2. Is inundated by flooding from another non-wetland jurisdictional water at least once in a typical year;
3. Is physically separated from a non-wetland jurisdictional water by a natural berm, bank, dune, or similar natural feature without regard to whether there is a specific hydrological surface connection in a typical year; or
4. Is physically separated from a non-wetland jurisdictional water by an artificial structure like a road, dike, or barrier as long as the structure allows for a direct hydrologic surface connection between the wetland and the other jurisdictional water at least once in a typical year. This connection can be through a gate or culvert or even by water overtopping a road.

The NWPR also identifies waters specifically excluded from consideration as WOTUS. The twelve categories of non-jurisdictional waters include:

1. All waters not covered by the four categories of WOTUS discussed above;
2. Groundwater;
3. Ephemeral features;
4. Storm water runoff and overland sheet flow;
5. All ditches not considered tributaries;
6. Prior converted cropland;
7. Artificially irrigated areas;
8. Certain artificial lakes and ponds;
9. Water-filled depressions or pits excavated in connection with mining or construction or to obtain fill, sand, or gravel;
10. Certain storm water control features;
11. Groundwater recharge, water reuse, and wastewater recycling structures; and
12. Wastewater treatment systems

⁵ 40 CFR 230.3(s).

Under this new definition, the following notable changes were implemented:

- Rivers and streams that contribute perennial or intermittent flow to downstream TNWs are jurisdictional but ephemeral features are not considered jurisdictional.
- The process of determining whether a “significant nexus” exists between a water and a downstream TNW as directed under the agencies’ 2008 *Rapanos* guidance or whether a water has a significant nexus to a TNW, interstate water, or territorial sea has been eliminated.
- No ditches constructed in upland and no ditches with ephemeral flow would be considered jurisdictional.
- Wetlands must either abut jurisdictional waters or have a direct hydrological surface connection to jurisdictional waters in a typical year to be jurisdictional themselves; wetlands physically separated from jurisdictional waters by a berm, dike, or other barrier are not adjacent if they lack a direct hydrologic surface connection to a jurisdictional water in a typical year.

On June 9, 2021, the USEPA and DOA announced their intent to revise the definition of WOTUS to better protect our nation’s vital water resources that support public health, environmental protection, agricultural activity, and economic growth. Until a new rule is in effect, WOTUS would be defined by the NWPR. However, On August 30, 2021, the U.S. District Court for the District of Arizona vacated and remanded the NWPR for reconsideration to the USEPA and the USACE.⁶ At that time, the agencies halted implementation of the NWPR and interpreted WOTUS consistent with the pre-2015 regulatory regime. Subsequently, on April 6, 2022, the U.S. Supreme Court halted the District Court decisions, effectively reinstating the NWPR’s definition of WOTUS described above. The USACE will utilize the NWPR definition of WOTUS until the USEPA issues a new final rule.

Ordinary High Water Mark

The landward limit of tidal WOTUS is the high-tide line. In non-tidal waters where adjacent wetlands are absent, the lateral limits of USACE jurisdiction extend to the ordinary high water mark (OHWM).⁷ The OHWM is defined as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas”.⁸ When wetlands are present, the lateral limits of USACE jurisdiction extend beyond the OHWM to the limits of the adjacent wetlands.⁹

Wetlands

A wetland is a subset of jurisdictional waters and is defined by the USACE and the USEPA as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions”.¹⁰ Wetlands generally include swamps, marshes, bogs, and areas containing similar features.

⁶ *Pasqua Yaqui Tribe, et al. v. U.S. Environmental Protection Agency, et al.*

⁷ U.S. Army Corps of Engineers (USACE). 2005 (December 7). Regulatory Guidance Letter. Ordinary High Water Mark Identification. Washington, D.C.: USACE.

⁸ *Code of Federal Regulations* (CFR), Title 33, §328.3(e)

⁹ USACE 2005

¹⁰ 33 CFR §328.3(b)

The definition and methods for identifying wetland resources can be found in the USACE's *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*,¹¹ a supplement to the 1987 *Corps of Engineers Wetlands Delineation Manual*.¹² Both the 1987 Wetlands Manual and the 2008 Arid West Supplement to the manual provide technical methods and guidelines for determining the presence of wetland WOTUS. Pursuant to these manuals, a three-parameter approach is used to identify wetlands and requires evidence of wetland hydrology, hydrophytic vegetation, and hydric soils. In order to be considered a wetland, an area must figure one or more indicators of all three of these parameters. However, problem areas may periodically or permanently lack certain indicators for reasons such as seasonal or annual variability of rainfall, vegetation, and other factors. Atypical wetlands lack certain indicators due to recent human activities or natural events. Guidance for determining the presence of wetlands in these situations is presented in the regional supplement.

Section 404 Permit

Except as specified in Section 323.4 of the CFR, impacts to WOTUS require a Section 404 Permit. Permit authorization may be in the form of (1) a “general permit” authorizing a category of activities in a specific geographical region or nationwide or (2) an “individual permit” (IP) following a review of an individual application form (to be obtained from the district office having jurisdiction over the waters in which the activity is proposed to be located).

Regulatory authorization in the form of a Nationwide Permit (NWP) is provided for certain categories of activities such as repair, rehabilitation, or replacement of a structure or fill which was previously authorized; utility line placement; or bank stabilization. The current set of NWPs became effective on March 19, 2017 and will expire in on March 18, 2022. On January 13, 2021, the USACE reissued 12 NWPs and published 4 new NWPs; these 16 NWPs went into effect on March 15, 2021 and will expire on March 14, 2026. The 40 existing NWPs that were not reissued or modified by the January 13, 2021, final rule remain in effect. NWPs authorize only those activities with minimal adverse effects on the aquatic environment and are valid only if the conditions applicable to the permits are met or waivers to these conditions are provided in writing from the USACE. Please note that waivers may require consultation with affected federal and State agencies, which can be a lengthy process with no mandated processing time frames. Certain activities do not require submission of an application form, but may require a separate notification. If the NWP conditions cannot be met, an IP will be required. WOTUS temporarily filled, flooded, excavated, or drained but restored to pre-construction contours and elevations after construction are not included in the measurement of loss of WOTUS. The appropriate permit authorization will be based on the amount of impacts to WOTUS, as determined by the USACE. There is no filing fee for the Section 404 Permit.

Approximately three or four months are typically required to process a routine permit application; large or complex activities may take longer to process. When a permit application is received, it will be assigned an identification number and reviewed for completeness by the District Engineer. If an application is incomplete, additional information will be requested within 15 days of receipt of the application. If an application is complete, the District Engineer will issue a public notice within 15 days unless specifically exempted by provisions of the CFR. Public comments will be accepted no more than 30 days but not less than 15 days from the date of public notice; these will become part of the administrative record of the application. Generally, the District Engineer will decide on the application no later than 60 days after receipt of the completed application.

¹¹ USACE. 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. (J.S. Wakeley, R.W. Lichvar, and C.V. Noble, Eds.). Vicksburg, MS: U.S. Army Engineer Research and Development Center.

¹² Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1)*. Vicksburg, MS: U.S. Army Engineer Waterways Experiment Station.

Additional permit situations may increase the permit processing time (e.g., projects involving a Section 401 Water Quality Certification, a coastal zone management consistency analysis, historic properties, a federal agency, and/or Endangered species). The Project Applicant will be given time, not to exceed 30 days, to respond to requests of the District Engineer.

On January 31, 2007, the USACE published a memorandum clarifying the Interim Guidance for Amendments to the National Historic Preservation Act and the Advisory Council on Historic Preservation (ACHP) implementing regulations.¹³ The Interim Guidance applies to all Department of the Army requests for authorization/verification, including Individual Permits (IPs, i.e., standard permits and letters of permission) and all Regional General Permits (RGPs) and Nationwide Permits (NWP). The State or Tribal Historic Preservation Officer (SHPO/THPO) has 30 days to respond to a determination that a proposed activity, which otherwise qualifies for an NWP or an RGP, has no effect or no adverse effect on a historic property. If the SHPO/THPO does not respond within 30 days of notification, the Los Angeles District may proceed with verification. If the SHPO/THPO disagrees with the District's determination, the District may work with the SHPO/THPO to resolve the disagreement or request an opinion from the ACHP. The USACE will submit the Draft Jurisdictional Delineation Report to the SHPO/THPO for review prior to initiating the actual regulatory process.

Please note that, if the USACE determines that the drainages/waterbodies are jurisdictional and would be impacted by project implementation, the Applicant will be required to obtain a CWA Section 401 Water Quality Certification from the RWQCB before the USACE will issue the Section 404 Permit. If the USACE determines that the impacted drainage/waterbody is not jurisdictional, the Applicant will be required to obtain RWQCB authorization under the provisions of a Report of Waste Discharge (ROWD).

Jurisdictional Determinations

Pursuant to USACE Regulatory Guidance Letter 08-02 (dated June 26, 2008), the USACE can issue two types of jurisdictional determinations to implement Section 404 of the CWA: Approved Jurisdictional Determinations and Preliminary Jurisdictional Determinations.¹⁴ An Approved Jurisdictional Determination is an official USACE determination that jurisdictional WOTUS, Navigable WOTUS, or both are either present or absent on a site. An Approved Jurisdictional Determination also identifies the precise limits of jurisdictional waters on a project site.

The USACE will provide an Approved Jurisdictional Determination when (1) an Applicant requests an official jurisdictional determination; (2) an Applicant contests jurisdiction over a particular water body or wetland; or (3) when the USACE determines that jurisdiction does not exist over a particular water body or wetland. The Approved Jurisdictional Determination then becomes the USACE's official determination that can then be relied upon over a five-year period to request regulatory authorization as part of the permit application.

In addition, an Applicant may decline to request an Approved Jurisdictional Determination and instead obtain a USACE IP or General Permit Authorization based on a Preliminary Jurisdictional Determination or, in certain circumstances (e.g., authorizations by non-reporting nationwide general permits), with no Jurisdictional Determination.

Preliminary Jurisdictional Determinations are non-binding, advisory in nature, and may not be appealed. They indicate that WOTUS may occur on a project site. An Applicant may elect to use a Preliminary Jurisdictional Determination to voluntarily waive or set aside questions regarding

¹³ USACE. 2007 (January 31). Memorandum: Interim Guidance for Amendments to the National Historic Preservation Act and the Advisory Council on Historic Preservation (ACHP) Implementing Regulations. Washington, D.C.: USACE.

¹⁴ USACE. 2008b (June 26). Regulatory Guidance Letter. Jurisdictional Determinations. Washington, D.C.: USACE.

CWA jurisdiction over a site, usually in the interest of expediting the permitting process. The USACE will determine what form of Jurisdictional Determination is appropriate for a particular project site.

The USACE Regulatory Branch Offices will coordinate with the USEPA Regional Office and USACE Headquarters, as outlined in its January 28, 2008, memorandum entitled "Process for Coordinating Jurisdictional Determinations Conducted Pursuant to Section 404 of the CWA in Light of the Rapanos and SWANCC Supreme Court Decisions".¹⁵ The guidance provided in this memorandum is quoted as follows:

1. Effective immediately, unless and until paragraph 5(b) of the June 5, 2007, Rapanos guidance coordination memorandum is modified by a joint memorandum from Army and USEPA, we will follow these procedures:
 - a. For jurisdictional determinations involving significant nexus determinations, USACE districts will send copies of draft jurisdictional delineations via e-mail to appropriate USEPA regional offices. The USEPA regional office will have 15 calendar days to decide whether to take the draft jurisdictional delineation as a special case under the January 19, 1989, "Memorandum of Agreement Between the Department of the Army and the USEPA Concerning the Determination of the Section 404 Program and the Application of the Exceptions under Section 404(f) of the Clean Water Act". If the USEPA regional office does not respond to the district within 15 days, the district will finalize the jurisdictional determination.
 - b. For jurisdictional determinations involving isolated waters determinations, the agencies will continue to follow the procedure in paragraph 5(b) of June 5, 2007, coordination memorandum, until a new coordination memorandum is signed by USACE and USEPA. (In accordance with paragraph 6 of the June 5, 2007, coordination memorandum, this is a 21-day timeline that can only be changed through a joint memorandum between agencies).
2. Approved Jurisdictional Determinations are not required for non-reporting NWPs, unless the project proponent specifically requests an approved Jurisdictional Determination. For proposed activities that may qualify for authorization under a State Programmatic General Permit (SPGP) or RGP, an approved Jurisdictional Determination is not required unless requested by the project proponent.
3. The USACE will continue to work with USEPA to resolve the Jurisdictional Determinations involving significant nexus and isolated waters determinations that are currently in the elevation process.
4. USACE districts will continue posting completed Approved Jurisdictional Determination Forms on their web pages.

¹⁵ USACE. 2008c (January 28). *Memorandum for Commander, Major Subordinate Commands and District Commands. Process for Coordinating Jurisdictional Determinations Conducted Pursuant to Section 404 of the Clean Water Act in Light of the Rapanos and SWANCC Supreme Court Decisions*. Washington, D.C.: USACE.

Regional Water Quality Control Board

The RWQCB is the primary agency responsible for protecting water quality in California through the regulation of discharges to surface waters under the CWA and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The RWQCB's jurisdiction extends to all waters of the State and to all WOTUS, including wetlands (isolated and non-isolated).

Section 401 of the CWA provides the RWQCB with the authority to regulate, through a Water Quality Certification, any proposed, federally permitted activity that may affect water quality. Among such activities are discharges of dredged or fill material permitted by the USACE pursuant to Section 404 of the CWA. Section 401 requires the RWQCB to provide certification that there is reasonable assurance that an activity which may result in discharge to navigable waters will not violate water quality standards. Water Quality Certification must be based on a finding that the proposed discharge will comply with water quality standards, which contain numeric and narrative objectives that can be found in each of the nine RWQCBs' Basin Plans.

The Porter-Cologne Act provides the State with very broad authority to regulate waters of the State (which are defined as any surface water or groundwater, including saline waters). The Porter-Cologne Act has become an important tool in the post-SWANCC (*Solid Waste Agency of Northern Cook Counties vs. United States Army Corps of Engineers*) and Rapanos era with respect to the State's authority over isolated waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file an ROWD when there is no federal nexus, such as under Section 404(b)(1) of the CWA. Although "waste" is partially defined as any waste substance associated with human habitation, the RWQCB interprets this to include fill discharge into water bodies.

Section 401 Water Quality Certification

Issuance of the USACE Section 404 Permit would be contingent upon the approval of a Section 401 Water Quality Certification from the RWQCB. Also, the RWQCB requires certification of the project's California Environmental Quality Act (CEQA) documentation before it will approve the Section 401 Water Quality Certification or ROWD. The RWQCB, as a responsible agency, will use the project's CEQA document to satisfy its own CEQA-compliance requirements.

On June 1, 2020, the USEPA finalized the "Clean Water Act Section 401 Certification Rule" to implement the water quality certification process consistent with the text and structure of the CWA. The final rule establishes procedures that promote consistent implementation of CWA section 401 and regulatory certainty in the federal licensing and permitting process. The new regulation includes reviews and approvals by the USACE prior to the RWQCB issuing a 401 Certification and reviews and approvals by the EPA prior to the USACE issuing a 404. The new 401 rule went into effect on September 11, 2020.

The new certification rule defines a discharge subject to 401 Certification as a discharge from a point source into a water of the United States. The new rule also states that States with additional water quality regulations cannot use these to expand the certification request.

The new rule requires all project proponents to request a pre-filing meeting with the RWQCB at least 30 days prior to filing a 401 "Certification Request". The filing procedure has been simplified to require the filing of a "Certification Request", rather than the acceptance of a "complete application". The certification request has nine mandatory components:

1. identify the project proponent(s) and a point of contact;
2. identify the proposed project;

3. identify the applicable federal license or permit;
4. identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters;
5. include a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge;
6. include a list of all other federal, interstate, tribal, State, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received;
7. include documentation that a pre-filing meeting request was submitted to the certifying authority at least 30 days prior to submitting the certification request;
8. contain the following statement: "The project proponent hereby certifies that all information contained herein is true, accurate, and complete, to the best of my knowledge and belief"; and
9. contain the following statement: "The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time".

There is a mandatory 30 day wait period between a pre-filing meeting request and the filing of a Certification Request. A Certification Request must be filed with the RWQCB and the USACE concurrently. USACE reviews the Certification Request for the nine required components. The USACE has 15 days to review the Certification Request. The USACE then notifies the RWQCB that request is complete. And concurrently notifies the RWQCB of the reasonable time period to act on the Certification Request. The reasonable time period is not to exceed 1 year. Within 15 days of receipt of the Certification Request, the RWQCB must provide the applicant with the following: 1) date of receipt; 2) applicable reasonable period of time to act on the Certification Request; and 3) date upon which waiver will occur if the certifying authority fails or refuses to act on the Certification Request.

Once the RWQCB issues the 401 Certification, the USACE has 5 days to notify the USEPA that the 401 Certification has been issued. The USEPA then has 30 days to notify neighboring jurisdictions of the 401 Certification. Neighboring jurisdictions have 60 days to respond. If there are no objections to the 401 Certification, then the USACE issues the 404 permit.

On June 2, 2021, the USEPA published a notice of intention to reconsider and revise the CWA Section 401 Certification Rule. At this time, they are currently accepting public comment. Until a new rule goes into effect, the current 401 Certification Rule stands.

The RWQCB is required under the *California Code of Regulations* (CCR) to have a "minimum 21 day public comment period" before any action can be taken on the Section 401 application.¹⁶ This period closes when the RWQCB acts on the application. Since projects often change or are revised during the Section 401 permit process, the comment period can remain open. The public comment period starts as soon as an application has been received. Generally, the RWQCB Section 401, USACE Section 404, and CDFW Section 1602 permit applications are submitted at the same time.

The RWQCB requires the Applicant to address urban storm water runoff during and after construction in the form of Best Management Practices (BMPs). These BMPs are intended to address the treatment of pollutants carried by storm water runoff and are required in all complete applications. The notification/application for a CWA Section 401 Water Quality

¹⁶ 23 CCR §3858(a)

Certification must also address compliance with the Basin Plan. Please note that filing an application would also require the payment of an application fee which would be based on project impacts. The fee schedule calculator is available at http://www.waterboards.ca.gov/santaana/water_issues/programs/401_certification/index.shtml.

California Department of Fish and Wildlife

The CDFW has jurisdictional authority over wetland resources associated with rivers, streams, and lakes pursuant to the *California Fish and Game Code*.¹⁷ Activities of any person, State or local governmental agency, or public utility that are project proponents are regulated by the CDFW under Section 1602 of the *California Fish and Game Code*. This section regulates any work that will (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Section 1602 of the *California Fish and Game Code* applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State.

The CDFW jurisdictional limits are not as clearly defined by regulation as those of the USACE. While they closely resemble the limits described by USACE regulations, they include riparian habitat supported by a river, stream, or lake regardless of the presence or absence of hydric and saturated soils conditions. In general, the CDFW takes jurisdiction from the top of a stream bank or to the outer limits of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place within or in the vicinity of a river, stream, lake or within or in the vicinity of tributaries to a river, stream, or lake. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish and other aquatic plant and/or wildlife species. It also includes watercourses that have a surface or subsurface flow that support or have supported riparian vegetation.

Section 1602 Lake or Streambed Alteration Agreement

The CDFW enters into a Lake or Streambed Alteration (LSA) Agreement with a project proponent in order to ensure protection of wildlife and habitat values and acreages.

Prior to construction, a Notification of an LSA must be submitted to the CDFW that describes any proposed lake or streambed alteration that would occur with implementation of a project. The Notification of an LSA must address the initial construction and long-term operation and maintenance of any structures (such as a culvert or a desilting basin) included in the project design that are located within any river, stream, or lake and that may require periodic maintenance. In addition to the formal application materials and the fee, a copy of the appropriate environmental document (e.g., a Mitigated Negative Declaration) should be included in the submittal, consistent with CEQA requirements. The complete notification package must be submitted to the CDFW regional office that services the county where the activity will take place. This notification will serve as the basis for the CDFW's issuance of a Section 1602 LSA Agreement. Note that notification is not required before beginning emergency work, but the CDFW must be notified in writing within 14 days after beginning the work.

After receiving Notification of an LSA Agreement, the CDFW will determine whether an LSA Agreement will be required for the proposed activity. An LSA Agreement will be required if the

¹⁷ See §§1600–1616.

activity could substantially adversely affect an existing fish and wildlife resource. If an LSA Agreement is required, the CDFW may want to conduct an on-site inspection.

If the CDFW does not respond in writing concerning the completeness of the Notification within 30 days of its submittal, the Notification automatically becomes complete. If the CDFW does not submit a draft LSA Agreement to the Applicant within 60 days of the determination of a completed Notification package, the CDFW will issue a letter that either (1) identifies the final date to transmit a draft LSA Agreement or (2) indicates that an LSA Agreement was not required. The CDFW will also indicate that it was unable to meet this mandated compliance date and that, by law, the Applicant is authorized to complete the project without an LSA Agreement as long as the Applicant constructs the project as proposed and complies with all avoidance, minimization, and mitigation measures described in the submitted Notification package. Please note that, if the project requires revisions to the design or project construction, the CDFW may require submittal of a new Notification/application with an additional 90-day permit process.

If determined to be necessary, the CDFW will prepare a draft LSA Agreement, which will include standard measures to protect fish and wildlife resources during project construction and during ongoing operation and maintenance of any project element that occurs within a CDFW jurisdictional area. The draft Agreement must be transmitted to the Applicant within 60 calendar days of the CDFW's determination that the notification is complete. It should be noted that the 60-day timeframe might not apply to long-range agreements.

Following receipt of a draft LSA Agreement from the CDFW, the Applicant has 30 calendar days to notify the CDFW concerning the acceptability of the proposed terms, conditions, and measures. If the Applicant agrees with these terms, conditions, and measures, the Agreement must be signed and returned to the CDFW. The Agreement becomes final once the CDFW executes it and an LSA Agreement is issued. Please note that all application fees must be paid and the final certified CEQA documentation must be provided prior to the CDFW's execution of the Agreement.

ATTACHMENT B
REPRESENTATIVE PHOTOGRAPHS



Survey Area



Photo Location

Photo 1

33.866, -117.821

Facing South

Existing pipeline over Atwood Channel.

Photo 2

33.8659, -117.821

Facing West

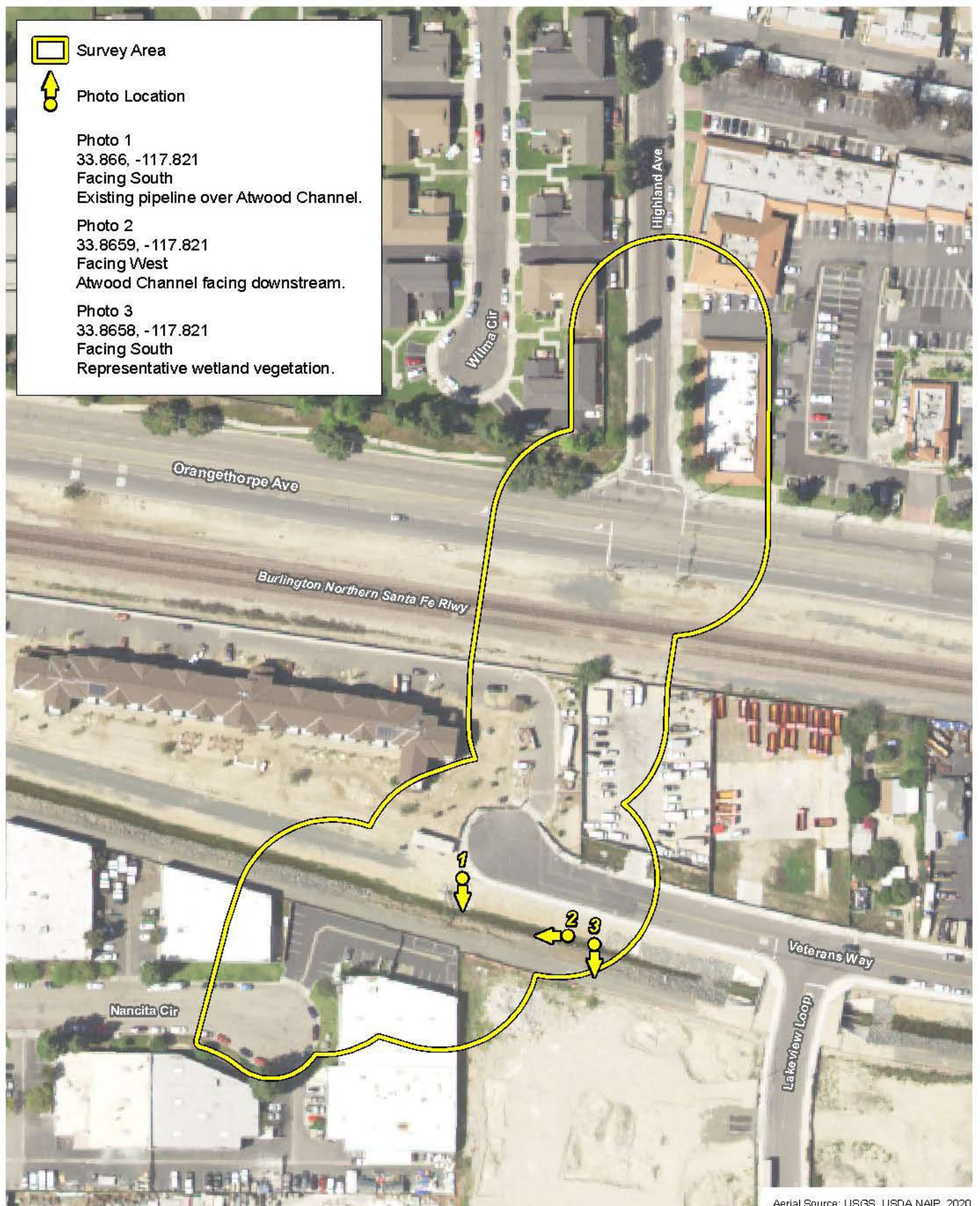
Atwood Channel facing downstream.

Photo 3

33.8658, -117.821

Facing South

Representative wetland vegetation.



Aerial Source: USGS, USDA NAIP, 2020

Representative Photograph Locations

Attachment B-1

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project



130 65 0 130
Feet



(Rev: 8-03-2022 JVR) R:\Projects\2YOR\2YOR030203\Graphics\UD\AR_PhotoLocations.pdf



Photo 1. Existing pipeline crossing Atwood Channel. April 7, 2022.



Photo 2. Overview of Atwood Channel from the upstream (east) end of the survey area facing downstream (west). April 7, 2022.

Representative Photographs

Attachment B-2

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project





Photo 3. Representative wetland vegetation, i.e., cattail (*Typha* sp.), an obligate wetland species. April 7, 2022.

Representative Photographs

Attachment B-3

BNSF Waterline Crossing at Veterans Village and Highland Avenue Project



ATTACHMENT C
DATASHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: BNSF Waterline Crossing City/County: Placentia, Orange Co Sampling Date: Apr 7, 2022
 Applicant/Owner: Yorba Linda Water District State: CA Sampling Point: 1
 Investigator(s): Allison Rudalevige Section, Township, Range: Sec 33 T03S R09W
 Landform (hillslope, terrace, etc.): trapezoidal channel Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): CA Lat: 33.8659 Long: -117.821 Datum: NAD83
 Soil Map Unit Name: Metz loamy sand NWI classification: R4SBCr

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 No X
 Are Vegetation X, Soil X, 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>	Is the Sampled Area within a Wetland? 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>	
Remarks: <u>Channel was historically (prior to 1966) created by human activities</u>		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Sapling/Shrub Stratum (Plot size: <u>5'</u>)				Prevalence Index worksheet: Total % Cover of: <u>0</u> = Total Cover OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Typha sp.</u>	<u>30</u>	<u>X</u>	<u>OBL</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Woody Vine Stratum (Plot size: <u> </u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
% Bare Ground in Herb Stratum <u> </u> % Cover of Biotic Crust <u> </u>				

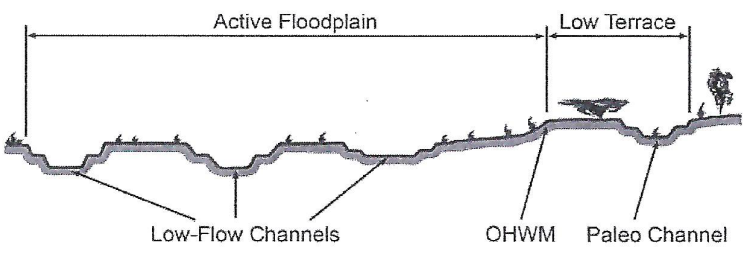
Remarks:
"Sparse + patchy vegetation" is a problematic vegetation condition. Only areas dominated by Typha are considered to have wetland vegetation. Other vegetated areas are dominated by FACU or UPL species (e.g. Melilotus indicus, Lactuca serriola, Bromus diandrus)

Sampling Point: _____

HYDROLOGY

Arid West – Version 2.0

Arid West Ephemeral and Intermittent Streams OHW M Datasheet

Project: BNSF Waterline Crossing Project Number: 2YOR 030203 Stream: Atwood Channel Investigator(s): ARudatevige		Date: Apr 7, 2022 Time: 0945 Town: Placentia State: CA Photo begin file#: Photo end file#:					
Y ☐ / N ☒ Do normal circumstances exist on the site?		Location Details: west of Veterans Way + Lakeview Loop					
Y ☐ / N ☒ Is the site significantly disturbed?		Projection: lat/long Datum: NAD 83 Coordinates: 33.8659, -117.821					
Potential anthropogenic influences on the channel system: Channel was historically (prior to 1966) created by human activity							
Brief site description: Artificial channel partially unlined and partially lined.							
Checklist of resources (if available): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> ☒ Aerial photography Dates: 1966, 1963, 2020 ☒ Topographic maps ☐ Geologic maps ☐ Vegetation maps ☒ Soils maps ☐ Rainfall/precipitation maps ☐ Existing delineation(s) for site ☐ Global positioning system (GPS) ☐ Other studies </td> <td style="width: 50%; vertical-align: top;"> ☐ Stream gage data Gage number: Period of record: ☐ History of recent effective discharges ☐ Results of flood frequency analysis ☐ Most recent shift-adjusted rating ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event </td> </tr> </table>				☒ Aerial photography Dates: 1966, 1963, 2020 ☒ Topographic maps ☐ Geologic maps ☐ Vegetation maps ☒ Soils maps ☐ Rainfall/precipitation maps ☐ Existing delineation(s) for site ☐ Global positioning system (GPS) ☐ Other studies	☐ Stream gage data Gage number: Period of record: ☐ History of recent effective discharges ☐ Results of flood frequency analysis ☐ Most recent shift-adjusted rating ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event		
☒ Aerial photography Dates: 1966, 1963, 2020 ☒ Topographic maps ☐ Geologic maps ☐ Vegetation maps ☒ Soils maps ☐ Rainfall/precipitation maps ☐ Existing delineation(s) for site ☐ Global positioning system (GPS) ☐ Other studies	☐ Stream gage data Gage number: Period of record: ☐ History of recent effective discharges ☐ Results of flood frequency analysis ☐ Most recent shift-adjusted rating ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event						
Hydrogeomorphic Floodplain Units 							
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHWM and record the indicators. Record the OHWM position via: <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td>☒ Mapping on aerial photograph</td> <td>☐ GPS</td> </tr> <tr> <td>☐ Digitized on computer</td> <td>☐ Other:</td> </tr> </table>				☒ Mapping on aerial photograph	☐ GPS	☐ Digitized on computer	☐ Other:
☒ Mapping on aerial photograph	☐ GPS						
☐ Digitized on computer	☐ Other:						

Wentworth Size Classes

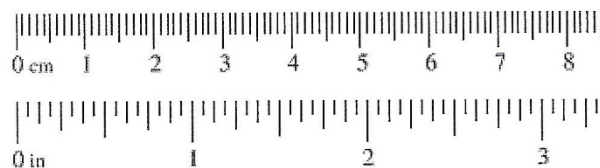
Inches (in)	Millimeters (mm)	Wentworth size class
10.08	256	Boulder
2.56	64	Cobble
0.157	4	Pebble
		Granule
0.079	2.00	Very coarse sand
0.039	1.00	Coarse sand
0.020	0.50	Medium sand
1/2 0.0098	0.25	Fine sand
1/4 0.005	0.125	Very fine sand
1/8 0.0025	0.0625	
1/16 0.0012	0.031	Coarse silt
1/32 0.00061	0.0156	Medium silt
1/64 0.00031	0.0078	Fine silt
1/128 0.00015	0.0039	Very fine silt
		Clay

Gravel

Sand

Silt

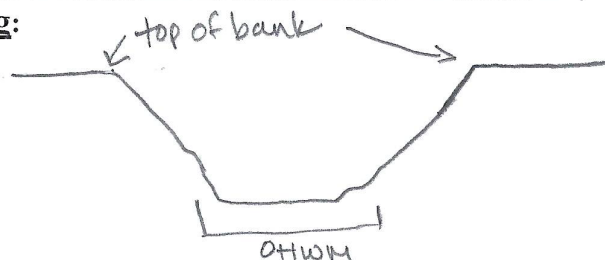
Mud



Project ID: 240R030203 Cross section ID: 1

Date: Apr 7, 2022 Time: 0945

Cross section drawing:



OHWM

GPS point: 33.8659, -117.821

Indicators:

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

- ☒ Break in bank slope
- ☒ Other: surface water
- ☐ Other:

Comments:

Trapezoidal channel with vegetation growing at toe of slope.

Floodplain unit:

☒ Low-Flow Channel

☐ Active Floodplain

☐ Low Terrace

GPS point: 33.8659, -117.821

Characteristics of the floodplain unit:

Average sediment texture: loamy

Total veg cover: 5% Tree: 0% Shrub: 0% Herb: 5%

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)

- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches

- ☐ Soil development
- ☐ Surface relief
- ☒ Other: surface water
- ☐ Other:
- ☐ Other:

Comments:

Confined channel with no floodplain. A mix of OBL, FACU, + UPL vegetation but area primarily unvegetated.

Project ID: 270R 030203 Cross section ID: 1

Date: Apr 7, 2012 Time: 0945

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

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

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

Community successional stage:

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

Indicators:

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

Comments:

no active floodplain present

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

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

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

Community successional stage:

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

Indicators:

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

Comments:

no low terrace present

ATTACHMENT D
LITERATURE REVIEW DETAILS

This attachment provides detailed results of the literature review.

SOIL SERIES

The below text is the detailed soil information obtained from the Map Unit Description found in the legend of the USDA NRCS website.¹⁸

163—Metz loamy sand

Map Unit Setting

- *National map unit symbol:* hcn8
- *Elevation:* 30 to 2,500 feet
- *Mean annual precipitation:* 20 inches
- *Mean annual air temperature:* 57 to 61 degrees Fahrenheit
- *Frost-free period:* 200 to 340 days
- *Farmland classification:* Prime farmland if irrigated

Map Unit Composition

- *Metz and similar soils:* 80 percent
- *Minor components:* 20 percent
- *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Metz

Setting

- *Landform:* Alluvial fans
- *Landform position (two-dimensional):* toeslope
- *Landform position (three-dimensional):* side slope
- *Down-slope shape:* concave
- *Across-slope shape:* convex
- *Parent material:* Alluvium derived from mixed sources

Typical profile

- *H1 – 0 to 17 inches:* loamy sand
- *H2 – 17 to 63 inches:* stratified sand to fine sandy loam

Properties and qualities

- *Slope:* 0 to 2 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Somewhat excessively drained
- *Runoff class:* low
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 inches/hour)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Calcium carbonate, maximum content:* 5 percent
- *Maximum salinity:* Nonsaline to very slightly saline)0.00 to 2.0 mmhos/cm)
- *Available water supply, 0 to 60 inches:* low (about 5.4 inches)

¹⁸ U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2022. Web Soil Survey. Records for the survey area, as Area of Interest. Further information about Soil Map Units. Lincoln, NE: USDA NRCS <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.

Interpretive groups

- *Land capability classification (irrigated): 2s*
- *Land capability classification (nonirrigated): 4e*
- *Hydrologic Soil Group: B*
- *Ecological site: R019XD035CA – Sandy (1975)*
- *Hydric soil rating: No*

Minor Components

San Emigdio, fine sandy loam

- *Percent of map unit: 4 percent*
- *Hydric soil rating: No*

Hueneme, fine sandy loam

- *Percent of map unit: 4 percent*
- *Hydric soil rating: No*

Corralitos, loamy sand

- *Percent of map unit: 4 percent*
- *Hydric soil rating: No*

Riverwash

- *Percent of map unit: 4 percent*
- *Hydric soil rating: Yes*

Metz, mod fine substratum

- *Percent of map unit: 4 percent*
- *Hydric soil rating: No*

NATIONAL WETLANDS INVENTORY

One wetland resource was mapped by the National Wetlands Inventory in the survey area (see Exhibit 4). The description for mapped resource is provided below.¹⁹

- **R: System RIVERINE.** The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 part per trillion (ppt) or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.
 - **4: Subsystem INTERMITTENT.** This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.
 - **SB: Class STREAMBED.** Includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.
 - **A: Water Regime SEASONALLY FLOODED.** Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.
 - **r: Special Modifier ARTIFICIAL SUBSTRATE.** This modifier describes concrete-lined drainage ways, as well as rock bottom, unconsolidated bottom, rocky shore, and unconsolidated shore where the substrate material has been emplaced by humans. Jetties and breakwaters are examples of artificial rocky shores.

¹⁹ U.S. Fish and Wildlife Service (USFWS). 2022. Wetland Mapper [Information for the Survey Area]. Washington, D.C.: USFWS, National Wetlands Inventory. <http://www.fws.gov/wetlands/Data/Mapper.html>.

BASIN PLAN BENEFICIAL USES

Beneficial uses are defined in the Porter-Cologne Act as those uses of water that are necessary for tangible and intangible economic, social, and environmental benefits. The *Water Quality Control Plan Santa Ana River Basin (8)* (Basin Plan) identifies a number of beneficial uses for unnamed tributary to the San Diego River (Santa Ana RWQCB 1995): Municipal and Domestic Supply (MUN) waters; Groundwater Recharge (GWR) waters; Water Contact Recreation (REC-1) waters; Non-contact Water Recreation (REC-2) waters; Warm Fresh Water Habitat (WARM) waters; Wildlife Habitat (WILD) waters; and Rare, Threatened or Endangered Species (RARE) waters.²⁰ Given that the Project replaces an existing pipeline, it is not expected to have an impact on beneficial uses.

- MUN waters are used for community, military, municipal, or individual water supply systems. These uses may include, but are not limited to, drinking water supply. This beneficial use may apply to Atwood Channel.
- GWR waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality, or halting saltwater intrusion into freshwater aquifers. This beneficial use may apply to Atwood Channel.
- REC-1 waters are used for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs. Given that Atwood Channel is fenced off from the public in the vicinity of the survey area, this beneficial use is not applicable.
- REC-2 waters are used for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting sightseeing, or aesthetic enjoyment in conjunction with the above activities. Given that Atwood Channel is fenced off from the public in the vicinity of the survey area, this beneficial use is not applicable.
- WARM waters support warm water ecosystems that may include, but are not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife (including invertebrates). This beneficial use may apply to Atwood Channel.
- WILD waters support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources. This beneficial use may apply to Atwood Channel.
- RARE waters support the habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under State or federal law as Rare, Threatened, or Endangered. Atwood Channel does not provide suitable habitat for federally or State-listed species; therefore, this beneficial use is not applicable.

²⁰ Santa Ana Regional Water Quality Control Board (Santa Ana RWQCB). 1995 (as amended through 2019). *Water Quality Control Plan: Santa Ana River Basin (8)*. Santa Ana, CA: RWQCB.